



**MANAV RACHNA
UNIVERSITY**

Declared as State Private University vide Haryana Act 26 of 2014

ANNUAL REPORT

ACADEMIC YEAR

2019-2020



MANAV RACHNA UNIVERSITY

Sector -43, Aravalli Hills, Surajkund Road, Faridabad, Haryana -121003

INDEX

S. No.	Description	Page No.
	Chapter 1: About the University	02 – 18
1.1	Executive Summary	02
1.2	Statutory Recognition	04
1.3	Vision	04
1.4	Mission	04
1.5	Quality Policy	04
1.6	Officers of the University	05 – 08
1.7	Governance	09 – 11
1.8	Advisory Boards	12 – 13
1.9	Other Committees of the University	14 – 18
	Chapter 2: Academics at Manav Rachna University	19 – 31
2.1	Faculties & Departments of the University	19 – 21
2.2	Doctoral Program	21 – 23
2.3	Teaching Learning Process	23 – 25
2.4	Faculty members of the University	25 – 28
2.5	Students on Roll	28
2.6	Scholarships	28 – 31
	Chapter 3: Assessment and Evaluation	32 – 50
3.1	Calendars (Academic & Examination)	31 – 42
3.2	Examination Cell	42 – 43
3.3	Result Analysis	43 – 46
3.4	Open House Reports	46 – 48
3.5	Automation of Examination on ERP	48 – 50
	Chapter 4: Research Development and Innovations	51 – 69
4.1	Research and Publications	51
4.2	Major Research & Development Events Organized	52
4.3	Research Endeavors, Innovation & Incubation	52 – 57
4.4	IPR cell	58 – 59
4.5	Manav Rachna Business Incubator	59 – 60
4.6	Innovations and Competitions won	60 – 63
4.7	Research Computing Cluster	64
4.8	Research Integrated UG Programs	64 – 67
4.9	Institutional Social Responsibility (ISR)	67 – 69
	Chapter 5: Training and Placements	70 – 73
5.1	Summer Training Modules (In House)	70 – 72
5.2	Student Placement Opportunities	72 – 73

	Chapter 6: Achievements of Faculty	76 – 82
6.1	E-Content Developed	76
6.2	Membership of International / National Societies / Committees / Sessions Chaired / Lectures Delivered	76 – 78
6.3	Webinars & Workshops Organised	78 – 79
6.4	Certifications Awarded to the Faculty	80 – 82
	Chapter 7: Outreach & Professional Activities	83 – 111
7.1	Students' Achievements	83 – 86
7.2	Events organized In House	86 – 93
7.3	Visit to Industries & Exhibitions	94 – 95
7.4	Orientation 2K19	96
7.5	3 rd Convocation Ceremony	97 – 98
7.6	Alumni Network	99 – 100
7.7	Expert Lectures	100 – 102
7.8	Webinars by External Experts	103 – 108
7.9	International Collaborations & Linkages	109
7.10	Green Initiatives	109-111
	Chapter 8: Internal Quality Assurance Cell (IQAC)	112 – 120
8.1	FDP Organised	112 – 113
8.2	Public Lecture Series	113
8.3	SWAYAM-NPTEL	114 – 116
8.4	Virtual labs	116 – 117
8.5	IQAC Calendar	118 – 119
8.6	Internal Academic Audit	119 – 120
	Chapter 9: New Initiatives	121 – 136
9.1	Innovative Practices in Teaching	121 – 124
9.2	Centre for Academic Leadership	124 – 126
9.3	Manav Rachna Centre for peace and Sustainability	127 – 130
9.4	Center of Excellence in Alternative Dispute Resolution (CADR)	131 – 133
9.5	Teacher On Call	133
9.6	MoU's Signed	134 – 136
	Chapter 10: Manav Rachna Creating Buzz...	137 – 139

Annexure No	Particular	Page No
Annex 4.1	Research Publications in Journals	141 – 153
Annex 4.2	Research Publications in Conferences	154 – 159
Annex 4.3	Patent Details (Filed/Published/Granted)	160
Annex 4.4	Books /Chapters /Monograph/Case Study authored by faculty members	161 – 162
Annex 4.5	Seminar/ Conference/ Workshop Organized	163 – 169
Annex 4.6	Expert Talks / Guest Lecture Organized	170 – 172
Annex 4.7	Consultancy	173
Annex 4.8	Externally Funded Research Projects	174
Annex 4.9	Interdepartmental & Interdisciplinary Research	175 – 188
Annex 5.1	Summer Training	189 – 223
Annex 5.2	Placements	224 – 233
Annex 8.1	Minutes of IQAC Meetings	234 – 239
	Audited Balance Sheet	240 – 246
	Editorial Team	246

“Manav Rachna”

Manav Rachna carries forward the mantle of excellence and professionalism with the philosophy of Manav Rachna.

“Vidyantariksha”

This is a conjunction of the words ‘vidya’ and ‘antariksha’. “Vidya means knowledge, information, the basis of creativity and innovation. It is the foundation of technology and envisages the future. “Antariksha means ‘the sky’ the space which we belong to or exist. It can be broken into ‘antar’ and ‘ikshan’ which means inner vision. Hence the combination, the core promise of Manav Rachna becomes “the reality of inner vision or root of all knowledge”.

CHAPTER 1

ABOUT THE UNIVERSITY

1.1 Executive Summary

Manav Rachna University (MRU) is a leading State Private University established vide Haryana State Legislature Act No 26 of 2014 & Under Section 2(f) of UGC Act 1956 and included in the list of Universities by UGC. The University offering globally relevant education and is also listed on the official website of Government of Haryana. The University has evolved from Manav Rachna College of Engineering (MRCE), which was established in the year 2004, a NAAC accredited 'A' Grade institution. The accreditations/rankings are testimonial to the trust of accrediting bodies in the quality of education being offered, a well-established teaching and learning process guided by the global best practices and a culture of academic excellence promoting research, innovation & entrepreneurship. The University has five faculties and nine Academic Departments. The Programs offered at Faculty of Engineering, Faculty of Law & Faculty of Education and Humanities are approved by the respective regulatory bodies like AICTE, BCI, NCTE & RCI.

University Campus is spread over approximately 10.48 acres with a built-up area of 37487 sq. mtr. The campus, just 15 Km away from south Delhi, provides state-of-the-art facilities and ambience for a conducive learning environment.

Our vision is to educate students in the frontier areas of knowledge enabling them to take up challenges as ethical and responsible global citizens.

MRU has been bestowed with QS I-Gauge overall Gold rating and has been awarded Diamond rating in facilities and student employability for 2018-21. MRU is among the few Institutions in country who have received E LEAD Certification by QS I Gauge for their readiness to deliver online (2020-21)

As per Times Engineering Survey 2020, Manav Rachna University is among the top 2 emerging engineering institutes and is ranked number 1 in research capability & Placements. Also, university has been recognized as valuable Swayam-NPTEL local chapter with rating of 'A'. Innovation Incubation Council (IIC) of MRU established under AICTE- Ministry of Innovation Cell, GOI received 4 Star Rating for the year 2019-20, in the North West Region. University has collaborated with the leading universities and Institutions both at global and national level for delivering the best education to its students. It has strong industry connect for the design and delivery of various courses.

University upgrades its curriculum to keep pace with the latest trends and keeps it recent and relevant. It has incorporated courses like Artificial Intelligence, Machine Learning, Data Analysis, Mechatronics, Robotics, Nanotechnology, Financial management, HR Management to name a few to impart training and prepare its students for leadership positions of tomorrow.

The academics at MRU is designed towards providing the students a strong background in fundamentals, an ability to translate it to real-life problems and a capacity to design, build and analyze different products, processes and systems. Guided by international best practices, the teaching-learning process ensures the development of Global Graduate Attributes as recommended by various professional bodies/societies.

The academic process is outcome based and ensures development of the desired skill set. Choice Based Credit System provides flexibility to the students to take courses from the areas of their interest. Learner Centric Education with latest pedagogical approaches like active learning, collaborative and cooperative learning, agile methodology ensures holistic development of graduates who understand the impact of their actions/ decisions on the society and environment.

University envisions developing Sustainable Development as a thrust area of Research and Innovation. The research training provided to our graduate students creates the next generation of leaders well-prepared to advance knowledge and transfer of technology. Several Live Projects are being given by Industry to the UG students to work on and come out with innovative solutions. Any new Knowledge created by the Students and Faculty through their research and innovation is disseminated through publishing of books, research papers in the reputed Journals and filing of Patents. The dedication and hard work of its faculty and students is acknowledged in terms of awards & recognition they receive at different forums. Inculcating entrepreneurial skills is given its due importance and the University has established its incubation centre.

We continually seek feedback from all our stakeholders, analyse it and take action wherever required. We are conscious of the need to adopt various measures for quality assurance and have taken suitable measures in that direction. Transparency in all our operations, emphasis on an honest and sincere approach, has gained us respect and we are the preferred choice of the faculty and students in northern India.

1.2 Statutory Recognition

Manav Rachna University is a State Private University, established vide Haryana State Legislature Act No 26 of 2014 & under section 2(f) of UGC Act 1956. The University has evolved from Manav Rachna College of Engineering (MRCE), a NAAC Accredited 'A' Grade institute.

1.3 Vision

Manav Rachna University envisions to educate students in frontier areas of knowledge enabling them to take up challenges as ethical and responsible global citizens.

1.4 Mission

- To impart outcome based holistic education
- To disseminate education in frontier areas
- To produce globally competitive, ethical and socially responsible human resources
- To produce human resources sensitive to issues of Environment and Sustainable Development
- To develop Environment and Sustainable development as thrust area of research and development.

1.5 Quality Policy

To continuously learn from the best practice, study rolemodels and develop transparent procedures for empowerment of stakeholders.

1.6 OFFICERS OF THE UNIVERSITY



CHANCELLOR

Dr. Prashant Bhalla



VICE CHANCELLOR

Prof. (Dr.) IK Bhat



VICE PRESIDENT, MREI

Dr. Amit Bhalla



REGISTRAR

Dr. Kameshwar Singh



DEAN ACADEMICS

Prof. (Dr.) Sangita Banga



DEAN RESEARCH

Prof. (Dr.) Pradeep Kumar Varshney



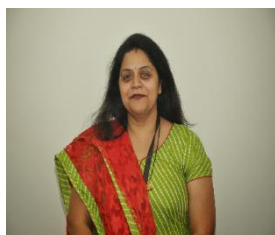
DEAN STUDENTS' WELFARE

Prof. (Dr.) Shruti Vashist



PROCTOR

Prof. (Dr.) D K Sharma



DEPUTY CONTROLLER OF EXAMINATION

Ms. Shefali Chopra

DEANS OF FACULTIES



FACULTY OF ENGINEERING

And FACULTY OF LAW

Prof. (Dr.) Sangita Banga



FACULTY OF APPLIED SCIENCES

Prof. (Dr.) Pradeep Kumar Varshney



FACULTY OF MANAGEMENT & COMMERCE

Prof. (Dr.) Parul Jhajharia



FACULTY OF EDUCATION & HUMANITIES

Prof. (Dr.) Babita Parashar



Director Law

Mr. Ajay Thomas (w.e.f 1st January 2020)

1.7 GOVERNANCE

1.7.1 Governing Body

The Governing body is the highest decision-making authority of the University. All the movable and immovable property of the University vests in it. The Governing Body provides general superintendence and direction to the University and in particular, regulates and controls the functioning of the University in accordance with the provisions of the applicable Acts, Statutes, Ordinances, Rules, Regulations, Notifications and Orders etc. In academic year 2019-20, the Governing Body met three times i.e. on 30th September, 2019, 24th January, 2020 and 28th April, 2020.

Members

- 1) Dr. Prashant Bhalla, Chancellor/Chairman
- 2) Dr. Amit Bhalla, Vice President, MREI
- 3) Prof. I.K. Bhat, Vice Chancellor
- 4) Ms. Anita Chaudhary, IAS (Retd.) Former Secretary, GOI
- 5) Dr. Shalini Tuli, Associate Professor, Govt. College (Govt. Nominee)
- 6) Col. (Retd.) V.K. Gaur, Advisor, MREI
- 7) Dr. M.M. Kathuria, Trustee, UET
- 8) Dr. N.C Wadhwa, DG, MREI
- 9) Prof. Sanjay Srivastava, MD MREI & VC MRIIRS
- 10) Sh. Amit Kumar, FCA
- 11) Dr. Kameshwar Singh, Registrar/Member Secretary

1.7.2. Board of Management

The Board of Management (BoM) is the Chief Executive body of the University and works under the overall directions of the Governing Body. The role of BoM is to establish and monitor the achievement of the University's mission and Objectives. This includes, formulation and monitoring of academic standards, benchmarks and goals; establishment of academic and research units; supervision of the University's finances and budgetary processes; conducting institutional performance evaluations; compliance of the University's statutory and regulatory responsibilities; liaison with external agencies and evaluation of the performance of the senior University functionaries. In academic year 2019-20, the BOM met three times i.e. on 02th August, 2019, 15th January, 2020 and 28th April, 2020.

Members

- 1) Prof. I.K. Bhat, Vice Chancellor
- 2) Dr. Amit Bhalla, Vice President, MREI
- 3) Sh. Rajeev Kapoor, ED & Group HR-Head, Uno Minda

- 4) Dr. Shalini Tuli, Associate Professor -Govt. Nominee
- 5) Mr. Navdeep Chawla, President – FIA
- 6) Dr. M.M. Kathuria, Trustee, UET
- 7) Prof. Sangita Banga, Dean Academics
- 8) Prof. Parul Jhajharia, Dean-Faculty of Management and Commerce
- 9) Prof. Joshe P. Verghese, Professor Emeritus
- 10) Prof. Versha Vahini, HoD- Law
- 11) Dr. Babita Parashar, Dean – Faculty of Education & Humanities
- 12) Ms. Hanu Bhardwaj, HoD-Computer Science and Technology
- 13) Dr. Kameshwar Singh, Registrar / Member Secretary

1.7.3 Academic Council

The Academic Council is the principal academic body of the University. It exercises general supervision over the academic policies of the University, subject to the provisions of the Act, Statutes, Ordinances of the University, The Academic Council is responsible for evaluation and approval of overall educational policy, academic degree programs, requirements for admission, academic honors and awards etc. at the University. In academic Year 2019-20 the Academic Council met three times i.e on 23rd August, 2019, 9th December, 2019 and 21st April, 2020.

Members

- 1) Prof. I.K. Bhatt, Vice Chancellor-Chairman
- 2) Prof. Raj Senani, Professor Emeritus, Netaji Subhash University of Technology
- 3) Prof. Anita Rastogi, Professor JMI, Delhi
- 4) Prof. Pilli Emmanuel, Associate Professor MNIT, Jaipur
- 5) Prof. Kanupriya Sachdeva, Professor MNIT, Jaipur
- 6) Prof. Devender Kumar, Professor Delhi Technological University, Delhi
- 7) Prof. G.S. Bajpayee, Professor & Registrar, NLU, Delhi
- 8) Sh. Ajay Kabra, Sr. Director – Agile Transformation Xebia India
- 9) Sh. Pradeep Kumar, Head Channels Sales, Altair Engineering
- 10) Dr. S.K. Goyal, Executive Director (SAARC)
- 11) Prof. (Dr.) S.K. Garg, Pro-VC, Delhi Technical University,
- 12) Prof. (Dr.) R.K. Singh, School of Economic, New Delhi
- 13) Prof. Sangita Banga, Dean Academics
- 14) Prof. Parul Jhajharia, Dean-Management and Commerce
- 15) Prof. Pardeep Kumar Varshney, Dean, Research & Applied Science
- 16) Dr. Babita Parashar, Dean-Faculty of Education and Humanities

- 17) Prof. Versha Vahini, HoD, Law
- 18) Prof. Shruti Vashisht, HoD-ECE & Dean, Students welfare
- 19) Ms. Hanu Bhardwaj, HoD, Computer Science Technology
- 20) Prof. Sujata Nayak, HoD, Mechanical Engineering
- 21) Dr. Sudhish Shukla, HoD, Chemistry
- 22) Dr. Rashee Singh, HoD, Education and Humanities
- 23) Dr. Deepa Arora, HoD, Mathematics
- 24) Dr. Jai Prakash, HoD-Physics
- 25) Prof. D.K. Sharma, Professor, Physics
- 26) Prof. Susmita Ray, Professor, Computer Science and Engineering
- 27) Dr. Pragati Chauhan, HoD, Management and Commerce
- 28) Ms. Meena Kapahi, Associate Professor, Chemistry
- 29) Dr. Jyoti Pruthi, Associate Professor, CSE
- 30) Dr. Kameshwar Singh, Registrar /Member-Secretary

1.7.4. Finance Committee

The Finance Committee is the principal financial body of the University. The main task of the Committee is to take care of the financial matters of the University. In academic year 2019-20, the Finance Committee met thrice i.e. on 30th September, 2019, 24th January, 2020 and 28th April, 2020.

Members

- 1) Prof (Dr.) I.K Bhat, Vice chancellor
- 2) Dr. Amit Bhalla, Vice President, MREI
- 3) Dr. M.M. Kathuria, Trustee, UET
- 4) Prof. Sangita Banga & Dean Academics
- 5) Sh. Amit Kumar, FCA
- 6) Dr. Kameshwar Singh, Registrar
- 7) Sh. Rajeev Malhotra, Chief Finance & Accounts Officer, Member Secretary

1.8. Advisory Boards

1.8.1 Advisory Board of Faculty of Law

The Advisory Board is constituted to advise, guide, supervise and steer the holistic growth of faculty of law so as to take it to the greater heights. In the academic year 2017-18, the Advisory met three times i.e. on 07th September, 2019, 18th January, 2020 and 1st May, 2020.

Members

- 1) Hon'ble Mr. Justice R.C. Lahoti (Former CJI) Chairman
- 2) Hon'ble Mr. Justice Amitava Roy, Former Judge, SCI
- 3) Hon'ble Mr. Justice K.K. Lahoti (Former Acting Chief Justice, "H" High Court-MP)
- 4) Hon'ble Mr. Justice Kailash Gambhir (Former Judge, Hon'ble High Court of Delhi)
- 5) Hon'ble Mr. Justice Rajiv Bhalla (Former Judge, Hon'ble High Court of P&H)
- 6) Mr. Atmaram Nadkarni, (ASG, Government of India)
- 7) Mr. P. K. Malhotra, Former Law Secy., GOI
- 8) Mr. Arvind P. Datar, (Senior Counsel) Member
- 9) Mr. Ravindra Srivastav (Senior Counsel) Member
- 10) Mr. Parag Tripathi (Senior Counsel) Member
- 11) Mr. Gourab Banerji (Senior Counsel) Member
- 12) Mr. Sanjeev Sharma (Senior Counsel) Member
- 13) Mr. Gopal Jain (Senior Counsel) Member
- 14) Mr. Ashok Gupta (Senior Counsel) Member
- 15) Mr. Vinay Bhasin (Senior Counsel) Member
- 16) Mr. Jasbir Singh Bajaj (IAS) Member
- 17) Mr. R. K. Bajaj, Former Chief Commissioner – IT Member
- 18) Mr. Sudhir Sharma (Partner, Luthra & Luthra) Member
- 19) Mr. Anup Trehan (Partner, Access Law) Member
- 20) Mr. Shashank Garg (Partner, Advani & Co.) Convener



1.8.2 Advisory Board of Manav Rachna Centre for Peace & Sustainability

The Advisory Board is constituted to advise, guide, supervise and steer the holistic growth of the Centre so as to take it to the greater heights. In the academic year 2019-20, the Advisory met once on 28th Feb, 2020.

Members

- 1) Dr. Karan Singh (Indian politician, philanthropist and poet), Chairman
- 2) Dr. Prashant Bhalla, Chancellor
- 3) Dr. Amit Bhalla, Vice President, MREI
- 4) Hon'ble Mr. Justice R.C. Lahoti (Former CJI)
- 5) Swami Gyananandji, Spiritual Guru, GIEO, Gita & Shri Krishan Kripa Sewa Samiti
- 6) Dr. Ved Prakash, Former Chairman, University Grant Commission
- 7) Dr. Muzaffer Ahmad, Former Director General health Govt of J&K
- 8) Dr. Rajendra Shende, Chairman Terre Policy Centre
- 9) Dr. Meenakshee Gopinathan, Indian educationist, political scientist, writer
- 10) Dr. Anand Prakash, Professor & Head, Department of Psychology, Delhi University
- 11) Mr. Vishesh Gupta, Chairperson and Board of Directors of Bharat Soka Gakkai (BSG)
- 12) Dr. Jyotsna Singh, Director, Dara Shikoh Centre, J & K. Amar Mahal Museum & Library, J & K
- 13) Dr. Sushila Bhan, Chairperson, Institute for Peace Research & Action
- 14) Lt. Gen S. P. Kochhar, Retired Signal Officer in Chief- Indian Army
- 15) Mr. Anuj Sinha, Chairman of the Board at Network of Organisations for S&T Communication
- 16) Prof. Sanjay Srivastava, MD MREI & VC MRIIRS
- 17) Prof (Dr.) I.K Bhat, Vice chancellor
- 18) Dr. Geeta Thakur (Member Secretary)



1.9 Other Committees of the University

A well-organized University set up requires a lot to be monitored for smooth functioning and overall excellence such as attendance, feedback, course uploading to name only a few in this regard. Managing this entire gamut is not a one man show but it requires a collaborative effort from all staff members. University therefore works in a more decentralized manner through its various committees. These committees are empowered, have more autonomy and thus, help in quick decision making. All the committees are headed by coordinators with defined roles and responsibilities to perform.

OTHER COMMITTEES		
Committee Name	Coordinator & Team Members	Roles and Responsibility
Board of Discipline	Sh. Ajit Katiyar, Associate Professor – Chairman	To consider the matter concerning maintenance of discipline among the students in the University
	HoD concerned and Hostel warden to which act of indiscipline pertain – Member	To enquire into the act of indiscipline or misconduct committed by a student(s) whenever such cases are referred to the Board of Discipline and to submit their findings, conclusions, and recommendations for the quantum of punishment under the provision of this ordinance.
	Dr. Somdutt Bhardwaj, Associate Professor – Member	To supervise and monitor the discipline ecosystem prevailing in the University
	Ms. Manpreet Kaur, Associate Professor – Member	To maintain liaison with the police authorities and concerned departments of the Government, neighboring institutions and the authorities of the University regarding maintenance of law and order in the University.
	Ms. Meenakshi Gupta, Assistant Professor – Member	To organize counseling session and liaisoning with parents of the guardians of the students.

	Dr. Shobha Srivastava, Deputy Registrar-Administrator – Member Secretary	To perform such other functions as may be assigned to it by the Vice Chancellor from time to time.
	Mr. A.K. Mishra, Sports Office and Manager Operations	
Annual Report	Prof. Sangita Banga, Dean Academics – Chairperson	The committee shall function under overall supervision and patronage of the Dean Academics and will be required to submit the Draft Annual Report within two months' time.
	Dr. Babita Parashar, Dean Faculty of Education & Humanities – Convenor	
	Prof. Shruti Vashisht, Dean - DSW – Member	
	Dr. Megha Mittal, Associate Professor – Member	
	Prof. Versha Vahini, HoD-Law – Member	
	Prof. Geeta Thakur, Prof. Education & Head-ASLI	
	Ms. Yogita Guputa, Asst. Professor – Member	
	Ms. Gaganjot Kaur, Asst. Professor – Member	
University Level Greivance Redressal Committee	Prof. Shruti Vashisht - Chairperson	Create and communicate a detailed policy.
	Prof. A.K. Gupta, - Member	Ensure awareness and orientation on the sexual harassment at work place
	Prof. Versha Vahini, - Member	Ensure complaint committee is trained in both skill and capacity.
	Ms. Hanu Bhardwaj, Associate Professor – Member	Prepare an annual report and report to the Vice Chancellor
	Mr. Sandeep Kumar, Associate Professor – Member	
	Dr. Archana Bhatia, Chairperson, Nari Uthan Shikshan Shashaktikaran – Member	

Grace Marks Committee	Dean Academics – Chairperson	The committee shall function under overall supervision and patronage of the Dean Academics
	Dean Student Welfare – Member	
	Controller of Examination – Member	
	Dean Management – Member	
	Registrar - Member Secretary	
Committee for Documents / Reports and processes for updation of data	Ms. Meena Kapahi, Associate Professor-Chemistry – Coordinator	Team Assist to Dean Academics in Processing of Academic Documents / Reports as well as in developing system and processes for updation of data
	Dr. Deepa Arora, Associate Professor & Head Maths - Co-Coordinator	
	Dr. Roopa Rani, Asst. Professor-Chemistry – Member	
	Dr. Ananna Bardhan, Asst. Professor-Physics – Member	
	Dr. Manpreet Kaur, Associate Professor-CST – Member	
	Dr. Seema Sharma, Asst. Professor - Faculty of Education & Humanities – Member	
	Ms. Priyanka Maderna, Asst. Professor-law – Member	
	Dr. Pooja Kapoor, Associate Professor-Management – Member	
	Dr. Ankita Pandey, Asst. Professor-Maths – Member	
	Mr. Bhanu, Asst. Professor-ECE – Member	
	Mr. Gianender, Asst. Professor-ME – Member	
Mr. Ram Chatterjee, Asst. Professor-CST – Member		
Website Committee	Dr. Mrinal Pandey, Associate Professor-CST - Coordinator	The Website Coordinator Will:
	Ms. Garima Grover, Asst. Professor-ECE – Member	(1) Finalize Website Activity Calendar. (2) Managing Content (3) Maintaining Web Design (4) Maintaining continuity of themes, layout (5) Streamlining navigation (6) Updating contents (7) Ask from

	Ms. Gaganjot Kaur, Asst. Professor-CST – Member	the Dean's HoD's for their respective areas contents and events information (8) Communicate with the Web Team to keep apprised of developments (9) Coordinating with the team members reviewing website contents time to time to match with the updations in the university information database (11) Give consolidated feedback to Dean's and HoD's
	Mr. Mandeep Bhadana, Asst. Professor-ME – Member	The Website Team Members will:
	Ms. Rashi Banerji, Assistant Professor, Member	
	Dr. Kiran Gupta, Associate Professor-Faculty of Education & Humanities – Member	(1) Reviewing the specific portions of website for its contents accuracy (2) To be responsible for providing the data specific to the particular area and the formats in which it should be updated on the website (3) Participate in managing the contents and deciding the layout of the website (4) Participate in content writing for specific areas (5) Participate in website meetings (6) Participate in coordinating and communicating with other departments in fetching the information and data.
	Dr. Ankita Pandey, Asst. Professor-Maths – Member	
	Dr. Jaya Tuteja, Asst. Professor-Chemistry – Member	
Purchase Committee	Dr. Shobha Srivastava, Deputy Registrar (Admin) – Chairman	(1)To collect and analyze quotations from the Vendors (2)To complete documentation work relating to purchase (3) Ensure transparency and fairness in the procurement (4) Placing the order to vendor for supply of the stores (5) To get the entry of the stores in the Stock Register of the University
	Ms. Shefali Chopra, Deputy Registrar (R & S) – Member	
	Mr. Bharat Bhushan, (Admin) – Member	

Security Lapses & Losses Committee	Prof. Versha Vahini, Professor – Chairperson	
	Mr. Satish Arora, CVO – Member	
	Dr. Vikram Sharma, Library – Member	
	Mr. A.K. Mishra, Sports Officer – Member	
	Dr. Shobha Srivastava, Deputy Registrar - Member Secretary	
Women Cell	Prof. Shruti Vashisht – Chairperson	<p>(1) The complaint committee shall look into all the cases relating to sexual harassment of students/employees working in the University, investigate the same as per procedure laid down in the act and rules made therein and make recommendations to the competent authority for decision.</p> <p>(2) The complaint committee shall ensure complete confidentiality and shall not disclose the contents of the complaint, identity and address of complainant, respondent and witness and information pertaining to conciliatory/ inquiry proceedings or recommendations of the committee into the complaint to anyone as it is totally prohibited under the provisions of the said act.</p>
	Prof. Sujata Nayak, HoD-Mechanical – Member	
	Dr. Babita Parashar, Dean Faculty of Education & Humanities – Member	
	Dr. Parneeta Dhallwal, Associate Professor – Member	
	Dr. Megha Mittal, Associate Professor - Member	
	Ms. Priyanka Maderna, Asst. Professor-law – Member	
	Dr. Manpreet Kaur, Associate Professor-CST – Member	
	Dr. Deepa Arora, Associate Professor & Head Maths – Member	

CHAPTER: 2

ACADEMICS AT MANAV RACHNA UNIVERSITY

Manav Rachna University, evolved in the year 2014 under the Haryana State Legislature Act No. 26 of 2014 from erstwhile Manav Rachna College of Engineering (MRCE), is flourishing with the gradual passage of time. During the last four years, University has been abuzz with activities and has surged forward in every respect. University has strengthened its academic profile by introducing contemporary, innovative and need-based programs both at UG and PG level. In particular, University introduced inter-disciplinary courses in engineering, applied sciences and integrated programs in Education, law and humanities, to name but few.

All the Engineering Programs offered under the Faculty of Engineering, are approved by AICTE. Manav Rachna University is bestowed with QS I-Gauge Gold rating. QS I-Gauge has certified Manav Rachna University as a globally recognized and benchmarked higher education institution offering online education in appreciation of the digital shift and readiness level of the University towards online education during the global pandemic Manav Rachna University is among the Top 3 emerging Engineering Institutes of the country as per Times Engineering Institutes Survey 2020. It is also the top most promising and emerging institute for Placement and Research Capability.

The University is declared as Nodal Centre for Virtual Labs, in association with IIT, Delhi and is a local chapter of NPTEL. Faculty of Law, MRU, offers Law Programs approved and recognized by BCI. The Faculty of Law at Manav Rachna University is delighted to be a Foundation Member of the LSAC Global Law Alliance – a group of colleges and universities that provide the highest quality legal education to India's future lawyers.. All the programmes offeren under Faculty of Education are NCTE approved.

2.1 Faculties of the University

- 2.1.1. Faculty of Applied Sciences
- 2.1.2. Faculty of Engineering
- 2.1.3. Faculty of Management and Commerce
- 2.1.4. Faculty of Education and Humanities
- 2.1.5. Faculty of Law

Under the five Faculties, there exist different departments offering Undergraduate; Post Graduate and Doctoral Programs.

2.1.1 Faculty of Applied Sciences: Departments, Programs offered, their future plans and faculty members are listed as under:

- **Department of Chemistry:**
 - ✓ B.Sc. (Hons.) (3 year): Chemistry
 - ✓ M.Sc. (2 year): Chemistry
 - ✓ Ph. D.

- **Department of Mathematics**
 - ✓ B.Sc. (Hons.) (3 year): Mathematics
 - ✓ M.Sc. (2 year): Mathematics
 - ✓ Ph. D.

- **Department of Physics.**
 - ✓ B.Sc. (Hons.) (3 year): Physics
 - ✓ M.Sc. (2 year): Physics
 - ✓ Ph. D.

2.1.2. Faculty of Engineering: Various Departments, Programs offered by them, their future plans and faculty members are listed as under:

- **Department of Computer Science and Technology**
 - ✓ B. Tech. (4 year) / B. Tech. Lateral Entry (3 year) Computer Science & Engineering
 - ✓ B. Tech. (4 year) with Specialization in Data Science and Machine Learning.
 - ✓ B. Tech. (4 year) with Specialization in Digital transformation Engineering in association with Xebia
 - ✓ M. Tech. (2 year) Computer Engineering
 - ✓ Ph. D.

- **Department of Electronics and Communication Engineering**
 - ✓ B. Tech. Lateral Entry (3 year): Electronics & Computer Engineering
 - ✓ B. Tech. (4 year): Electronics & Computer Engineering
 - ✓ B. Tech. (4 year) Electronics & Computer Engineering (with Specialization in VLSI and Design Technology)
 - ✓ B. Tech. (4 years) Electronics & Computer Engineering (with specialization in Health Technology)
 - ✓ Ph. D

- **Department of Mechanical Engineering**
 - ✓ B. Tech. (4year) Mechanical Engineering with specialization in Smart Manufacturing and Automation
 - ✓ B. Tech. Lateral Entry (3 year): Mechanical Engineering
 - ✓ M. Tech. (2 year): Mechanical Engineering
 - ✓ Ph. D

2.1.3. Faculty of Management and Humanities: Programmes offered by Department of Management & Commerce are mentioned below:

➤ **Department of Management and Commerce offering Undergraduate programmes (3 year):**

- ✓ Bachelor of Business Administration (BBA- Finance & Accounts) integrated with CMA Program, USA and endorsed by Institute of Management Accountants, USA.
- ✓ Bachelor of Business Administration (BBA- Entrepreneurship & Family Business.
- ✓ Bachelor of Business Administration (BBA- Health Care Management) in association with Cygnus Hospitals, India.
- ✓ Bachelor of Business Administration (BBA-Operations Management with Specialization in Supply Chain Management, Logistics & Projects Management).
- ✓ Ph.D.

2.1.4. Faculty of Education: Department under the Faculty and Programs are:

➤ **Department of Education and Humanities**

- ✓ Integrated B.Sc. B. Ed. (4 year)
- ✓ Integrated B.A. B. Ed. (4 year)
- ✓ B.Ed. (2 year)
- ✓ B.Ed. Special Education (2 year)
- ✓ Ph. D.

2.1.5. Faculty of Law: Department under the Faculty of Law offers following Programs:

➤ **Department of Law**

- ✓ B.A. LLB (Hons.) (5 year)
- ✓ B.B.A. LLB (Hons.) (5 year)
- ✓ B.Com. LLB (Hons.) (5 year)
- ✓ LL.M (1 year)
- ✓ LL.M (2 year) Pt. Time
- ✓ Ph.D.

2.2 Doctoral Program:

Manav Rachna University is a multidisciplinary & interdisciplinary research driven University. University invite on-line Applications from the eligible candidates for

admission to Doctoral (Ph.D) Programme as per UGC Minimum Standards and Procedures for Awards of M. Phil/ Ph.D Degree Regulations, 2016 dated 05.05.2016 published in the Gazette of India dated 05/07/2016.

AREAS OF EXPERTISE AVAILABLE IN THE DEPARTMENTS

Substantial research is being undertaken in the various faculties. In an endeavor to carry forward the research impetus, the University offers full time Ph.D. programmes in various Faculties. Broadly, the research activities are going on in the following main areas:

1. Computer Science & Technology:- Artificial Intelligence, Pattern Recognition, Machine Learning, Data Mining, Big Data Analysis, Block chain Technology, Search Engine and Hidden Web, Education Technology, Green Computing, Soft Computing, Genetic Algorithms, Communication Systems & Networks, Network Security, Computational Models & Optimization.

2. Electronics & Communication:- Antenna Design, Affordable healthcare devices, Human machine interaction, Digital filter design, Computer Vision and Image Processing, Digital Hardware Design for Biomedical Instruments, VLSI Design, Power System Analysis, Internet of Things, Embedded System Design, Wireless Communication, Energy Harvesting, Solar Cells.

3. Mechanical Engineering: - Tribology-Thin Film Lubrication (EHL/micro-EHL), Wear Phenomena, Friction and (scuffing) Failure Phenomena, Solar Energy and its Applications, Turbo-machines, Thermal Engineering, Fluid Mechanics

4. Management:- Finance, Management, Accounting Strategy, Marketing, Human Resources, Organizational Behavior, Operations, Supply Chain Management, Banking, Insurance, Green Management, Entrepreneurship, Consulting.

5. Physics:- Electronic Structure Calculations, Simulation of Laser-Plasma acceleration, Photonics: short radiation pulse Generation, Laboratory Astrophysics Simulation, Ionospheric Physics, Nanotechnology, Nanoscience, Multiferroics materials, Spintronics, Organic Solar Cells and Solid State Physics

6. Mathematics:- Algebra, Analysis, Ring Theory, Differential Geometry, Coding Theory, Wavelets, Approximation Theory, Fluid Mechanics, Mathematical Modelling, Operations Research.

7. Chemistry:- Green Chemistry- green synthesis of biofuels, Heterocyclic Compounds, Electrochemical Batteries, Water Detoxification, Corrosion, Heavy Metal Toxicity, Polymer Chemistry, Composites Polymer electrolytes,

Superabsorbent Polymers/Hydrogels, Catalysis, Molecular Modeling, Detoxification by Natural Adsorbents.

8. Education:- Assessment and Evaluation, Educational Psychology, E-learning, School management and administration, Curriculum development, Value Education, Innovative Pedagogies, Research-Based Teacher Education, Peace and Sustainability.

9. Law:- International Arbitration, Corporate Law, Intellectual Property Rights Law, Human Rights, Constitutional Law, Public Law and Policy, Crime and Criminology, Trade Law, Business Law, Competition Law.

No. of seats are dynamically contingent upon the number of available supervisors & other learning resources.

Currently 103 scholars are registered for the doctoral program at MRU under different faculties.

2.1 Teaching Learning Process

Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences. University is agile in terms of designing the curriculum. The curricula designed for various programs in MRU ensure that students are substantially sound, able to apply the concepts in practical circumstances and analyse the outcomes of such practical application. In engineering and sciences programs, lab is the important component of every course. Hands on skills are further augmented by the introduction of workshop courses every semester. Some of the engineering programs are delivered in collaboration with its Industry experts. The curriculum thus designed is latest and able to meet the demand of Industry. Further, the teaching and learning methodologies adopted also supplement and complement the Curriculum. The pedagogies like collaborative learning, cooperative learning, active learning are used for the delivery of classes. University has come up with the concept of Agile Classrooms with the support of Knowledge Partner, Xebia, for the delivery through these approaches. MRU is the first campus in India to have agile classrooms. Agile practices followed in industry have been mapped with respect to the classroom environment. These specially designed classrooms enable students to work in team and faculty to develop a better evaluation technique, improve performance of students both in soft skills and technical skills through continuous monitoring of their progress on the visual boards. Various Agile data visualization techniques are implemented to monitor the progress of the courses & student's performance and address the limitations of traditional pedagogy. These different pedagogies make students work together to accomplish the same goal, improves their communication among peers and develop better skills required by industry.

- Faculty of Law has an Advisory Board which boasts of Former Chief Justice of India, Former Supreme and High Court Judges, ASG, Former Law Secretary to Ministry of Law and Justice, Senior Advocates, IAS officers and other legal luminaries as its eminent members.
- In Every program there is Mandatory industrial training/Internship for student's employability centric courses are offered in curriculum.
- Research has been introduced at UG level for the students, faculty mentors them to write review papers, articles and publish/present their work in conferences & journals.
- Periodic industrial visits visit to research labs, Courts, schools, hospitals are organized to provide enough exposure to students in their related areas. University follows the Choice based credit system; thus every program has provision for open electives, program electives and MOOC courses, with academic credits
- Engineering Exploration is introduced for the first year B.Tech students to work on multidisciplinary projects right from the first year.
- Center of excellence in collaboration with industry gives opportunity to students to get train on the latest technologies and software's
- Students are encouraged to carry out Minor projects, Major projects in industries and are mentored by experts from industry to work on the problem statements given by the industry
- Training is imparted for higher studies and competitive exams– GATE/CAT/GRE/NET/Judiciary
- Tutorial hours in most of the technical courses to improve the problem solving skills
- Special Classes are organised for slow learners
- Mentorship/ Teacher-guardian relationship support students to identify their strength and make right choice of electives and move ahead on their career path.
- Laboratories are equipped with scaled/real models and illustrative charts to enhance understanding
- Innovation &Incubation centre established under MHRD provides an opportunity for the students to learn through experimentation
- University has policy for the promotion of innovation and startups with special provisions as per National policy of Innovation, 2019
- Students are motivated to take up socially relevant project work

- Every department organizes expert lecture/workshop/ Alumni interaction in a semester exposing the students to latest trends in the industry
- Students are sponsored to participate in state level, national and international competitions/conferences/ workshops/ seminars
- Continuous assessment is conducted through weekly quizzes, tests, extemporary, group discussions and assignments. Faculty is encouraged to conduct Open book examinations and evaluate through project based learning.
- Student Feedback, Student Satisfaction Survey & course Exit feedbacks are conducted to resolve the gaps between knowledge delivery and learning.

2.4 Faculty Members of the University

MRU FACULTY LIST			
Sr no	Name of Faculty	Department	Designation
1	Dr. Pradeep K Varshney	Chemistry	Professor & Dean-Research
2	Dr. Sangita Banga	Chemistry	Professor & Dean-Academics
3	Dr. Meena Kapahi	Chemistry	Associate Professor
4	Dr. Megha Bansal	Chemistry	Associate Professor
5	Dr. Sudhish Kumar Shukla	Chemistry	Associate Professor
6	Dr. Arpit Sand	Chemistry	Associate Professor
7	Dr. Priti Gupta	Chemistry	Assistant Professor
8	Dr. Ekta Rawat	Chemistry	Assistant Professor
9	Dr. Roopa Rani	Chemistry	Assistant Professor
10	Dr. Vinayak Vandan Pathak	Chemistry	Assistant Professor
11	Dr. Jaya Tuteja	Chemistry	Assistant Professor
12	Dr. Shilpa Sharma	Chemistry	Assistant Professor
13	Dr. Harsha Devnani	Chemistry	Assistant Professor
14	Dr. Jayamani	Chemistry	Assistant Professor
15	Dr. Deepa Arora	Maths	Associate Professor
16	Seema Aggarwal	Maths	Assistant Professor
17	Dr. Dinesh Tripathi	Maths	Assistant Professor
18	Savita Saini	Maths	Assistant Professor
19	Ramapati Maurya	Maths	Assistant Professor
20	Dr. Aparna Vyas	Maths	Associate Professor
21	Dr. Advin Masih	Maths	Assistant Professor
22	Dr. Ruchi Gupta	Maths	Assistant Professor
23	Dr. Ankita Gaur	Maths	Assistant Professor
24	Dr. Yogendra Kumar Sharma	Maths	Associate Professor
25	Dr. Kalpana Shukla	Maths	Assistant Professor
26	Dr. Kamlesh Kumar	Maths	Assistant Professor
27	Dr. Shiv Kumar Dixit	Physics	Assistant Professor
28	Dr. Jai Prakash	Physics	Associate Professor
29	Dr. Dinesh Kumar Sharma	Physics	Professor
30	Dr. Haider Abbas	Physics	Professor

31	Dr. Deepti Maikhuri	Physics	Assistant Professor
32	Dr. Anshuman Sahai	Physics	Assistant Professor
33	Dr. Ananna Bardhan	Physics	Assistant Professor
34	Aditya Sharma	Physics	Assistant Professor
35	Sandeep Kumar	Physics	Associate Professor
36	Dr. Sachin Lakra	CST	Associate Professor
37	Hanu Bhardwaj	CST	Associate Professor
38	Dr. Jyoti Pruthi	CST	Professor
39	Dr. Prinima	CST	Associate Professor
40	Bharti Jha	CST	Assistant Professor
41	Agha Imran Hussain	CST	Assistant Professor
42	Neelu Chaudhary	CST	Assistant Professor
43	Nikita Taneja	CST	Assistant Professor
44	Mrinal Pandey	CST	Associate Professor
45	Ram Chatterjee	CST	Assistant Professor
46	Deepanshi Gupta	CST	Assistant Professor
47	Sarika	CST	Assistant Professor
48	Priyanka Gupta	CST	Assistant Professor
49	Manoj Kumar	CST	Assistant Professor
50	Urmila Pilania	CST	Assistant Professor
51	Narender	CST	Assistant Professor
52	Meena Chaudhary	CST	Assistant Professor
53	Gunjan Chandwani	CST	Assistant Professor
54	Mamta Arora	CST	Assistant Professor
55	Riya Sapra	CST	Assistant Professor
56	Anup Singh Kushwaha	CST	Assistant Professor
57	Shailja Gupta	CST	Assistant Professor
58	Ankur Kumar Aggarwal	CST	Assistant Professor
59	Gaganjot Kaur	CST	Assistant Professor
60	Manpreet Kaur	CST	Associate Professor
61	Dr. Hardeo Kumar Thakur	CST	Associate Professor
62	Dr. Parneeta Dhaliwal	CST	Associate Professor
63	Dr. Susmita Ray	CST	Professor
64	Anu Priya Sharma	CST	Assistant Professor
65	Shreya Malhotra	CST	Assistant Professor
66	Dr. Sanjay Singh	CST	Associate Professor
67	Dr. Thurai Pandian M	CST	Associate Professor
68	Sanjay Kumar	CST	Assistant Professor
69	Alpana	CST	Assistant Professor
70	Dr. Shruti Vashist	ECE	Professor
71	Meenakshi Gupta	ECE	Assistant Professor
72	Lokesh Bhardwaj	ECE	Assistant Professor
73	Yogita Gupta	ECE	Assistant Professor
74	K.Deepa	ECE	Assistant Professor
75	Nitika	ECE	Assistant Professor
76	Bhanu Pratap Chaudhary	ECE	Assistant Professor

77	Vijay Kumar Gill	ECE	Assistant Professor
78	Niharika Thakur	ECE	Assistant Professor
79	Dr. Charu Pathak	ECE	Associate Professor
80	Jai Prakash Sharma	M.E	Assistant Professor
81	Piyush Mahendru	M.E	Assistant Professor
82	Gianender	M.E	Assistant Professor
83	Nazish Ahmad Shamsi	M.E	Assistant Professor
84	Prashant Bhardwaj	M.E	Assistant Professor
85	Pradeep Kumar Mouria	M.E	Assistant Professor
86	Mandeep Bhadana	M.E	Assistant Professor
87	Sudhir Singh	M.E	Assistant Professor
88	Ajit	M.E	Associate Professor
89	Sanjay Taneja	M.E	Associate Professor
90	Joginder Singh	M.E	Associate Professor
91	Dr. Sujata Nayak	M.E	Professor
92	Pragati Chauhan	Management	Associate Professor
93	Dr. Pooja Kapoor	Management	Associate Professor
94	Dr.Priyanka Srivatava	Management	Assistant Professor
95	Parul Jhajharia	Management	Professor & Dean
96	Rashi Banerji	Management	Assistant Professor
97	Manmeet Nag	Management	Associate Professor
98	Subodh Saluja	Management	Associate Professor
99	Srishti Bathla	Management	Assistant Professor
100	Dr. Sachita Yadav	Management	Associate Professor
101	Dr. Animesh Singh	Management	Associate Professor
102	Dr. Priyanka Singh	Management	Assistant Professor
103	Vandna Bhat	Management	Assistant Professor
104	Dr Babita Sharma	Education	Associate Professor & Dean
105	Dr Shreyasi	Education	Assistant Professor
106	Ridhi Khanna	Education	Assistant Professor
107	Dr. Rashee Singh	Education	Associate Professor
108	Dr Savita Sharma	Education	Assistant Professor
109	Dr. Ritu Sharma	Education	Assistant Professor
110	Dr Janhawi	Education	Assistant Professor
111	Shail Bala Mishra	Education	Assistant Professor
112	Dr. Geeta R. Thakur	Education	Professor & Head Staff College
113	Dr Namrata Jhajharia	Education	Assistant Professor
114	Dr Pooja Teotia	Education	Assistant Professor
115	Sharv Datt Anand	Education	Assistant Professor
116	Chandra Prakash Singh	Education	Assistant Professor
117	Dr. Akhilesh Kumar Dwivedi	Humanities	Assistant Professor
118	Chhavi Kulshrestha	Humanities	Assistant Professor
119	Dr. Versha Vahini	Law	Professor
120	Dr. Tarundeep Kaur	Law	Associate Professor
121	Dr. Kiran Gupta	Law	Assistant Professor
122	Aditi Choudhary	Law	Assistant Professor

123	Priyanka Maderna	Law	Assistant Professor
124	Dr. Somdutt Bhardwaj	Law	Associate Professor
125	Saratendu Kumar Bose	Law	Associate Professor
126	Seema Gupta	Law	Associate Professor
127	Sakshi Bahuguna	Law	Assistant Professor
128	Sanya Yadav	Law	Assistant Professor
129	Amit Kumar	Law	Assistant Professor
130	Ajay Bhatia	Law	Assistant Professor
131	Ashima Saxena	Law	Assistant Professor
132	Pooja Trehan	Law	Assistant Professor
133	Shashi Kant Yadav	Law	Assistant Professor
134	Shobhit Mohan	Law	Assistant Professor
135	Shivam Gaur	Law	Assistant Professor

2.5 Students

2.5.1 Enrolment of Students

Expansion of any institution can be gauged by the number of students enrolled in its programs. The increase in number of enrolment of students, year after year, indicates the popularity of University programmes.

Programme / Branch Name	Total No. of Students
Faculty of Engineering	974
Applied Sciences	136
BBA	245
Law	243
Education	230
Total Students (UG)	1828
Total Students (PG) (M.Tech & M. Sc.)	75
Total Students Ph. D.	106

2.6 Scholarship Policy

In the year 2019-20, a substantial sum of more than one crore, three lakhs was awarded as scholarship. Scholarship policy of University encourages a good number of students every year and kindles the spirit of consistent performance. Elaborative policy details are as follows:

2.6.1 Merit Scholarship:

Aimed at promoting meritorious students, scholarship includes tuition fee waiver and is awarded to the students of UG/ PG Programmes) on the basis of marks/CGPA in

the qualifying examination as per following scale, however the students are required to pay other fees as applicable to the programme concerned.

UG Programmes		
90.00% & above	100%	Tuition Fee waiver
85.00% above but below 90.00%	50%	Tuition Fee waiver
80.00% above but below 85.00%	25%	Tuition Fee waiver
PG Programmes		
80.00% & above	100%	Tuition Fee waiver
75.00% above but below 80.00%	50%	Tuition Fee waiver
70.00% above but below 75.00%	25%	Tuition Fee waiver

2.6.2 Merit cum Means Scholarship

MRU offers Scholarship based on merit cum means, to the candidates admitted under reservation for Haryana Candidates. Scheme shall be applicable to all Undergraduate and Post Graduate Programs. The Scheme is applicable to all students whose parents have annual income up to Rs. 2.80 Lac from all sources. Under the scheme, the students shall be given fee waiver limited to the tuition fee as per the following scale. Candidates are required to pay other fee as applicable to the programme concerned.

- (a) One fifth of the twenty five percent shall be granted full tuition fee concession,
- (b) Two fifth of the twenty five percent shall be granted fifty percent fee concession,
- (c) The balance two fifth of the twenty five percent shall be granted twenty five percent fee concession.

2.6.3 Merit Scholarship to Semester / Branch Toppers

In order to motivate the students for better and sustained academic performance, MRU offers 'Merit Scholarship to Semester/ Branch Toppers' for students bagging 1st, 2nd and 3rd positions in the Odd & Even semester exams (Based on the amalgamated SGPA / CGPA) every year for each programme being run at MRU, as under:

a) First position	25% of Tuition Fee or Rs.25,000/- whichever is less
b) Second Position	15% of Tuition Fee or Rs.15,000/- whichever is less
c)Third Position	10% of Tuition Fee or Rs.10,000/- whichever is less

The following are the guidelines for granting these Merit Scholarships:

- 1) Any programme must have strength of 90 or more in semester exam to qualify for first, second and third position scholarship, otherwise only a solitary topper shall be given a solitary first position scholarship.
- 2) If the strength of a course is 10 or less no scholarship will be awarded for that course.
- 3) A student shall be eligible to benefit for tuition fee waiver only from one source only.

2.6.4 Special Scholarship Awarded

a) **Scholarship to Ph.D. Students:** Faculty members working with MREI for three or more years duration are entitled for a scholarship while they enroll for their career enhancement and join the doctoral program. It is done to promote a culture of research in the organization and honour the association of employ with MREI.

b) **Scholarship to MREI Students:** Students completing their School/UG/PG programs from MREI and enrolling MRU for further studies are also awarded scholarship. With an objective of promoting the trust in the parent organization.

c) **Manav Rachna Student Staff Alumni Welfare Fund:** Since merit cum means scholarships are awarded to Haryana domicile holders with annual income less than 2.8 lac, a provision of relief through scholarships for other needy cases is there under MR Student Staff Alumni Welfare fund.

2.6.5 Scholarship Data

2019-20		
Type of Scholarship	No. of Student	Amount
Tuition Fee Waiver	284	14089250
Merit Cum Means	60	3510750
Manav Rachna Student Staff Alumni Welfare Fund & Others	112	3159267
MREI Student	9	45000
Concession to PhD Students on The Basis of Length of Service	32	590000
	497	21394267

Details of Scholarship from 2014-2019

	MERIT SCHOLARSHIP		MERIT CUM MEANS SCHOLARSHIP		BRANCH TOPPERS		MGT APPROVALS		PHD SCHOLARS		MREI STUDENT		TOTAL	
	NO. OF STUDENTS	AMOUNT	NO. OF STUDENTS	AMOUNT	NO. OF STUDENTS	AMOUNT	NO. OF STUDENTS	AMOUNT	NO. OF STUDENTS	AMOUNT	NO. OF STUDENTS	AMOUNT	NO. OF STUDENTS	AMOUNT
2014							1	52400					1	52400
2015	11	747500	8	287500	7	115000	4	238250	15	210000			45	1598250
2016	61	2425500	9	269500	8	157000	7	241500	9	190000			94	3283500
2017	91	3351875	15	390375	10	154625	16	512150	1	15000	1	5000	134	4429025
2018	84	3573875	26	1120000			47	318492	9	80000	21	105000	187	5197367
2019	284	14089250	60	3510750	0	0	112	3159267	32	590000	9	45000	497	21394267
Total	531	24188000	118	5578125	25	426625	186	4469659	66	1085000	31	155000	957	35902409

CHAPTER: 3

ASSESSMENT AND EVALUATION

University follows a policy of continuous evaluation with the objective of training a student to put in sustained, steadfast and disciplined effort over the entire period of study. The semester evaluation of a course consist of Part A and Part B. Part A comprises the formal evaluation for which student is evaluated through an examination (modes of which may vary such as written exam, open book examination, viva voce etc). Part B comprises the evaluation that is done by the individual instructor based on specific criteria. The weightage of Part A: Part B is 4:1. In case of Part A evaluation, the student is evaluated thrice in a semester and the weightage of this examination is 1:1:2. Thus, unlike the conventional examination system, here the weightage for end semesters examination is 50% whereas 50% of marks are awarded based on evaluation during the semester.

3.1 Calendars (Academic & Examination

ACADEMIC CALENDAR 2019-20 (Odd Semester)									
	Faculty of Engineering, Sciences, Management & Commerce & Education (Except BEd. 3rd Sem.)			Faculty of Law			Faculty of Education B.Ed. 3 rd Semester		
	ACTIVITY	DATE S	DAY	ACTIVITY	DATE S	DAY	ACTIVITY	DATE S	DAY
Com me nce me nt of Se ssi on:	B.Tech. 1st Year	8 th July	Monday				Internship at Schools B Ed 3 rd Semester	8 th July	Monday
	1st Year of all UG Programmes other than B.Tech	10 th July	Wednesd ay	1st Year of all UG Programmes in Law	10 th July	Wedne sday	Internship Assessm ent Phase I	13 th Aug.	Tuesday
	1st Year of all PG Programmes & B.Tech Lateral Entry	15 th July	Monday	1st Year of all PG Programmes	22 nd July	Monda y	Internship Assessm ent Phase II	16 th Sept.	Monday
	All UG & PG Programmes 2nd Year & above	22 nd July	Monday	All UG Programmes 2nd Year & above	29 th July	Monda y	Last day of BEd 3 rd Sem School Internship	25 th Oct.	Friday
	Semester Registration Confirmation	22 nd -26 th July	Monday-Friday	Semester Registration Confirmation	29 nd -2 nd Aug	Monda y-Friday	Final Assessm ent	30 th -31 st Oct.	Monday

	Formative Feedback	19 th -23 rd Aug.	Monday-Friday	Formative Feedback		Monday-Friday	Even Semester Commences for B.Ed. 2 nd Year	11th Nov.	Monday
	1st Attendance Review	23 rd Aug.	Friday	1st Attendance Review	23 rd Aug.	Friday	<p><i>Total Internship Duration: 8th July - 25th October = 16 Weeks</i></p>		
	Test T1	26 th -31 st Aug.	Monday-Saturday	Test T1	26 th -31 st Aug.	Monday-Saturday			
	Parent Teacher Interaction Day 1	7 th Sept.	Saturday	Parent Teacher Interaction Day	7 th Sept.	Saturday			
	Submission of marks on ERP for T1 & PT1	10 th Sept.	Tuesday	Submission of marks on ERP for T1 & PT1	10 th Sept.	Tuesday			
	2nd Attendance Review	27 th Sept.	Friday	2nd Attendance Review	27 th Sept.	Friday			
	Test T2	30 th Sept-5 th Oct.	Monday-Saturday	Test T2	30 th Sept-5 th Oct.	Monday-Saturday			
	Submission of marks on ERP for T2 & PT2	19 th Oct.	Saturday	Submission of marks on ERP for T2 & PT2	19 th Oct.	Saturday			
	Parent Teacher Interaction Day 2	19 th Oct.	Saturday	Parent Teacher Interaction Day 2	19 th Oct.	Saturday			
	Presentations on Electives for Next Semester	21 st -25 th Oct.	Monday-Friday	Presentations on Electives for Next Semester	21 st -25 th Oct.	Monday-Friday			
	Pre Registration for Next Semester & PT3	4 th -8 th Nov.	Monday-Friday	Pre Registration for Next Semester & PT3	4 th -8 th Nov.	Monday-Friday			

	Resessional Exams (T1 & T2) exceptional cases as approved by Dean of Faculty	11 th -16 th Nov.	Monday-Saturday	Resessional Exams (T1 & T2) exceptional cases as approved by Dean of Faculty	11 th -16 th Nov.	Monday-Saturday			
	Summative Feedback	11 th -16 th Nov.	Monday-Saturday	Summative Feedback	11 th -16 th Nov.	Monday-Saturday			
	3 rd Attendance Review & Last Day of Classes	22 nd Nov.	Friday	3 rd Attendance Review & Last Day of Classes	29 th Nov.	Friday			
	Preparatory Leave	23 rd -27 th Nov.	Saturday - Wednesday	Preparatory Leave	30 th Nov. - 3 rd Dec.	Friday - Tuesday			
	Announcement of Detention	25 th Nov.	Monday	Announcement of Detention	2 nd Dec.	Tuesday			
	Issue of Admit Cards from Academic Section	26 th -27 th Nov.	Tuesday-Wednesday	Issue of Admit Cards from Academic Section	2 nd -3 rd Dec.	Wednesday-Thursday			
	Test T3 & PT3	28 th Nov.-2 ⁰ Dec.	Thursday - Tuesday	Test T3	4 th -18 th Dec.	Wednesday - Wednesday			
	Submission of Internal Awards on ERP	30 th Nov.	Saturday	Submission of Internal Awards on ERP	6 th Dec.	Friday			
	Submission of T1, T2 and Internal Awards with Exam Cell	7 th Dec.	Saturday	Submission of T1, T2 and Internal Awards with Exam Cell	11 th Dec.	Wednesday			
	Open House	24 TH Dec.	Tuesday	Open House	24 th Dec.	Tuesday			
	Result Declaration	6 th Jan.	Monday	Result Declaration	6 th Jan.	Monday			

Even Semester Commences	2 nd Jan.'20	Thursday	Even Semester Commences	2 nd Jan. '20	Thursday			
<i>Total Semester Duration 22nd July to 22nd Nov=88 Days</i>	<i>Teaching days=71; T1&T2 =12 Days Preparatory Leave =05 Days; End Semester Exam days=16 Days</i>		<i>Total Semester Duration 29th July to 29th Nov=88 Days</i>	<i>Teaching days=72; T1&T2 =12 Days Preparatory Leave =04 Days; End Semester Exam days=12 Days</i>				

Important Note: It is the Responsibility of Head of the Department to submit all awards (T1, T2, & Internal Assessment) of every subject in Soft as well as Hard duly Certified by Subject Faculty & HoD, with the examination cell as per date mentioned in Academic Calendar.

ACADEMIC CALENDAR 2019-20 (EVEN SEMESTER)- B.TECH 8TH SEMESTER

ACTIVITY	DATES	DAY
Commencement of classes for 8th Sem Crash Course B.Tech CSE & B.Tech ME	9th Dec, 2019	Monday
1st Attendance Review	17th Dec 2019	Tuesday
Test T1	18th Dec, 2019	Wednesday
Formative Feedback	19th Dec, 2019	Thursday
Test T2	27th Dec, 2019	Friday
2nd Attendance Review	30th Dec, 2019	Monday
Summative Feedback	3rd Jan, 2020	Friday
3rd Attendance Review & Last Day of Classes	6th Jan, 2020	Monday
Test T3 + PT3	T3 : 8th & 10th Jan, 2020 PT3 : 13th & 14th Jan, 2020	T3 : Wednesday & Friday PT3 : Monday & Tuesday
Date of start of Project Work	15th Jan, 2020	Wednesday
Open House	1st Feb, 2020	Saturday
1st Project Evaluation	7th March , 2020	Saturday
2nd Project Evaluation	18th April, 2020	Saturday
Final Project Evaluation	30th May, 2020	Saturday
Result Declaration	June, 2020	
Total 8th Semester Duration - 9th Dec, 2019 - 6th Jan, 2020 = 22 Days * All working Saturdays (21st Dec & 4th Jan) would be considered as teaching days.		Teaching Days = 20 Days; T1 & T2 Days = 2 Days; Preparatory Leave = 1 Day; End Semester

	Examination Days=4
No. of Courses offered - 2 Courses, L-3:T-1:P-2	
No. of Weeks – 13	
No. of Contact hrs per course - L-13 * 3 = 36	
T - 13 * 1 = 12	
P- 13 * 2 = 24	
Total Contact Hrs per Course = 78 hrs	
For TWO courses - 156 hrs (available 160 hours 20days*8hours)	

ACADEMIC CALENDAR 2019-20 (EVEN SEMESTER)

ALL PROGRAMMES OTHER THAN (B. Tech, B.Ed.& MSc Chem. (Final Sem.), BBA HCM (IV & VI Sem.)		
ACTIVITY	DATES	DAYS
Semester Commencement	6th January 2020	(Monday)
Semester Registration Confirmation	6 th - 11 th Jan, 2020	Monday-Friday
1st Attendance Review	31st January 2020	(Friday)
Test T1	1st February-7th February 2020	(Saturday-Friday)
Formative Feedback	10th February-14th February 2020	(Monday-Friday)
Parent Teacher Interaction Day (short attendance cases + performance in T1)	15th February 2020	(Saturday)
2nd Attendance Review	13th March 2020	(Friday)
Test T2	16th-21st March 2020	(Monday-Saturday)
Parent Teacher Interaction Day (short attendance cases + performance in T1 &T2)	27th March 2020	(Friday)
3rd Attendance Review	24th April 2020	(Friday)
Resessional Exams (T1 & T2) exceptional cases as approved by Dean of Faculty	18th to 24th April 2020	(Saturday to Friday)
Summative Feedback	27th April to 1st May 2020	(Monday-Friday)
Presentations on Electives for Next Semester	13 th -17 th April 2020	Monday-Friday
Pre-Registration for Next Semester	27th April to 1st May 2020	(Monday-Friday)
Final Attendance Review	27th April 2020	(Monday)
Last Day of Classes		
Announcement of Detention	28th April 2020	(Tuesday)
Issue of Admit Card	28th April 2020 & 29th April 2020	(Tuesday & Wednesday)
Preparatory Leave	28th April 2020 to 30th April 2020	(Tuesday to Thursday)
Submission of Internal Awards on ERP	30th April 2020	Thursday
Submission of T1/T2 and Internal Awards with Exam Cell	30th April 2020	Thursday
Test T3 & PT3	1st May to 12th May 2020	(Friday-Tuesday)

Result Declaration	13th May & 14th May 2020	(Wednesday & Thursday)
Odd Semester Commences for Higher Semesters	21st May, 2020	(Thursday)
Total Semester Duration= 2nd Jan. to 27th April, 2019=83 Days	Teaching Days (including T1 & T2): 80 Days; Examination Days: 10 Days; Preparatory Leaves: 3 Days	

EXAMINATION CALENDAR 2019-20 (ODD SEMESTER)

EXAMINATION (Odd Semester)	CALENDAR	2019-20
ACTIVITY	DATES	DAYS
HOD's to provide the list of course co-ordinators/faculty teaching in the format mailed and departmental examination coordinators along with their cell numbers.	18th July	Thursday
List of examination material to be sent to the Registrar	19th July	Friday
Registrar office to provide roll list of students according to the course registered (MRU).	22nd July	Monday
Send grade card data for printing for May-2019 Examination	5th Aug	Monday
Registrar office to provide current list of Lab assistants and Faculty.	5th Aug	Monday
Downloading of Registration Data from ERP	5th Aug	Monday
Evaluation of Supplementary Answer Scripts to be Completed & Submission of Marks of Supplementary Practical Exams	9th Aug	Friday
Settlement of T3 May-2019 Evaluators Bills	9th Aug	Friday
Display of Date-Sheet of MRU T1 on Notice Board/Website	14th Aug	Wednesday
Spiral Bindings of Question Paper to be Completed	14th Aug	Wednesday
Department Coordinator to provide the list of examination material required for the T1 examination.	17th Aug	Saturday
Question papers for T1 to be typed by course coordinators in the required format in PC's kept in Examination Cell	19th Aug	Monday
Declaration of all Supplementary Examination Results	20th Aug	Tuesday
Finalization of Seating Plan and Attendance Sheet for T1	20th Aug	Tuesday
T1 Examination duties sent by e-mail to the Registrar & HOD's	21st Aug	Wednesday
Submission of Report of T1 to Dean Academics	23rd Aug	Friday

Send mail for list of paper setters for T3	26th Aug.	Monday
Test T1	26th Aug. to 31st Aug.	Monday – Saturday
Receiving of Examination Stationary from Registrar Office/ Central store	2nd Sept.	Monday
Showing of answer scripts of T1 (Take Student's signature)	6th Sept	Friday
Submission of marks on ERP and answer scripts of T1/PT1	10th Sept	Tuesday
HOD's to provide list of External Paper Setters (approved by BOS) with prior consent from them, list of Internal Paper Setters also for T3 MRU examinations and list of paper setters for Supplementary examinations.	16th Sept	Monday
Send grade card data for printing for July-2019 Supplementary Examination	16th Sept	Monday
Finalization of datesheet for MRU T2	17th Sept	Tuesday
Display of Date-Sheet of MRU T2 on Notice Board/ Website	17th Sept	Tuesday
Department Coordinator to provide the list of examination material required for MRU T2.	20th Sept	Friday
Finalization of Seating Plan and Attendance Sheet for MRU T2	24th Sept	Tuesday
Question papers for MRU T2 to be typed by course coordinators in the required format in PC's kept in Examination Cell	24th Sept	Tuesday
MRU T2 Examination duties sent by e-mail to the Registrar & HOD's	24th Sept	Tuesday
Finalization of Paper setters for T3 after approvals	26th Sept	Thursday
Submission of Report of T2 to Dean Academics	27th Sept	Friday
MRU T2 Examination	30th Sept. to 5th Oct.	Monday – Saturday
Showing of answer scripts (Take Student's signature)	11th Oct.	Friday
Send all documents for setting question papers of T3 to all those external paper setters by mail/Courier/Hand Delivery (external and Internal paper setters)	11th Oct.	Friday
Registration forms for Supplementary Examination for previous semesters	14th Oct. to 15th Nov	Monday-Friday
Submission of marks on ERP and answer scripts of T2/PT2	19th Oct	Saturday
Data for Recessional Exams (T1 & T2) exceptional cases from Departments	25th Oct	Friday

Send number of duties required for T3 to HOD's	1st Nov.	Friday
Finalization of Reessionals list of students after approvals	1st Nov.	Friday
PT3	4th Nov. to 8th Nov.	Monday-Friday
Question papers for T3 of MRU to be submitted by paper setters in the required format	5th Nov	Tuesday
Submission of Question Papers for Re-sessional Exams	6th Nov	Wednesday
Display of T3 datesheet on Notice Boards and on Website	6th Nov	Wednesday
Recessional Exams (T1 & T2) exceptional cases as approved by Dean of Faculty	11th to 16th Nov.	Monday-Saturday
Scheduling of T3 to be completed on ERP	11th Nov	Monday
Downloading & Printouts of Admit Cards to be completed	15th Nov	Friday
Finalization of Seating Plan and Attendance sheets for T3	20th Nov	Wednesday
T3 Examination duties sent by e-mail to the Registrar, HOD's, Center Superintendents and Evaluation Centre Incharges	20th Nov	Wednesday
Announcement of Detentions	25th Nov	Monday
Handing over of Admit Card to DR Admin	26th to 27th Nov.	Tuesday-Wednesday
Submission of Report of status of preparation of T3 to Dean Academics	27th Nov	Wednesday
Test T3	28th Nov. to 20th Dec.	Thursday to Friday
Test T3 (Law)	4th Dec. to 18th Dec.	Wednesday to Wednesday
Evaluation Centre Opening for T3	29th Nov.	Friday
Submission of Internal Awards on ERP	30th Nov.	Saturday
Submission of T1, T2 and Internal Awards with Exam Cell	7th Dec.	Saturday
Closing of Evaluation Centre	19th Dec	Thursday
Open House	24th Dec	Tuesday
Compilation of All results	30th Dec	Monday
Result Declaration	6th Jan	Monday
Registration forms for Supplementary Examination for current semesters	7th Jan,2020 to 12th Jan,2020	Tuesday – Sunday
Supplementary Examination	17th Jan,2020 Onwards	Friday

EXAMINATION CALENDAR 2019-20 (EVEN SEMESTER)

EXAMINATION (Even Semester)	CALENDAR	2019-20
ACTIVITY	DATES	DAYS
HOD's to provide the list of course co-ordinators/faculty teaching in the format mailed and departmental examination coordinators along with their cell numbers.	2nd January	Thursday
List of examination material to be sent to the Registrar	3rd January	Friday
Registrar office to provide roll list of students according to the course registered (MRU).	6th January	Monday
Display of Date-Sheet of MRU T1 on Notice Board/Website	21st January	Monday
Registrar office to provide current list of Lab assistants and Faculty.	21st January	Monday
Downloading of Registration Data from ERP	21st January	Monday
Department Coordinator to provide the list of examination material required for the T1 examination.	24th Jan	Friday
Hard & Soft copy of Question papers for T1 to be provided by Departments	24th Jan	Friday
Finalization of Seating Plan and Attendance Sheet for T1	27th Jan	Monday
T1 Examination duties sent by e-mail to the Registrar & HOD's	27th Jan	Monday
Submission of Report of T1 to Dean Academics	31st Jan	Friday
Test T1	1st Feb. to 7th Feb.	Saturday - Friday
Showing of answer scripts of T1 (Take Student's signature)	13th Feb	Thursday
Submission of marks on ERP and answer scripts of T1/PT1	14th Feb	Friday
Evaluation of Supplementary Answer Scripts to be Completed & Submission of Marks of Supplementary Practical Exams	15th Feb	Saturday
Settlement of T3 Dec-2019 Evaluators Bills	15th Feb	Saturday
Send mail for list of paper setters for T3	18th Feb	Tuesday
Spiral Bindings of Question Paper to be Completed	18th Feb	Tuesday
Finalization of datesheet for MRU T2	5th March	Thursday
Declaration of all Supplementary Examination Results	5th March	Thursday
Display of Date-Sheet of MRU T2 on Notice Board/Website	7th March	Saturday
Department Coordinator to provide the list of examination material required for MRU T2.	7th March	Saturday
Hard & Soft copy of Question papers for T2 to be provided by Departments	7th March	Saturday

Send grade card data for printing for Dec-2019 Examination	11th March	Wednesday
MRU T2 Examination duties sent by e-mail to the Registrar & HOD's	11th March	Wednesday
Receiving of Examination Stationary from Registrar Office/ Central store	11th March	Wednesday
Finalization of Seating Plan and Attendance Sheet for MRU T2	11th March	Wednesday
Submission of Report of T2 to Dean Academics	13th March	Friday
MRU T2 Examination	16th March to 21st March	Monday - Saturday
Registration forms for Supplimentary Examination for previous semesters	16th March to 16th April	Monday-Thursday
HOD's to provide list of External Paper Setters (approved by BOS) with prior consent from them, list of Internal Paper Setters also for T3 MRU examinations and list of paper setters for Supplementary examinations.	20th March	Friday
Showing of answer scripts (Take Student's signature)	26th March	Thursday
Submission of marks on ERP and answer scripts of T2/PT2	27th March	Friday
Send grade card data for printing for July-2019 Supplementary Examination	1st April	Wednesday
Finalization of Paper setters for T3 after approvals	1st April	Wednesday
Send all documents for setting question papers of T3 to all those external paper setters by mail/Courier/Hand Delievery (external and Internal paper setters)	5th April	Saturday
Data for Resessional Exams (T1 & T2) exceptional cases from Departments	6th April	Monday
Finalization of Resessionals list of students after approvals	10th April	Friday
Submission of Question Papers for Re-sessional Exams	15th April	Wednesday
Resessional Exams (T1 & T2) exceptional cases as approved by Dean of Faculty	18th April to 24th April	Saturday - Friday
Finalization of datesheet for MRU T3	15th April	Wednesday
Send number of duties required for T3 to HOD's	18th April	Saturday
Question papers for T3 of MRU to be submitted by paper setters in the required format	21st April	Tuesday
Display of T3 datesheet on Notice Boards and on Website	21st April	Tuesday
Scheduling of T3 to be completed on ERP	21st April	Tuesday
Downloading & Printouts of Admit Cards to be completed	24th April	Friday
T3 Examination duties sent by e-mail to the Registrar, HOD's, Center Suprintendents and Evaluation Centre Incharges	27th April	Monday
Finalization of Seating Plan and Attendance sheets for T3	27th April	Monday

Announcement of Detentions	28th April	Tuesday
Handing over of Admit Card to DR Admin	28th April	Tuesday
Distribution of Admit Cards	28th & 29th April	Tuesday & Wednesday
Submission of Report of status of preparation of T3 to Dean Academics	28th April	Tuesday
Submission of Internal Awards on ERP	30th April	Thursday
Test T3/ PT3	1st May to 12th May 2020	Friday to Tuesday
Evaluation Centre Opening for T3	2 nd May	Saturday
Submission of T1, T2 and Internal Awards with Exam Cell	30th April	Thursday
Closing of Evaluation Centre	13 th May	Wednesday
Result Declaration	13 th /14 th May	Wednesday/ Thursday
Registration forms for Supplementary Examination for current semesters	25th June to 1st July	Thursday - Wednesday
Supplementary Examination	10th July	Friday

3.2 Examination Cell

S.NO.	NAME	DESIGNATION
1	DR. SANGITA BANGA	CONTROLLER OF EXAMINATION
2	MS. SHEFALI CHOPRA	DEPUTY REGISTRAR- EXAMINATION
3	MS. LOVLEEN NANGIA	EXAMINATION EXECUTIVE
4	MR. NEERAJ SHARMA	EXAMINATION EXECUTIVE

3.2.1 Committees

Core Team of Faculty Members:

Core team of the following Faculty members to help & coordinate in examination activities of Examination Cell:

- a. Ms. Nitika (Asth. Professor-Department of ECE)
- b. Ms. Deepanshi Gupta (Asth. Professor-Department of CST)
- c. Mr. Pradeep Maurya (Asth. Professor-Department of ME)
- d. Dr. Seema Sharma (Asth. Professor-Department of Education)
- e. Mr. Satender Sharma (Research Associate-Department of Chemistry)

3.2.2 Committee for prevention of Unfair Means:

The Committee for prevention of Unfair Means comprises the following members:

- a. Dr. Parul Jhaharia (HOD, Management- Chairperson)
- b. Dr. A.K.Gupta (Professor, Department of Chemistry- Member)
- c. Mr. Somdutt Bhardwaj (Assoc. Professor, Law- Member)
- d. Ms. Shefali Chopra (Dy. Registrar Examination- Member)

3.2.3 Examination Grievance Committee:

The Committee will deal with grievances received in writing from the students about any examination related matters

- a. Dr. Parul Jhaharia (HOD, Management- Chairperson)
- b. Dr. Shruti Vashist (HOD, ECE- Member)
- c. Dr.A.K.Gupta (Professor, Department of Chemistry- Member)
- d. Ms.Priyanka Maderna (Asth. Professor, Law- Member)
- e. Ms. Shefali Chopra (Dy. Registrar Examination- Member Secretary)

3.2.4 Departmental Coordinators:

- a. Ms. Meenakshi Gupta (Asth. Professor, ECE)
- b. Ms. Deepanshi Gupta (Asth. Professor, CST)
- c. Mr. Manoj Kumar (Asth. Professor, CST)
- d. Mr. Sudhir Singh (Asth. Professor, ME)
- e. Dr. Tarundeep Kaur (Asth. Professor, Law)
- f. Dr. Seema Sharma (Asth. Professor, Education)
- g. Dr. Pragati Chauhan (Assoc. Professor, Management)
- h. Ms. Seema Aggarwal (Asth. Professor, Mathematics)
- i. Dr. Anshuman Sahai (Asth. Professor, Physics)
- j. Dr. Ekta Rawat (Asth. Professor, Chemistry)

3.3. Result Analysis- For Academic Session 2019-20

ODD SEMESTER (JULY-DEC-2019)						
FACULTY	PROGRAM	SEM	TOTAL STRENGTH	NO.OF CANDIDATES APPEARED	TOTAL PASSED	PASS %
FACULTY OF ENGINEERING	B.TECH CSE	VII	194	193	154	79.79
		V	185	185	148	80.00
		III	141	137	85	62.04
		I	177	177	85	48.02
	B.TECH CSE-DSML	III	23	23	22	95.65
		I	30	30	22	73.33

	B.TECH CSE-DTE	III	10	10	8	80.00
		I	23	23	21	91.30
	B.TECH ECE	VII	22	22	16	72.73
		III	4	4	3	75.00
	B.TECH ME	I	12	11	4	36.36
		VII	50	50	34	68.00
		V	42	42	32	76.19
	B.TECH IEM	III	28	28	17	60.71
		I	24	23	10	43.48
	M.TECH ME	V	3	3	3	100.00
	III	4	4	3	75.00	
	I	5	5	5	100.00	
FACULTY OF APPLIED SCIENCES	B.SC CHEM	V	25	25	19	76.00
		III	19	18	15	83.33
		I	16	16	9	56.25
	B.SC MATH	V	19	19	14	73.68
		III	22	22	11	50.00
		I	11	11	6	54.55
	B.SC PHY.	V	8	8	6	75.00
		III	8	8	6	75.00
		I	8	8	7	87.50
	M.Sc CHEM	III	20	20	19	95.00
		I	13	13	11	84.62
	M.Sc MATHS	III	6	6	5	83.33
		I	6	6	3	50.00
	M.SC PHY.	III	6	6	6	100.00
I		5	5	5	100.00	
FACULTY OF MANAGEMENT & COMMERCE	BBA (FAA)	V	66	61	41	67.21
		III	41	41	30	73.17
		I	33	33	18	54.55
	BBA (EFB)	V	10	9	4	44.44
		III	23	23	9	39.13
		I	22	20	6	30.00
	BBA (HCM)	V	9	9	6	66.67
		III	8	6	5	83.33
		I	11	10	4	40.00
	BBA (OM)	III	8	8	3	37.50
I		13	12	6	50.00	
FACULTY OF LAW	B.A. LLB (Hon.)	V	46	45	34	75.56
		III	36	30	9	30.00
		I	56	54	14	25.93
	BBA. LLB (Hon.)	V	31	31	15	48.39
		III	23	18	9	50.00
		I	25	24	6	25.00

	B.Com. LLB(Hon.)	V	5	5	3	60.00
		III	13	13	10	76.92
		I	6	6	1	16.67
	LLM	I	10	10	10	100.00
FACULTY OF EDUCATION	B.Ed	III	67	67	67	100.00
		I	50	50	49	98.00
	B.A B.Ed Integrated	V	11	11	9	81.82
		III	16	16	11	68.75
		I	32	32	18	56.25
	B.ScB.Ed Integrated	V	6	6	6	100.00
		III	18	18	11	61.11
		I	29	29	22	75.86
	EVEN SEMESTER (JAN-JUNE-2020)					
FACULTY	PROGRAM	SEM	TOTAL STRENGTH	NO.OF CANDIDATES APPEARED	TOTAL PASSED	PASS %
FACULTY OF ENGINEERING	B.TECH CSE	VIII	194	192	183	95.31
		VI	184	184	184	100.00
		IV	141	141	131	92.91
		II	176	176	157	89.20
	B.TECH CSE-DSML	IV	23	23	23	100.00
		II	30	30	27	90.00
	B.TECH CSE-DTE	IV	10	10	10	100.00
		II	23	23	21	91.30
	B.TECH ECE	VIII	22	22	22	100.00
		IV	3	3	3	100.00
		II	12	11	11	100.00
	B.TECH ME	VIII	50	50	43	86.00
		VI	42	42	42	100.00
		IV	28	28	27	96.43
		II	24	24	21	87.50
	B.TECH IEM	VI	3	3	3	100.00
M.TECH ME	IV	4	4	4	100.00	
	II	5	5	5	100.00	
FACULTY OF APPLIED SCIENCES	B.SC CHEM	VI	25	25	25	100.00
		IV	19	19	16	84.21
		II	16	15	15	100.00
	B.SC MATH	VI	19	19	19	100.00
		IV	22	22	21	95.45
		II	10	9	9	100.00
	B.SC PHY.	VI	8	8	8	100.00
		IV	8	8	8	100.00
		II	8	8	8	100.00
	M.Sc CHEM	IV	20	20	18	90.00

		II	13	13	13	100.00
	M.Sc MATHS	IV	6	6	6	100.00
		II	6	6	6	100.00
	M.SC PHY.	IV	6	6	6	100.00
		II	5	5	5	100.00
FACULTY OF MANGEMENT & COMMERCE	BBA (FAA)	VI	64	61	61	100.00
		IV	41	41	40	97.56
		II	34	33	31	93.94
	BBA (EFB)	VI	9	9	9	100.00
		IV	23	23	23	100.00
		II	22	20	15	75.00
	BBA (HCM)	VI	9	9	9	100.00
		IV	8	7	6	85.71
		II	11	10	8	80.00
	BBA (OM)	IV	8	7	7	100.00
II		13	10	9	90.00	
FACULTY OF LAW	B.A. LLB (Hon.)	VI	47	45	41	91.11
		IV	36	36	32	88.89
		II	56	52	35	67.31
	BBA. LLB (Hon.)	VI	31	31	30	96.77
		IV	22	22	22	100.00
		II	26	25	17	68.00
	B.Com. LLB(Hon.)	VI	5	5	4	80.00
		IV	13	13	13	100.00
		II	6	5	5	100.00
	LLM	II	10	10	8	80.00
FACULTY OF EDUCATION	B.Ed	IV	67	67	67	100.00
		II	50	49	49	100.00
	B.A B.Ed Integrated	VI	11	11	11	100.00
		IV	16	16	9	56.25
		II	32	31	31	100.00
	B.ScB.Ed Integrated	VI	6	6	6	100.00
		IV	18	18	16	88.89
		II	29	28	15	51.72

3.4 Open House Reports- For Odd Sem. (2019-20)

FACULTY OF LAW

Open House of Department of Law held for all the students on Thursday 26.12.2019 at G Block First Floor to discuss the answer scripts of End Term Examination December 2019. The Number of Students, who had reported, are as follows:

S. No	Class	Semester	Total Number of Student Reported
1	BA LL.B. (H)	V	24
2	BBA LL.B (H) & B.COM LL.B.(H)	V	21
3	BA LL.B. (H)	III	14
4	BBA LL.B (H) & B.COM LL.B.(H)	III	20
5	BA LL.B. (H)	I	20
6	BBA LL.B (H) & B.COM LL.B.(H)	I	13

DEPARTMENT OF CHEMISTRY: REPORT ON OPEN HOUSE FOR DEC- 2019

Department of Chemistry in Manav Rachna University conducted an open house for showing T3 Examination answer scripts to the students on 26th Dec, 2019. The answer scripts were shown to the students to gauge their performance in the end semester examination. Both UG and PG programmes participated in the open house.

- (d) 8/20 students of MSc 3rd semester have seen their answer sheets and no report of any discrepancies were reported.
- (e) 3/13 students of MSc 1st semester have seen their answer sheets and 1 discrepancy was reported.
- (f) 11/25 students of BSc 5th semester have seen their answer sheets and 8 discrepancies were reported.
- (g) 04/19 students of BSc 3rd semester have seen their answer sheets and 2 discrepancies were reported.
- (h) 14/16 students of BSc 1st semester have seen their answer sheets and 2 discrepancies were reported.

DEPARTMENT OF PHYSICS: REPORT ON OPEN HOUSE FOR DECEMBER 2019

Department of Physics, Manav Rachna University, conducted an open house for showing T3 Examination answer scripts to the students on 26th Dec, 2019. The answer scripts were shown to the students to measure their performance in the end semester examination. Students of both UG and PG programmes participated in the open house.

- (i) 4/8 students of BSc 1st semester have seen their answer sheets and 4 discrepancies were reported.

- (j) 01/8 student of BSc 3rd semester has seen his answer sheet and no discrepancy was reported.
- (k) 4/8 students of BSc 5th semester have seen their answer sheets and 1 discrepancy was reported.
- (l) 4/5 students of MSc 1st semester have seen their answer sheets and 1 discrepancy was reported.
- (m) 4/6 students of MSc 3rd semester have seen their answer sheets and no discrepancy was reported.



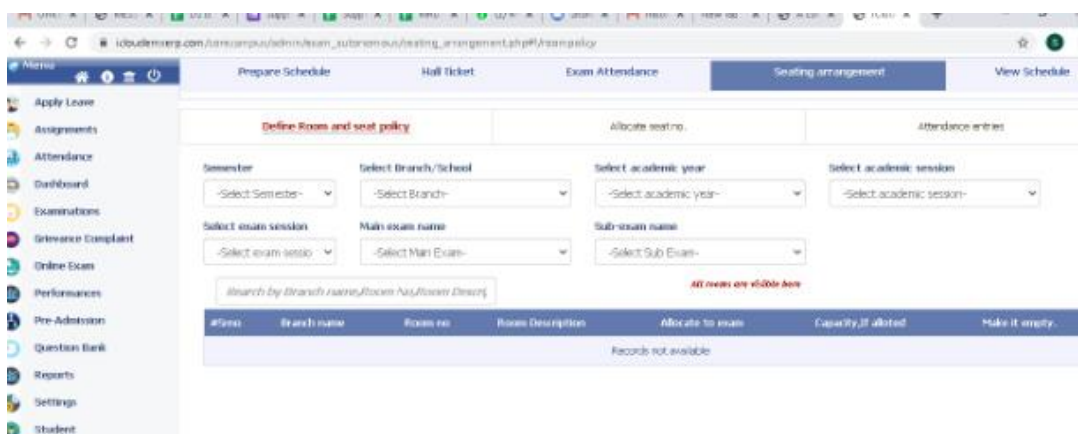
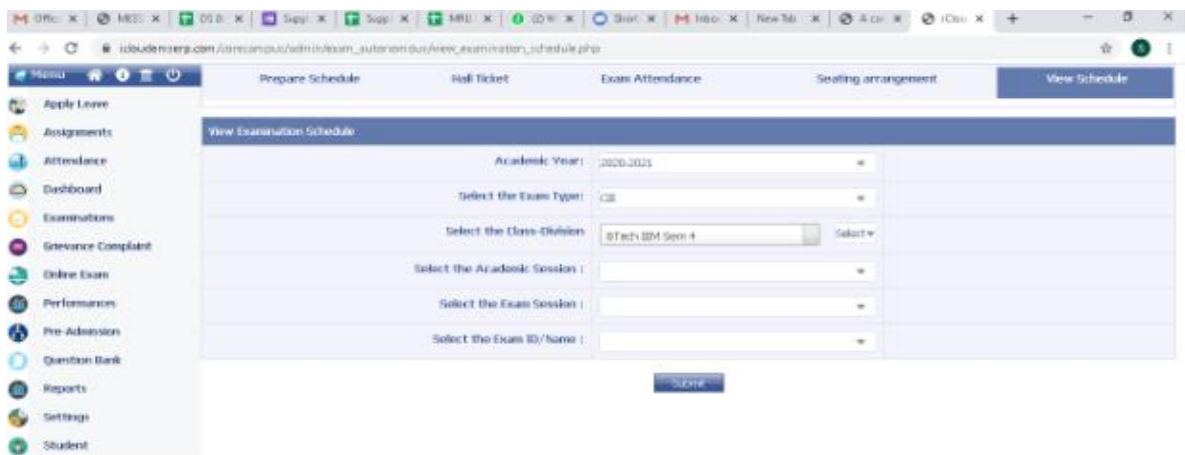
3.5 AUTOMATION OF EXAMINATION ON ERP

ERP / EMS (Education Management System) is a comprehensive software which provides integrated solution to enhance and digitize the processes like Admissions, Fee, Student's academic life cycle, Employee's Profile, Transport, Hostel, Feedback, Grievance, Recruitment & HR processes and other administrative operations in the university through its web & mobile based applications.

Examination Module:

- Parameter wise internal assessment marks is entered by course faculty and the same can be viewed by students.
- Question Paper of Internal assessment tests is created by mapping each question with the Cognitive Level (Bloom's Taxonomy of (Cognitive) Learning Level) and Course Outcome, Question wise marks scored by the student is entered which further helps in measuring the student's attainment level of Course outcome.
- Scheduling of all Exams along with Admit card generation for T3 and Supplementary examinations can be done.
- Attendance and Assignment marks are automatically picked from the respective module and gets converted to Maximum marks of the parameter.
- Students can view marks scored by them in every parameter, thus increasing transparency of their academic performance.

- Students can view their results on ERP and can register for Supplementary Examinations on the portal itself.
- Student/ Staff members can raise Grievance's from the portal and depending upon the nature of grievance, system allocates the issue automatically to the set competent authority at Level I. If the matter is not resolved by the Level I staff, the issue is escalated to the next Level mapped in the system against the same issue for timely solution of the issues.
- There are numerous reports through which record is maintained for all academic activities. To name some reports Exam wise Internal Marks Report, Cut-list for Supplementary Examination etc.



Menu		Jan-Dec - Odd - 13 StachMech Sem 5-A				
Course Code	Course	Course Type	Date	Time	Check Eligibility	
ME4316-T	machine design	PP	2019-11-29	08:30-AM To 12:00-PM	Mark Eligible	
ME4320-T	computer aided manufacturing & computer integrated manufacturing	PP	2019-12-02	08:30-AM To 12:00-PM	Mark Eligible	
ME4319-T	measurement & instrumentation	PP	2019-12-02	09:00-AM To 12:00-PM	Mark Eligible	
ME4321-T	quality engineering	PP	2019-12-02	09:00-AM To 12:00-PM	Mark Eligible	
COO301	professional competency enhancement-II	PP	2019-12-03	09:00-AM To 10:30-AM	Mark Eligible	
ME4317-T	hydraulic machines	PP	2019-12-05	09:00-AM To 12:00-PM	Mark Eligible	
ME4318-T	internal combustion engines	PP	2019-12-09	09:00-AM To 12:00-PM	Mark Eligible	
LWS323-T	cyber law	PP	2019-12-11	09:00-AM To 10:30-AM	Mark Eligible	
LWS321-T	law of patent	PP	2019-12-11	09:00-AM To 10:30-AM	Mark Eligible	
NEW323	design software-II	PR	2019-12-11	12:30-PM To 04:00-PM	Mark Eligible	
NEW322	design software-I	PR	2019-12-11	12:30-PM To 04:00-PM	Mark Eligible	
ME4318-P	internal combustion engines lab	PR	2019-12-12	08:30-AM To 12:00-PM	Mark Eligible	
ME4321-P	quality engineering lab	PR	2019-12-12	12:30-PM To 04:00-PM	Mark Eligible	
ME4320-P	computer aided manufacturing & computer integrated manufacturing lab	PR	2019-12-12	12:30-PM To 04:00-PM	Mark Eligible	
ME4319-P	measurement & instrumentation lab	PR	2019-12-12	12:30-PM To 04:00-PM	Mark Eligible	
ME4317-P	hydraulic machines lab	PR	2019-12-13	08:30-AM To 12:00-PM	Mark Eligible	
ROO303	technical seminar-II	PP	2019-12-16	08:30-AM To 12:00-PM	Mark Eligible	

Print Close

Menu **Reports**

Apply Leave
Assignments
Attendance
Dashboard
Examinations
Grievance Complaint
Online Exam
Performances
Pre-Admission
Question Bank
Reports
Settings
Student

ALL

Search Here

- Barcode Generation
- Exam wise student marks
- Examination Cutlist
- Examination Reports
- Student Attendance Reports
- Students Strength Reports
- Subject Wise Exam Report
- Teaching Plan

CHAPTER: 4

RESEARCH DEVELOPMENT AND INNOVATIONS

4.1 RESEARCH AND PUBLICATIONS

As researchers, we at Manav Rachna are seeking answers to questions of great interest to us. Our research problems are socially and politically relevant, scientific, technical and or interdisciplinary in nature. This knowledge created by research, invariably leads to innovations, new technologies, commercial products and development of startups/industries that have a significant impact on the country's economy. University facilitates research through "Research Clusters" in different disciplines serving as the specialized groups to foster research culture across the university. Further 'Center of Excellence' having collaboration with various industries help in conducting research and development work in the areas such as: Solar Energy Applications, Atmospheric and environmental sciences, Clean Water Technology, Green Chemistry, Corrosion Science, Communication Technology, Integrated System Design, Soft Computing, Business Process Modeling and Data Warehousing. Office of Dean Research promotes and facilitates research within various faculty of MRU by providing necessary support for designing and creating new products and conducting experiments and providing advance training to its faculty members in specialized fields. Through Research Integrated UG Program, students are involved in research activities at undergraduate level and are mentored by faculty members. This partnership between faculty and students culminates in the form of scientific paper or development of prototypes.

Manav Rachna University is actively involved in research and publishes papers in National and International Journals of repute. A list of Publications of MRU (2019-20) in Journals and chapters published in various books are listed. A summary of publications along with highlights is given below:

The Research and publication endeavors of the faculty during the year 2019-20 are summarized below: -

Category	Number	Details
No. of Publication in Journals	70	Annexure 4.1
No. of Publication in Conference	32	Annexure 4.2
No. of Patents	3	Annexure 4.3
No. of Books/Book Chapters	11	Annexure 4.4
Seminar, Conference & Workshop Organised	51	Annexure 4.5
Expert Talk Organised	32	Annexure 4.6
Consultancy	5	Annexure 4.7
Externally Funded Projects	3	Annexure 4.8
Interdisciplinary Research	46	Annexure 4.9

4.2. MAJOR RESEARCH & DEVELOPMENT EVENTS ORGANIZED

- Department of Mathematics organized a two-day workshop on “Scientific Writing using LaTeX”, held on 17 -18 Jan 2020 where faculty members and students had a session for learning tool for research writing.
- Department of Faculty of Education and Humanities organized one week workshop on “Creating Moocs (Massive Online Open Courses)”, held on 7 -11 Dec 2019 where faculty members learned to make content and design MOOC courses.
- Department of Chemistry organized a two-day Conference on “Green Initiative on sustainable chemistry (GSCC-2019)”, held on 7 -8 Nov 2019.
- Department of Mechanical Engineering organized a one-day webinar on “Calculation of Heating and cooling load by using Psychromatic Chart”, held on 25 May 2019.
- Department of Electronics and Communication Engineering organized a one-day workshop on “Logic design using CMOS logic & Familiarization with Tanner EDA tool”, held on 23 May 2020.
- Department of Mechanical Engineering organized a one-day webinar on “UG-NX Mold Wizard”, held on 6 Jun 2020 delivered by Mr. Jeeven Saini & Mr. Ghan Vashishtha Head CoE & Product Development, Blockchain Architect.
- Department of Electronics and Communication Engineering organized an expert talk on “Artificial Intelligence for future”, held on 11 Feb 2020, delivered by Mr.Kushal Tondon, Sr. Data Analyst, Mu Sigma Incorporation", Bangalore.

4.3 RESEARCH ENDEAVORS, INNOVATION & INCUBATION (START-UPS)

MANAV RACHNA UNIVERSITY is committed to vision of our Founder Dr. O.P. Bhalla having dream to boost research, innovation and entrepreneurship activities that can benefit the faculty and students to develop entrepreneurship attitude and aptitude, for enterprise set up. MRU is determined to progress itself into foundation of excellence in education and research in compliance with the contemporary and future needs of India through meaningful education, quality research and technological innovations for the industrial growth of the Country. In addition to offering formal Undergraduate and Post-graduate Programs, it actively encourages its faculty and students to undertake in-house and sponsored research and consultancy projects in order to strengthen the research profile of the Institutions. Presently MRU is actively engaged in research in several areas of Engineering, Manufacturing, Management, Basic and Applied Sciences and Energy, Environment and Law through research and Innovation Clusters and Centre of Excellence. These are providing technology driven support to the students, to help them in incubating

business models as startups or spin offs to become student entrepreneurs for working towards Government of India policy of “Make in India”, “Stand Up India” and “Startup India”.

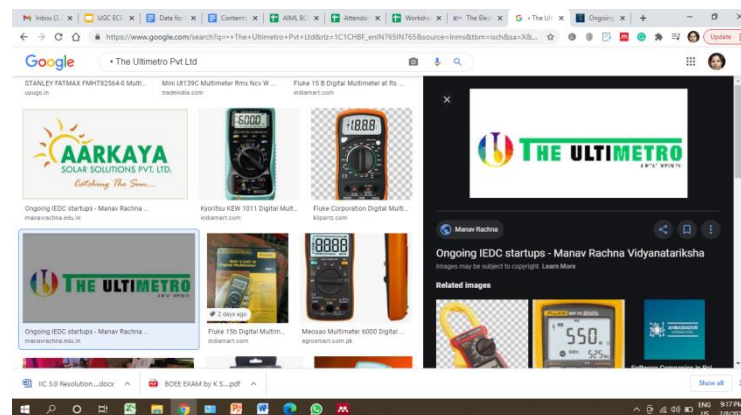
- Kalaversity: Students from ECE, Shivansh is the owner of kalaversity. It is an educational skill development platform started by 2nd year students where focus is to empower youth with multiple skill sets which not only provides them with useful knowledge but also helps them to earn income by implementing it in real time situations and opportunities.



- Aether Technologies: It is a technology consultancy firm which also manufactures and sells its own patent devices like streaksha and D’scent. The services that are taken up by this venture include software, hardware development, product development and may be more started by Shivansh from (ECE).

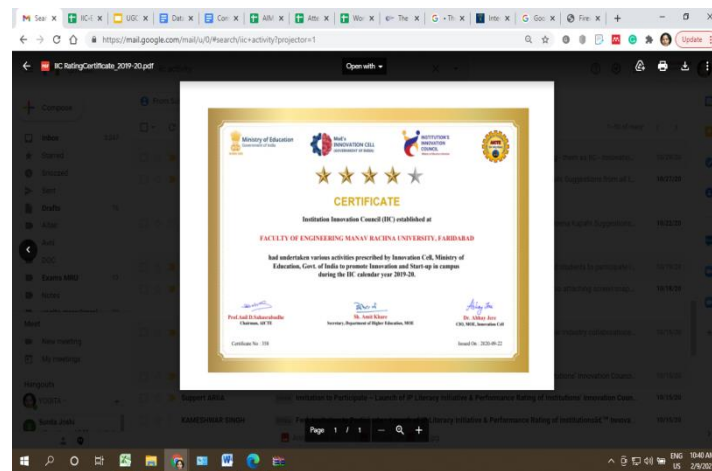


- The Ultimetro Pvt Ltd.: It is a startup by CST department Suraj Kumar (FCA) under the mentorshio of Dr. Parneeta Dhaliwal and supported by NewGen IEDC Manav Rachna with a vision to establish a firm specialized in web/mobile application development.



4.3.1 INNOVATION & INCUBATION CENTER (IIC)

Mission of IIC is “To inspire, build and encourage innovative thinking and development of new products that will create an ecosystem which provides social enterprise knowledge through research and empowering students to implement their entrepreneurship capabilities to design solutions for countries socio-economic development through academia.” Also, providing supportive ecosystem for both student and faculty researchers interested in research and development activities and encouraging innovators and entrepreneurs by assisting in the development of products beneficial for society.



4.3.2 LEADERSHIP TALKS SERIES ATTENDED BY FACULTY & STUDENTS:

- Leadership talks by Prof. Anil D. Sahasrabudhe from Chairman of AICTE on 9/4/2020
- Leadership talks by Dr. Anand Deshpande from Founder, Chairman and Managing Director of Persistent Systems Ltd. on 14/4/2020
- Leadership talks by Prof. K. Vijay Raghavan from Principal Scientific Adviser, Government of India on 8/4/2020
- Leadership talks by Padma Bhushan Dr. V.K. Saraswat from Member Niti Aayog, Ex-Chief Scientific officer with Ministry of Defense on 13/4/2020
- Leadership talks by Ms. Shradha Sharma from Founder and CEO of YourStory on 15/4/2020
- Leadership talks by Dr. Vinay Sahasrabuddhe from President, Indian Council for Cultural Relations (ICCR) on 16/4/2020
- Leadership talks by Mr. Ronnie Screwvala from An Indian entrepreneur and philanthropist, cofounder of UpGrad and founder and CEO of UTV Group on 17/4/2020

- Leadership talks by Dr B.V.R Mohan Reddy from First generation entrepreneur, Ex-Chairman of NASCOM and currently Chairman of Multinational Conglomerate Cyient on 27/4/2020
- Leadership talks by Mr. Abishek Singh from CEO, MyGov on 11/4/2020
- Leadership talks by Mr. Yashraj Bharadwaj from Co-founder of Zenith Vipers, on 20/4/2020.
- Leadership talks by Dr. Madhuri Kanitkar from Lieutenant General on 2/5/2020
- Leadership talks by Prof. D.P. Singh from Chairman UGC on 9/5/2020
- Leadership talks by Mr. Mahesh Babu from CEO, Mahindra Electric Mobility Ltd on 23/5/2020
- Leadership talks by Dr. Nilesh Oak from Expert, Indian Civilization & History on 30/5/2020
- Leadership talks by Ms. Ashwini Deshpande from Co-Founder, and Director, Elephant Design on 6/6/2020
- Leadership talks by Mr. R Subramanyam from Secretary, Department of Social Justice and Empowerment on 13/6/2020
- Leadership talks by Shri Sridhar Venkat from CEO, Akshay Patra Foundation on 20/6/2020.



4.3.3 IIC ONLINE SESSIONS ATTENDED BY FACULTY & STUDENTS:

- Session on National Innovation and Startup Policy (NISP) on 28/4/2020 by Mr. Dipan Sahu Assistant Innovation Director, National Co-coordinator of NISP, IIC and ARIIA.

- Session on Role and Importance of Pre-Incubators, Incubators and Accelerators in HEIs on 29/4/2020 by Mr. Muthu Singaram CEO, IIT Madras, HTIC incubator, Chennai.
- Session on Role and Importance of Pre-Incubators, Incubators and Accelerators in HEIs on 29/4/2020 by Mr. Muthu Singaram CEO, IIT Madras, HTIC incubator, Chennai.
- Session on Hangout with Emerging Innovator & Entrepreneurs Supported through MIC & AICTE on 30/4/2020 by Ms. Vandana Thakur: Female Innovator cum Entrepreneur, Canada India Acceleration Program 2020, PhD Scholar, L M College of Pharmacy, Ahmedabad and Mr. Amit Sanjay Lokhande : Innovator Cum Entrepreneur, India-South Korea Startup Exchange Program 2020, PhD Scholar, Institute of Chemical Technology, Mumbai..
- Session on Role of Network Enablers in driving I&E in HEIs - A Case of TiE, India on 1/5/2020 by Ms. Geetika Dayal Executive Director, TiE Delhi- NCR.
- Session on Product Design and Engineering for Developing a Product, a Start-up's perspective on 4/5/2020 by Dr. Pankaj Parashar Founder & CEO of Cuttingedge Technology Pvt. Ltd., Indore.
- Session on Entrepreneurship, Business Idea, Business Model Canvas on 5/5/2020 by Dr. Sunil Shukla: Director general, EDII, Ahmedabad Dr. Amit Dwivedi: Associate senior faculty, EDII, Ahmedaba, Mr. Mayank Patel: CEO, Cradle, Incubator, EDII, Ahmedabad.
- Session on How to identify Right Problem and Solution Using the Double Diamond Approach in Design on 6/5/2020 by Ms. Prajakta Kulkarni: Founder, Director, Nodes Pvt. Ltd., Pune and Mr. Sanket Inamdar: Co-founder, CEO, Nodes Pvt. Ltd, Pune.
- Session on Intellectual Property (IP) Management at Early Stage of Innovation and Start-ups on 7/5/2020 by Dr Sanjeeva Kumar Majumdar Manager-IPR, StartUp & Incubation, National Research Development Corporation, New Delhi,
- Session on Understand Angel and Venture Capital Funding –What is there for Early-Stage Innovator & Entrepreneurs on 8/5/2020 by Mr. Sushanto Mitra Founder & CEO of Lead Angel Network.
- Session on Legal and Ethical Steps - Productive Entrepreneurship and Startup on 5/12/2020 by Mr. Harit Mohan Founder & CEO of Signicent LLP in India and Signicent LLC in the US.
- Session on Innovating Self-Screen and Identify Right Opportunities on 13/5/2020 by Prof. Sanjay Inamdar Chairman, AICTE Startup Policy Implementation Committee and Entrepreneur.
- Session on Understanding Role and Application of Marketing Research at Idea to Start up Stage - Foundation Level on 14/5/2020 by Dr. Preet Deep Singh AVP, Invest India.

- Session on Innovation Risk Diagnostic — Product Innovation Rubric (PIR) on 15/5/2020 by Dr. Lakshmi Meera Program Director, Forge incubator, Coimbatore.
- Session on Idea, Entrepreneurship Opportunities, Business Model and Business Plan on 19/5/2020 by Dr. Amit Dwivedi: Associate senior faculty, EDII, Ahmedabad & Dr S. R. Acharya: Associate Sr. Faculty, EDII, Ahmedabad.
- Session on Use of Market Data and Application of Marketing Research Tools and Methodology - Increasing Chances of Survivability of Innovation and Venture - Advance Level on 20/5/2020 by Dr. Preet Deep Singh AVP, Invest India.
- Session on Frugal Innovations and Social Entrepreneurship on 21/5/2020 by Dr. Raman Gujral Sr. Faculty, EDII, Ahmedabad.
- Session on Interaction with Student Innovators and Entrepreneurs Emerged from Smart India Hackathon (SIH) on 22/5/2020 by Pulkit Jain of Team Vidyut, Lokesh Goswami of Team SLICK and Arpit Nandi of Team Quarks & Leptons.

4.3.4 PRE-LOCKDOWN EVENTS AT MRU:

- Internal Hackathon for Smart India Hackathon (SIH) 2020 AVISHKAR 2020, organized by IIC, on 28th Jan 2020
- Innovation Contest of MRU in association with FGSi YASH 2020, organized by IIC, from 16th to 18th Jan 2020
- Workshop at MRU Idea Generation Workshop and GitHub Workshop, organized by IIC, on 43862
- Workshop at MRU DAIK IN Workshop, organized by IIC, on 1-Feb-2020 1st Feb 2020
- Workshop at MRU Entrepreneurship Workshop, organized by IIC attended by Mr. Anil Kumar Gupta, a Business Empowerment Coach and Dr. Puneet Malhotra from Centre of Knowledge Management Excellence (CKME).
- Essay Competition & ARDUINO Workshop at MRU Celebration of Innovation Day on 15th October 2019 to mark Dr. A.P.J. Abdul Kalam's Birth Anniversary, organized by IIC, on 26th Sept & 5th Oct 2019.



4.4 IPR CELL

Intellectual property (IP) encompasses the expression of ideas, information, and knowledge. IP includes scientific inventions but also music, literary and other artistic works, trademarks and trade symbols, Geographical indications, and integrated circuit layouts. Intellectual Property Rights (IPR) confer exclusive right over the intellectual property created. The purpose of IPRs is encourage innovation and development. Academic and Research Institutions not only contribute to the creation of IP but also help the researchers, creators, and inventors to protect their IP rights. Manav Rachna I.P.R. Cell is governed by the University Intellectual Property Rights Policy. Details of Patents filed during the period are as under:

- (a) Prateek, Sorabh, Shailesh from Chemistry have filed a patent on Filter cum Stirrer Mechanism for stir casting of composite having filing no./ Patent no: 201911023212 on 6/12/2019.
- (b) Dr. Sabiha Imran from Physics have Filed a patent on Isolation and characterization of broad-spectrum having filing no. /Patent no: 201911023213 on 6/12/2019.
- (c) Gurpreet Singh Matharou, Ritesh Kumar Nagar from Mechanical have Filed a patent on External Handbrake with Mechanical park assist having filing no. /Patent no: 201911023214 on 6/12/2019.
- (d) Shaveta Bhatia, Shiv Shankar Rai from Chemistry have Filed a patent on Handheld Self Examine Brest Cancer having filing no. /Patent no: 201911033647 on 21/8/2019.
- (e) Mr.Shivansh Sharma (Student) from ECE have Filed a patent on Streeksha , D'Scent having filing no./ Patent no: 201911018360 on 6/8/2019.
- (f) Ms. Yogita Khanna from ECE have Filed a patent on Microwave Sensing Device for Dielectric Characterization of Materials having filing no. 201911031072 (TEMP/E-1/32827/2019-DEL) on 1/8/2019.
- (g) Dr.Prem K.Patnala from Chemistry have Filed a patent on Production of Clean Water From Clay Mud Pot Filters having filing no./ Indian Patent no: 201911029396 on 22/7/2019.

4.4.1 IPR ACTIVITIES

IPR Team, Manav Rachna University organized an IP Awareness Session on 'Law of Patents' for the Faculty of Management and Commerce, Faculty of Applied Sciences and Faculty of Education on 10th October 2019, with a view to enhance the awareness about protecting innovative ideas through Intellectual Property. The

speaker of the session was Mr. Amit Kumar, Assistant Professor, Faculty of Law, Manav Rachna University.

- The World IP Day is celebrated every year on 26th April 2020. The objective of World IP Day is to raise awareness about intellectual property rights, to celebrate creativity and contribution made by creators and innovators to the development of societies across the globe and to encourage respect for IP rights. To raise awareness and respect for Intellectual Property among the students and to commemorate the World IP Day IPR cell Manav Rachna University organized a 2D Art competition on the theme “Relive the Creators”. The students enthusiastically participated in the competition by 2D artistic medium such as painting, drawing, mixed media, printmaking, digital art, video art and photography.
- IPR Team, Manav Rachna University organized an IP Awareness Session on ‘Law of Patent’ for the Faculty of Mechanical Engineering and the Faculty of Electronics and Communication Engineering on 31st October 2019 with a view to sensitize all the participants about Intellectual Property Rights and their protection, identifying protectable innovations. The speaker of the session was Mr. Amit Kumar, Assistant Professor at Faculty of Law, Manav Rachna University.
- IPR team, Manav Rachna University organized an expert talk on “Drafting of Patent and Litigation” for faculty members of Manav Rachna University, on 29th February 2020. The guest speaker for the session was Ms. Pragati Khadse, Consulting Director – IP, South Asia, Questel. Ms. Pragati has over 6 years of experience in the field of IP Consulting. She has vast experience of drafting various types of patent applications including provisional, complete, and complete after provisional, defensive, continuation, etc., for various jurisdictions including India, EP and the U.S. She has worked with big firms as Solomon & Co. and Thomson Reuters.
- IPR Team, Manav Rachna University organized an IP Awareness Session on ‘Law of Patent’ for Faculty of Computer Science & Technology on 14th November 2019, to create awareness among the faculty members about the patent system in India and provide user friendly guidelines for obtaining and maintaining patents under the existing Patent laws.

4.5 MANAV RACHNA BUSINESS INCUBATORS

Activities under E-Cell

- Manav Rachna University E- Cell hosted a five-day online celebration of E week started involving participation from students beyond our university and covering around 350 participants across India from colleges like FORE School of Management, Kanpur Institute of Technology, National Institute of Technology Jamshedpur, Tribhuvan University (Nepal), K.J. Somaiya Institute of

Management Studies and Research, Bharati Vidyapeeth's College of Engineering and many more. The events that were planned included Cyrus Against Virus-Ideathon, Tagline competition, MEME Marketing competition, Business Quiz, and Case Study Analysis. The final day of the E-week culminated with an online webinar "ENLIGHTEN- The Paradigm Shift in the key areas of Entrepreneurship" which was taken by Dr. Yogita Sharma an academican, an entrepreneur and a certified trainer with NIESBUD. The student committee of MRU E-cell headed by Mr. Mukesh Das (Student Head) and the entire team did a commendable job from the planning of the events, their marketing across different universities and colleges to the seamless execution of the entire event.

- Vansh, BBA EFB, Abhishek Gupta BBA EFB, Smriti Verma BBA HCM, Yagya Malik, BBA HCM Students participated in a two day Global Youth Conference on Entrepreneurship, Innovation and Venture Development at SGT UNIVERSITY, Gurugram on 19th- 20th FEB 2020. One team of Mr. Vansh Mittal and Mr. Abhishek Gupta (BBA-EFB 2018) secured first position and won "Best Case Analysis Award and a cash prize of Rs 10,000. Another team with Ms. Smriti Verma and Mr. Yagya Malik (BBA-HCM II 2019) secured third pos
- MRU Entrepreneurship Cell organized a session on Idea Pitching and team-building exercise on 3rd and 11th March 2020. The event began with a brief introduction to MRU Entrepreneurship Cell (E-Cell).
- Management students from got an opportunity to learn about the growth story at the Britannia Marie Gold Start up India Contest. This was India's first- ever skill development programme customized for women with entrepreneurial aspirations.
- A one-day workshop on Discovering Entrepreneurial Skills and Competencies was conducted by the Department of Management & Commerce, Manav Rachna University for the BBA (Entrepreneurship & family Business) students.
- MARCH 3,2020-Manav Rachna University students attended the B K Birla Global Innovation Challenge (BGIC 2020) recently at BIMTECH, Noida. Three students from BBA program, Rahul Goyal (Sem II), Smriti Verma (Sem-II), Simran Mehta (Sem VI) and Naman Gupta form CSE (Sem VI) along with Dr Pragati Chauhan, Faculty –Department of Management & Commerce, MRU attended the event

4.6 INNOVATIONS AND COMPETITIONS WON

- Team Error=404 comprising of B.Tech CSE 7th Sem students – Rishabh Dhiman, Mrinmoy Mitra, Aayush Singh, Deepak Bhardwaj, Vishakha Tyagi, and Aman Gupta, of B Tech. Computer Science & Engineering, Manav Rachna University, Faridabad, and along with their mentors Prof Anu Priya Sharma and Prof Ankur Kumar Aggarwal was the proud winner of SMART INDIA HACKATHON 2020 under Software Category. They represented MRU on problem statement of Ministry of Rural Development 'MK206' (Non-network-intensive record-keeping system for Self Help Group) virtually in online mode.

- Students from Department of Management & Commerce Smriti Verma and Yagya Malik (Student) under the mentorship of Dr. Pragati Chauhan won Third Position in “Case Analysis Competition” organized by SGT University on 19-20 February 2020.
- Students of CST department Parul Taneja, Minhajul Hossain, Parikshit Sharma, Ravi Prakash, won Bronze Medal in “HackPhoria” organized by Bennett University. They won First Position in “Case Analysis Competition” organized by SGT University on 19-20 February 2020.
- Students of CST department Parikshit Sharma, Ravi Prakash, Shivam Shukla, Shiv Kumar, won 1st Position in “Hackrcdu, Hackathon” organized by Ramanujan College, University of Delhi.
- Students of CST department Yogesh Dixit, Deepak Bhardwaj, Hitesh Sood, Aman Gupta, bagged Appreciation for project in “Hackrcdu, Hackathon” organized by Ramanujan College, University of Delhi.
- Students of CST department Rishabh Gupta, Gagan Yadav, Sanchit Khandelwal, Ritvik Mukheja, were 4th runner-up for project in “Hackbvicam, Hackathon” organized by Bharati Vidyapeeth's Institute of Computer Applications and Management. The solution *SELFAWARE* was comprised of web-based application.
- Student of CST department Abhishek Sontakke, bagged 9th Position for project in “Singapore India Hackathon 2019” organized by India and Singapore.
- Students of CST department Parul Taneja, Deepak Rana, Mukul Singh, bagged 3rd Position for project in “Vihaan 2.” organized by MHRD Innovation Cell (MIC).
- Students of CST department Mukul Singh, Parul Taneja, Ridhi Sethi, Deepak Rana, Abhishek Pandey, bagged 2nd Position for project in “Technovation” organized by IEEE, DTU.
- Students of CST department Mukul Singh, Parul Taneja, bagged Silver Medal for project in “YASH 2020” organized by Foundation of Global Science Initiatives (FGSI). Bliss Board has been implemented in such a way that any person can type using Braille Script(language). It helps Blind people to connect with Social Life and access various features of their phone manually and by voice too.
- Students of CST department Karan Aditya Ghoshal, Prince Kaliraman, Deepak Rana, bagged Silver Medal for project in “YASH 2020” organized by Foundation of Global Science Initiatives (FGSI).

- Students of ECE & CST department, Ashwani, Yatharth, Shivansh, under mentorship of Ms. Yogita Khanna bagged Silver Medal for project in “YASH 2020” organized by Foundation of Global Science Initiatives (FGSI). Giving blind people the ability to live independently and freely.
- Students of ECE & CST department, Aishvraj Gupta, Ananya Kamara Tushar Sharma under mentorship of Ms. Yogita Khanna bagged Gold Medal for project in “YASH 2020” organized by Foundation of Global Science Initiatives (FGSI) for Portable ECG monitor.
- Students of CST department Ashish Chaudhary, Balbeer Singh, Nilansh Khurana bagged 3rd Position for project PurAire in Anveshan 2020 organized by Association of Indian Universities.
- Students of CST department Deepak, Lizel Mehta, Prince Kaliraman, Karan Aditya Ghoshal bagged 2nd Position for project Hi Jeck-et organized by Sharda University, Noida.
- Students of CST department Parikshit Sharma, Ravi Prakash, Shivam Shukla, Shiv Kumar bagged 2nd Position for project Vacciblock in Hackrcdu, Hackathon organized by Ramanujan College (DU).
- Students of CST department Rishabh Gupta, Gagan Yadav, Sanchit Khandelwal, Ritvik Mukheja bagged 4th Runner-up Position for project Selfaware in Hackbvicam Hackathon organized by Bharati Vidyapeeth's Institute of Computer Applications and Management.
- Students of CST department Nilansh, Balbir, Ashish bagged 1st Position for project Selfaware in Anveshan 2020 organized by Amity University, Manesar, Haryana.
- Students of ME department Mohd Tariq, Dheeraj Malik, Puneet sharma under the mentorship Mr. Pradeep Mauriya bagged 3rd Position for project Selfaware in Anveshan 2020 organized by Amity University, Manesar, Haryana.
- Students of CST department Students under the guidance of Dr. Parneeta (Faculty) won 1st Runner up Position for project Selfaware in Technovation Hackathon 2020 organized by Sharda University, Noida.
- BBA students participated in “CAPRICE”- Global youth Conference on Entrepreneurship, Innovation and Venture development held recently. Team of Mr Vansh Mittal and Mr Abhishek Gupta (BBA-Entrepreneurship and Family

Business- IV Sem) secured the first position and won the “Best Case Analysis Award and a cash prize of Rs 10,000.

- Students of B.Tech. Computer Science & Engineering, Manav Rachna University: Deepak, Lizel Mehta, Prince Kaliraman and Karan Aditya Ghoshal, won Second prize in 24hrs HACKATHON TECHNOVATION at Sharda University. They won the prize under the theme – “Security and Surveillance”, amongst 238 teams across the country.
- Student Team Psycrypters of B.Tech (CSE) of Manav Rachna University comprising Parul Taneja, Minhjul Hossain, Parikshit Sharma and Ravi Prakash, participated in ‘HackPhoria, 24 hrs Hackathon’ on 14 - 16 Feb 2020 and bagged the third position in the same. They were awarded Bronze Medals, Cash Prize of 5000/- and goodies.
- Student of Chemistry department, Kashish Kohli won 1st Position for project in The Scientific Kaliedoscope 2020 organized by Amity University, Noida.
- Student of Chemistry department, Kashish Kohli won 3rd Position for project in Online Youth Festival organized by Amity University, Noida



4.7 RESEARCH COMPUTING CLUSTER

- (a) In March 2020, Bhavya Satija, student of 4th year CST started his own Gaming Tournament Organizing Company by the name KS gaming <http://ksgaming.ultimatefreehost.in/>.
- (b) Research Cluster of Computing Team +impact of B.Tech CSE students of Manav Rachna University, comprising of Parikshit Sharma, Ravi Prakash, Shivam Shukla, and Shiv Kumar, participated in 'HackRcdU', a Hackathon on 27th feb and 28th feb 2020 held at Ramanujan College, University of Delhi and bagged the First Position in the same and received 8000 prize money.

Consultancy Projects Undertaken by Computing Cluster:

- Students team comprising of Prince Kaliraman, Deepak Rana, Karan Aditya and Mukul Singh under the guidance of Dr. Parneeta Dhaliwal have developed a "Panic Button For Doctor's Use", as a consultancy project for Sarvodaya Hospital, Faridabad.
- Students of B.Tech CST, Ravi Prakash , Sanchit Bajaj and Harsh Mittal, successfully developed a static website as a consultancy project for "Delish Homemades, Gurgaon" under the mentorship of Dr. Parneeta Dhaliwal.
- Sourabh Chhabra and Vaibhav Bhatia students of CST, developed the digital content: Website and Video, for in Youth Activities for Superior Humanity – YASH 2020, organized by Foundation for Global Science Initiatives (FGSI) from 16-18th Jan 2020.
- Cyber security team of Research Cluster of Computing participated in various online jeopardy and attack/Defense type CTF competitions under the alias Kaizoku. By August 2020, the team is among top 5% global teams and top 4% among Nationwide. Students who participated include Anmol, Deepak, and Prince.
- A team of students under the mentorship of Dr. Parneeta Dhaliwal, worked as part of the core team for a National Initiative- Samarth Helpline for Elderly against Covid19. The helpline supported by Hindustan Times, SBI, Coca Cola India and Unilever as a social initiative with Samarth Eldercare. It helped 1500 cases so far in 40+ cities across India. The student Team included: Ashwani, Saksham, Harshita, Animesh, Riya, Pranav, Aarzo Kapoor and Siya Sharma.

4.8 RESEARCH INTEGRATED UG PROGRAMS

Manav Rachna has a well-established teaching and learning process guided by the global best practices and a culture of academic excellence promoting research, innovation & entrepreneurship. So, to inculcate the research practices in UG students some courses are incorporated in the curriculum.

The following courses are incorporated in UG programs to enhance research activities:

- Introduction to Research
- Research and Innovation
- Scientific Research
- Research Methodology
- Research Colloquium
- Research Seminar
- Promoting Research Based Teacher Education

Outcome of these courses is in terms of student's participation in conferences and publications in journals. All such student contributions in research are mentioned below:

Students Participation in Conferences & Research Publications

- Himani Saraswat and Surekha Chaudhary, from the Physics department, have attended X-ray absorption spectroscopy summer school workshop, organised by *Stanford synchrotron radiation light source*, 8-10 September 2020.
- Himani Saraswat and Surekha Chaudhary, from Physics department, presented research papers (Oral Presentation Himani Saraswat, Surekha Chaudhary, Himanshu Kasyap and Mansi Tuteja from Physics department have attended Webinar on "X-ray scattering and its applications in Nano & Material science research" organized by Department of Physics, Manav Rachna University, Faridabad, 2nd July 2020.
- Himani Saraswat and Surekha Chaudhary, from Physics department, presented research papers (Oral Presentation) in International Online Conference on Sustainable Research Technology and Development (IOCSRT-2020) on September 24, 2020 and September 25, 2020. Punjab University, Chandigarh-India.
- Himani Saraswat, Surekha Chaudhary, Himanshu Kasyap and Mansi Tuteja from Physics department attended One Week Short Term Course (STC) on "Advanced Energy Materials" from October 12-16, 2020. Organized by National Institute of technology, Jalandhar, India.
- Raj Kumar, M.Sc. Mathematics student presented the paper titled, "A Literature Review of Linear Programming Problems:Based on Case," in the 2nd International Conference On Innovative Studies Of Contemporary Sciences-II, Tokyo , Japan, (Aug17-19, 2020).

- Ridhi Bhatnagar, M.Sc. Mathematics student, presented the paper entitled, Image Processing Using Multiscale Transform: A Review, in the Tokyo Summit II: 2nd International Conference on Innovative Studies of Contemporary Sciences, held during August 17-19, 2020 at Tokyo, Japan.
- Ridhima Nehra, M.Sc. Mathematics student, presented the paper entitled, Comparison of Image Denoising Using Wavelet Transform and Wavelet Packet Transform, in the Tokyo Summit II: 2nd International Conference on Innovative Studies of Contemporary Sciences, held during August 17-19, 2020 at Tokyo, Japan.
- Mansi Mangla and Chhavi Baliyan, BSc(H) Mathematics students published the paper entitled, Future Population and Literacy Rate Projection in India, in the TEST Engineering & Management, Vol (83),10128-10138 in May 2020
- Varun Prakash, Raghav Sagar, students of B.Tech CSE specialization in DSML 3rd year, presented Research Paper on "When Cartoon Meets Anime - Distinguishing Animation Styles with Convolutional Neural Networks" (Online) Paper Presentation at ICIEM 2020 (Scopus Indexed IEEE conference) organized in collaboration with IEEE UK and Ireland Section 18 June 2020.
- Students of BBA program, presented a research paper at the National Young Economist Conclave-2020 on the use of Artificial Intelligence in the Indian Banking Sector on 27th Feb 2020-
- Pratibha, M.Sc (Mathematics) student presented research papers entitled 'On Skew strong McCoy Rings' in 67th Annual Conference of Bharat Ganita Parishad – 'Conference on Modern Analysis and Applications – An International Meet' organized by Department of Mathematics & Computer Science, sponsored by SERB & DST held on 16th & 17th November 2019 at BBDU, Lucknow.
- Ridhima Nehra, M.Sc (Mathematics) student awarded with Best Oral presentation award for the paper entitled 'Application of Wavelets in Chemistry' in Green & Sustainable Chemistry Conference GSCC 2019 sponsored by (SERB, DST, IOCL & RSC) held on 7th & 8th November 2019, at Department of Chemistry, ManavRachna University, Faridabad.
- Alka, M.Sc (Mathematics) student, presented research paper entitled 'A Note on Enestrom- Kakeya Theorem' in 67th Annual Conference of Bharat Ganita Parishad – 'Conference on Modern Analysis and Applications – An International Meet' organized by Department of Mathematics & Computer Science,

sponsored by SERB & DST held on 16th & 17th November 2019 at BBDU, Lucknow

- Ms. Akshita and Ms. Ekta from B.Ed. Semester IV (2018-20) presented their papers on the theme of 'Education for Sustainable Development' in a conference held at IIPM Ghaziabad on 15th Feb 2020.

4.9 INSTITUTIONAL SOCIAL RESPONSIBILITY (ISR)

Under the 'UNNAT BHARAT ABHIYAN, Ministry of Human Resource Development (MHRD), aiming to connect the higher educational villages around, for transfer of knowledge to enrich rural India, MRU has adopted five villages.

- To promote human values of "care and share", students' visit to villages at the close vicinity of the University has been an essential part of the Orientation program of first year students. This time, it was scheduled on 23/07/2019, wherein a group of 80 students had visited the four villages. To encourage environment preservation and to motivate children towards benefits of greenery, under tree plantation initiative, saplings, were planted by children and our students in the school campus as a token of the need to take self-responsibility to spread greenery wherever and whenever possible. Students and the faculty members of the school were very excited to receive saplings. The first-year students got divided into groups wherein they formed groups of school children and conducted several activities like music contest, dance contest, games like kabaddi, kho kho etc. Children participated with great zeal and rejoiced every moment of the activity. The best performing groups were gifted and encouraged with lot of motivation and applause.
- Students from different clans visited Anangpur village - govt school for Diwali celebrations under clan activities on 24th October 2019. More than 40 students along with faculty coordinators enthusiastically volunteered for the activities. The students and faculty distributed gifts and prizes for winners in various competitions. The students participated with zeal and enjoyed themselves.
- Diwali of 2019 was celebrated by spreading happiness and joy amongst the children of Prakashdeep NGO. The volunteers interacted with the children and entertained them by playing games and doing various fun activities. The children also got the opportunity to showcase their creativity and decorated diyas with the help of our volunteers. The diyas were later put for sale in the University in the Diwali Mela on 18th of October 2019 and all the money collected through selling them was donated to the NGO for the benefit of the children
- The LEO CLUB organised a visit for the children of Prakashdeep NGO to the University where they explored the university, learned some things, and also

showcased their talents. The children were engaged in a day full of fun and learning. The children truly showed that a book should not be judged by its cover by doing some amazing dance performances.

- On 20th and 27th February 2020, 110 student volunteers along with 25 faculty and staff members from different faculties of Manav Rachna University carried out donation drive and a survey in all the villages to find out their basic requirements. Objective of conducting the survey was to identify issues and problems to further prepare a proposal for village upliftment. Villagers whole heartedly participated in the survey process and provided requisite information.
- In Mewla Maharajpur 400 books related to pedagogy skills for teachers and 700 subject books were donated. Along with the books 200 dresses (shirt, trousers, tie and jackets) and 200 pair of socks were also donated. In Fatehpur 669 books on pedagogy and 29 subject books were donated along with 200 dresses and 200 pair of socks.
- Leo Club decided to organize a rally in order to raise awareness regarding the harms of single use plastic. The morning began with enthusiasm as around 100 students and staff members participated in the cause. The rally witnessed placards and signboards like “Green Manav Rachna” and “Stop bagging the planet, say no to plastic”. The rally also suggested affordable alternatives to plastic.
- Clan Water Sharks of Manav Rachna University invited Sh. Ravi Kalra (Founder of The Earth Saviours Foundation) on account of Children’s Day, for a session to enlighten students on human values. Students were inspired by his great personality and were motivated to take care of our Mother Earth and help everyone in any possible way that they can.
- MRU conducted “EK MUTTHI DAAN” drive in the month of March and April 2020 with the theme “no one sleeps hungry”. In each of these drives all MRU Faculty members and students donated a total of about 1500 Kg of rice to make a little difference to the life of the underprivileged by donating just a handful of grains.
- MRU organized Blood Donation Camp on 16th September 2020 in which both Faculty and staff members donated blood
- Faculty members and students of Computer Science & Technology Department, Manav Rachna University, visited Earth Saviour Foundation. Students interacted with residents, heard their stories, and also involved them in some special activities like dancing and singing. The residents not just enjoyed the

performances but also involved themselves in the activities which brought immense happiness and made them feel loved & cared.

Glimpse of some activities



CHAPTER - 5

SUMMER TRAINING/ INTERNSHIPS

Competition in the employment market is growing more stringent day by day. Passing semester exams and completing academic projects is an important thing, but summer training and internship gives industrial exposure to students. It is essential and helps to attain in-depth knowledge of the engineering stream. Today all organizations are looking for those graduates/degree holders who are technically sound, creative, and analytical. They don't want to spend time and money on training before putting employees on the job. That's the main problem faced by fresh graduates who apply for a job.

A quality solution for this problem is to take industrial exposure very seriously and gain practical knowledge as much as you can do. Manav Rachna University takes every possible effort to give the industrial exposure to students. Students also put their best efforts into attaining summer internship in order to be ready to face challenges in their career ahead. Modules covered for In House summery training by the departments are mentioned below:

5.1. SUMMER TRAINING MODULES (IN HOUSE SUMMER TRAINING)

5.1.1 Department of Chemistry

Summer training: B.Sc. 2nd semester; (2019-2022 batch) Chemistry

Topics to be covered:

1. Chemistry of water and its distribution
2. Global water footprint
3. Wastewater generation and characteristics
4. Wastewater parameters and its analysis
5. Water quality standards (WHO, BIS)
6. Water quality index (calculation)
7. Monitoring of water quality (secondary data)
8. Conventional wastewater treatment process
9. Concept of decentralized wastewater treatment
 - (a) Anaerobic treatment
 - (b) Aerobic treatment
 - (c) Bioremediation
 - (d) Solar desalination
 - (e) Case studies on decentralized wastewater treatment system.

Summer training: B.Sc. (4th semester, 2018-2021 Batch) Chemistry

Topics to be covered:

1. Introduction of research methodology
2. Ethical issues in research: Anti-Plagiarism Strategies for Research
3. Identification of research problem
4. Literature review
5. Research design : problems with research design
6. Sampling methods
7. Methods of data collection and presentation

5.1.2 Department of Physics

Topics to be covered:

1. Physics of plasma system.
2. Linux
3. Nanomaterial

5.1.3 Department of Mathematics

Summer Training Module for Post 2nd & 4th Semester B.Sc.(Hons) and Post 2nd Semester M.Sc

1. Introduction to MIT App Inventor 2 and Arduino Uno
2. Basic of Arduino Uno Led Blinking and Switch Pattern
3. Arduino Uno With Relay and RIFD
4. Arduino Uno LCD Interfacing
5. Arduino Uno with DC Motor and L293D
6. Project
7. TEST/ Viva/ Project Display

5.1.4 Department of Computer Science & Technology

Post 6th Sem. Internship,

Duration: 6 Weeks

Modules

- Internship/Project: Physical/Remote Internship or Web based/App based/ML based Project/Research Paper
- Online Course: Coursera/Saylor Academy/Any other E-Learning Platform

Post 4th Sem. Internship

Duration: 6 Weeks

Modules

- Internship/Project: Physical/Remote Internship or Web based/App based/ML based Project/Research Paper
- Online Course: Coursera/Saylor Academy/Any other E-Learning Platform

POST 2nd SEM

Duration: 4 Weeks

Modules

- Project: C/Python/UI Project
- Online Course: Coursera/Saylor Academy/Any other E-Learning Platform

5.1.5 Department of Mechanical Engineering

HVAC Module

Projects on Altair Software related to Design

- Turbulent flow through a pipe in Hypermesh
- Turbulent flow through acuconsole
- Post processing CFD results with hyperview
- Post processing CFD results with hyperview

5.1.6 Department of Electronics and Communication Engineering

Modules Covered

1. Altair Activate
2. Altair FEKO
3. Digital Image Processing
4. MIT App Inventor

The lists of Industries where students have completed their internships are mentioned in **Annexure 5.1**.

5.2 Students Placement Opportunities

The Placement Cell of Manav Rachna University has successfully climaxed another fruitful year of placements for the academic session 2019-20. With a remarkable increase in the number of recruiters and the number of offers made, the session ended on a high note.

- Even in an already miserable job market wherein the current Covid-19 outbreak has taken a significant toll on the economy, the Cell observed recruiting a considerable number of students from our campus.
- Department of Computer Science & Technology witnessed esteemed recruiters including TCS, INFOGAIN, IBM, Extra Marks, NIIT Technologies, COGNIZANT, Cavisson Systems, WIPRO, LIDO Learning, NOKIA, Damco Solutions, Bristlecone, JARO Education and many more.
- Students of Electronics and Communication Department successfully employed by NIIT Technologies, TCS, Infogain, ACS Solutions Tianyin Worldtech India Pvt Ltd Lido Learning, 3 Pillar Global, Expert Lancing Research Services and Varite India Private Limited with average salary 4.11 LPA.

- Faculty of Management and Commerce could get recruiters like Amazon, Bangalore, Mixture DTDC, Wipro HR Services etc. Students from Department of Mechanical Engineering are successfully recruited by reputed companies like Sonalika Tractors, Indigo, Expert Lancing, Polymedicure, OSM Projects Private Ltd and Oswal Casting Pvt Ltd with average salary of 3.17 LPA.
- Teacher trainees of Faculty of Education and Humanities got opportunity to be appointed as teachers in various reputed schools like Manav Rachna International School Charmwood, Faridabad, St. Columbus School, Dayal Bagh, Shri Dhronacharya Public School, Faridabad, New Green Field School, Saket New Delhi, Saint Raman Public School, Delhi. Dynasty International School, Faridabad, Nav Jyoti Senior Secondary School, Ballabhgarh, St. Peter School, Kalka Public School, New Delhi, Ferns and Petals, Ease Admissions JanakPuri, Delhi etc. Placement details are available in **Annexure 5.2**.

 HSBC	 MARUTI SUZUKI	 MobiKwik	 S&P CAPITAL IQ	 valtech.
 Agilent Technologies	 Adobe	 GM	 Microsoft	 ICL
 एन एच पी सी NHPC	 Deloitte.	 POLYMED Medical Devices	 wipro	 N.S.D.C National Skill Development Corporation ...Transforming the skill landscape
 WADHWANI FOUNDATION ENTREPRENEURSHIP NETWORK	 MIRIS Manav Rachna International School	 INTEL	 Pidilite	 इंडियन ऑयल Indian Oil Corporation Limited
 Dr.Reddy's	 JUBILANT INDUSTRIES	 FEDERAL BANK YOUR PERFECT BANKING PARTNER	 sarvodaya HOSPITAL	 asian Institute of Medical Sciences
 Siddharth GREASE AND LUBRICANTS PVT. LTD.	 technoPlanet	 Shiprocket	 DECATHLON	 KEEROS™

CHAPTER: 6

ACHIEVEMENTS OF FACULTY

The faculty members of Manav Rachna keep themselves updated in consonance with emerging trends in education and latest thrust areas in research by involving in various academic activities. Following details throw light on their remarkable achievements, participation along with their endeavors in different associated fields. Their contribution is commendable in empowering learned society either by becoming member of committees, invited speaker, reviewer /editor of research journal or external examiner etc., Several Faculty members are given special recognition and awarded for their exemplary work during session 2019-20. Listed below are some of their participations, awards and recognitions.

6.1 E-Content Developed

- Dr.Savita Sharm, Assistant Professor, Department of Education, Developed four weeks MOOC on the Topic, ‘Nurturing Mindfulness in Educators and Learners ‘ at IIT Kanpur Online Platform (Mookit) from 25th March - 21st April 2020
- Dr Sachita Yadav, Associate Professor, Department of Management, Developed a Mooc Course on Basics of Financial Modeling for MOOKIT platform and running the same.

6.2 Membership of International/National Societies/Committees/ Sessions Chaired/Lectures Delivered:

- Ajay Thomas, Director Faculty of Law was appointed as a member of the prestigious Paris-based ICC Commission on Arbitration and ADR. This Commission is the International Chamber of Commerce’s (ICC) primary think tank and rule making body in the field of international dispute resolution. (February 2020).
- Dr. Aditya Sharma, Assistant Professor, Department of Physics, was invited as a invited speaker in International Symposium on synthesis and characterization of smart material and their potential applications, 14-17 June 2020, Guru Gobind Singh, Indraprastha University, New Delhi.
- Dr. Aditya Sharma, Assistant Professor, Department of Physics, has been appointed as Associate Editor of Interface Assisted Phenomena for Advanced Applications in Applied Nanoscience (SCI, Journal with I.F.3.5) of Springer-Nature. ISSN- 2190-5517.
- Dr. Aditya Sharma, Assistant Professor, Department of Physics, has been selected as role of reviewer in the journal: Material Science and Engineering B and Vacuum offered by Elsevier (ScienceDirect).

- Dr. Aparna Vyas, Associate Professor, Department of Mathematics, has been appointed as Editorial Manager for Journal of Computational and Applied Mathematics, June 2020.
- Dr. Megha Bansal, Associate Professor, Department of Chemistry, was Invited as External Examiner in Ph.D. assessment committee for evaluating the progress of PhD students' research work of Medicinal Chemistry of the first, second, and third batch at NIPER-R, Lucknow, Campus, Lucknow.
- Dr. Babita Parashar, Dean Faculty of Education & Humanities, was invited as a resource person in an International Webinar on Digitalization of Education conducted by OSH University and Manav Rachna University on June 20th, 2020.
- Dr. Savita, Assistant Professor, Department of Education was Invited as a resource person to conduct the Expert Session on 'Mindfulness and Self Awareness' on 13th March 2020 as part of two days Early Years Training Programme for teachers of Manav Rachna International Schools.
- Ms. Manpreet Kaur, Associate Professor, Department of Computer Science & Technology, was attended invited as a Session Chair, WIE Track, 17th conference of IEEE India Council, IEEE Indicon 2020 at Netaji Subhas University of Technology
- Dr. Mrinal Pandey, Associate Professor, Department of Computer Science & Technology was appointed as a member of Project Review steering group (PRSG) for the Project Entitled " Machine learning approach for suspect face retrieval using verbal description given by an eye witness" associated with Ministry of Electronics and IT (MeitY) for the implementation by GLA University Mathura.
- Dr. Mrinal Pandey, Associate Professor, Department of Computer Science & Technology, was appointed as a member of Project Review and Steering Group (PRSG) for the Project Entitled "Design & Development of Artificial Intelligence framework using Data Analytics for detection of Chronic Illness from Retinal Images" being implemented by Centre for Development of Advanced Computing (Mohali) and Government Medical College & Hospital (GMCH)(Chandigarh).
- Dr. Parneeta Dhaliwal, Associate Professor, Department of Computer Science & Technology, delivered an expert talk on Handling Data Diversity using Machine Learning during the one Week Faculty Development Program on "Computational Intelligence Techniques for Machine Learning" organized by JAY PEE UNIVERSITY OF INFORMATIONTECHNOLOGY, Shimla
- Dr. Parneeta Dhaliwal, Associate Professor, Department of Computer Science & Technology, was selected for the role of reviewer for the ICMAI-2021 Conference at SGT University.
- Dr. Manmeet Bali Nag, Associate Professor, Department of Management is Nominated as Innovation Ambassador by IIC & MHRD

- Dr. Manmeet Bali Nag, Associate Professor, Department of Management has been appointed as Reviewer for Book Chapters on "Entrepreneurship & Big Data" of CRC Taylor & Francis Publications
- Dr. Sujata Nayak, Professor & Head Department of Mechanical Engineering chaired a Session at Scopus Index International Conference, on 18th & 19th Dec 2019, GLA University, Mathura.
- Mr. Ajay Thomas, Director Faculty of Law, delivered Expert lecture on "Arbitration and Alternative Dispute Resolution" at the Online Management Development Programme on Public Procurement organised by the National Institute for Financial Management for Brigadier-rank officers of the Indian Army on 30th January & 14th February 2020
- Mr. Ajay Thomas, Director Faculty of Law, delivered Keynote Address at a National Seminar on Alternative Dispute Resolution organised by Department of Law of Bharati Vidyapeeth Institute of Management & Research (BVIMR) on 24th February 2020
- Mr. Ajay Thomas, Director Faculty of Law, delivered Expert lecture on "What's in a name? The seat and venue conundrum" to the legal and commercial teams at GAIL India Limited on 2nd March 2020.
- Mr. Ajay Thomas, Director Faculty of Law, was Resource person at a two-lecture webinar series on "Amendments to the Arbitration & Conciliation Act, 1996" organised by the Central Public Works Department (CPWD) National Training Academy on 10th & 22nd June 2020.
- Dr Manmeet Bali Nag, Associate Professor, Department of Management was selected for the role of reviewer for the prestigious NAFSA Conference.
- Dr Manmeet Bali Nag, Associate Professor, Department of Management was Invited as resource person speaker, representing Center for Peace & Sustainability.
- Dr Pragati Chauhan is appointed as a member of the Faridabad BYST mentors' group
- Dr. Savita Sharma, Assistant Professor, Department of Education, Delivered Expert Talk at the official online platform of GGSIPU on 29th May 2020 on the Topic 'Integrating Mindfulness in the Classroom' and on 5th June 2020 on the Topic 'Relationship of Knowledge and Curriculum'

6.3 Webinars & Workshops Organized

- Dr Savita Sharma, Assistant Professor, Department of Education, Organised an Expert lecture 'WOMEN EMPOWERMENT THROUGH EDUCATION: UNDERSTANDING EMERGING TRENDS' delivered by Dr. Harpreet Kaur Jass

(Jamia Millia Islamia) on 5th March 2020 as part of the celebration of Women's Day.

- Dr Savita Sharma, Assistant Professor, Department of Education, Conducted Workshop for the Teachers of Manav Rachna International Schools on the Topic 'Mindfulness for Teachers' on 13th March 2020.
- Dr. Megha Bansal, Associate Professor and Dr. Ekta Rawat, Assistant Professor, Department of Chemistry, conducted a workshop entitled "Virtual Chemistry: Innovative Solutions". The workshop focused on making online teaching learning processes of Chemistry in an effective manner especially for Laboratory work. Faculties from different schools of MRIS participated in the workshop.
- Dr. Megha Bansal, Associate Professor, Department of Chemistry, Conducted a Webinar on Leading Sustainable Chemistry: Education and Career Aspects. Learn about sustainable chemistry and explore various career aspects.
- Dr. Sandeep Kumar, Associate Professor, Department of Physics, Organized a webinar on "Organic optoelectronic sensors for biomedical Applications", Dr. Ashu K. Bansal, School of Physics and Astronomy, University of St Andrews, St Andrews, U.K at Dept. of Physics, MRU Faridabad on 11th June 2020
- Dr. Sandeep Kumar, Associate Professor, Department of Physics, organized a webinar on "Interferometry based Microscopy for cell biomechanics", Speaker-Dr. Vijay Raj SINGH, Laser Biomedical Research Center (LBRC), MIT Bostan, USA at Department of Physics, MRU Faridabad on 5th June 2020
- Dr. Sandeep Kumar, Associate Professor, Department of Physics, Organized a webinar on "Two-photon absorption in bulk semiconductors and QW structures and its applications", Speaker-Dr. Himansu S. Pattanaik, CREOL, The College of Optics & Photonics, University of Central Florida, USA at Dept. of Physics, MRU Faridabad on 28th May 2020
- Dr. Rashi Banerji, Assistant Professor, Department of Management organised a webinar on Importance of Technical Analysis in Stock Market in association with EMKAY, Securities
- In an attempt to forge academic cooperation ties with other law schools, the Faculty of Law partnered with National Law University Odisha (NLUO) and the Salgaocar College of Law, Goa to host an international webinar on "Clinical Legal Education: International Perspectives". The speakers were leading clinicians and clinical professors from the USA, Brazil, South Africa, Bangladesh, Thailand and India on 10th July 2020.
- The Faculty of Law was a co-host at an international webinar on the theme "Legal Education in the BRICS". The other co-hosts were the University of KwaZulu Natal (South Africa), South Ural State University (Russia), Wuhan University's School of Law (China), and the Brazilian Centre for Mediation and Arbitration (CBMA) organized on 11th August 2020.

6.4 Certification Awarded to the Faculty:

- Ms. Hanu Bhardwaj, Head & Associate Professor, Department of Computer Science & Technology successfully completed the “CMI Level 5 Certificate in Management and Leadership” certification of CMI (Chartered Management Institute) on Jan 2020.
- Dr. Jyoti Pruthi, Professor Department of Computer Science & Technology successfully completed the “CMI Level 5 Certificate in Management and Leadership” certification of CMI (Chartered Management Institute) on Jan 2020.
- Dr. Megha Bansal, Associate Professor Department of Chemistry successfully completed certification course on Design e-course with Canvas-LMS for 21st Century, Organized by RK University, Gujarat.
- Dr. Megha Bansal, Associate Professor Department of Chemistry completed AICTE Training And Learning (ATAL) Academy Online FDP on "GIS & Remote Sensing" organized by Siksha 'O' Anusandhan University with distinction.
- Dr. Megha Bansal, Associate Professor Department of Chemistry successfully completed the E-Shodh Sindhu Web of Science Certification Series course and Web of Science/ Clarivate Analytics Certification Program.
- Dr. Megha Bansal, Associate Professor Department of Chemistry Completed Certificate courses in (a) Achieving Sustainable Development Goals on Water and Sanitation (b) Energy Economics, Environment, and Policy by ADBI.
- Dr. Megha Bansal, Associate Professor Department of Chemistry successfully completed Faculty Development Programme on "Designing Outcome Based Education organized by Manav Rachna International Institute of Research and Studies in collaboration with Centre for Academic Leadership, Manav Rachna University as "Certified OBE Mentor"
- Dr. Pragati Chauhan, Associate Professor, Department of Management, received Certification from MHRD Innovation Cell for attending Leadership talk series with Shri Mahesh Babu, CEO, Mahindra Electric Mobility Ltd on 23rd May 2020
- Dr. Pragati Chauhan, Associate Professor, Department of Management, received Certification from MHRD's Innovation Cell for attending 16 online sessions on various themes of Innovation, Entrepreneurship, IPR and Startups from 28th April to 21st May 2020 and submitted e assessment for 12 sessions.
- Srishti Bathla, Assistant Professor, Department of Management, attended Three Day Online Training Programme on Research Methodology and Data Analysis, Conducted By Primax Foundation, Bangaluru, Karnataka.
- Srishti Bathla, Assistant Professor, Department of Management, attended National Webinar On Cyber Security: Challenges & Wayouts, Conducted By Dyal Singh College, Karnal

- Srishti Bathla, Assistant Professor, Department of Management, attended Webinar on "Research Methodology: An Overview" conducted by Atma Ram Sanatan Dharma College, University of Delhi
- Dr. Animesh Singh, Associate Professor, Department of Management, Attended Webinar on Future of education Post Covid by McGraw Hill. Participation certificate received
- Dr. Pragati Chauhan, Associate Professor, Department of Management, received Certification from MHRD Innovation Cell for attending First Leadership Talk Series with Ms. Ashwini Deshpande, Co-Founder and Director, Elephant Design on 6th June 2020.
- Dr. Rashi Banerji Assistant Professor, Department of Management participated in NITTTR STC on Big Data Analytics between 3-7 Feb 2020
- Dr. Pooja Kapoor, Associate Professor, Department of Management Participated in a NIIITR certified & AICTE approved FDP on "Research oriented project work"- 24-28 Feb 2020
- Dr Animesh Singh, Associate Professor, Department of Management Participated in NITTTR STC on Big Data Analytics held between 3-7 February 2020.
- Dr. Sachita Yadav, , Associate Professor, Department of Management Participated in a NIIITR certified & AICTE approved FDP on "Research oriented project work"-24-28 Feb 2020 Completed a 2-Week Faculty Development Programme on Research Methodology, Teaching Learning Centre, Ramanujan College and obtained a grade A+University of Delhi
- Dr Manmeet Bali Nag, Associate Professor, Department of Management received Certification from MHRD's Innovation Cell for the various online sessions on themes of Innovation, Entrepreneurship, IPR and Startups attended from 28th April to 21st May 2020 and submitted E- assessment for 12 sessions.
- Dr Manmeet Bali Nag, Associate Professor, Department of Management Participated in Moodle LMS FDP Organized by SRM Chennai. Certificate awarded-20/5/2020-29/05/2020
- Dr. Subodh Saluja, Associate Professor, Department of Management participated in Digital Transformation NXT: "Xperimental" to "Xponential"- Wiley Global Innovation Conclave at ITC, Bangalore on 5th Feb 2020
- DR Rashi Banerji, Assistant Professor, Department of Management Received Elite + Silver award certificate in 8 weeks CRM course by NPTEL (AICTE approved FDP)
- Dr. Savita Sharma, Assistant Professor, Department of Education, also completed the Following MOOCs offered by Mookit with Distinction

- Basis of Financial Modelling (6th April to 2nd May 2020)- 4 Weeks
- Designing Flexible Approach of Learning (10th May to 31st May)- 3 Weeks
- Cooperative Learning Pedagogy under UNESCO Open Education for Better World Initiative (4 weeks from 22nd May to 18th June 2020)
- Mr. Joginder Singh, Associate Professor, Department of Mechanical Engineering completed FDP on Product Design & Drafting Using Catia V5 organised by ICT Academy, from 17th to 23rd Nov 2019.
- Dr. sachita Yadav Publisher paper on “A Study on the Initiatives Taken by Bankers for Promoting Financial Literacy in Bangalore, India” in International Journal of Banking, Risk & Insurance, in Vol 8, Issue 1, March 2020, Pafe no. 43-61, ISSN Number 2320-7507. Indexed: Proquest, i-scholar database, EBSCO, <http://publishingindia.com/ijbri/56/856/2020/>
- Dr Sachita Yadav Presented Paper on Impact of Covid 19 on the Performance of Asian Stock Markets in theOne Day International Conference on Advances in Business, Commerce & Information TechnologyOrganized by the Department of Computer Applications, Management & Commerce, T. John College Bangalore
- Dr Pooja Kapoor and Dr Pragati Chauhan paper titled “Women Entrepreneurship through network marketing: the positive insight”, published in International Journal of Disaster Recovery and Business Continuity, Vol.11, No. 1 (2020), pp. 688-696, Indexed: Proquest, J-Gate Database, EBSCO, <http://serisc.org/journals/index.php/IJDRBC/article/view/7617>, March 2020
- Dr. Rashi Banerji’s paper titled “Cashless Payments in India: An Empirical Study on Credit Card Selection and Usage Preferences” accepted for Publication in International Journal of Financial Services. Indercience Publishers Ltd. Listed in ABDC, EBSCO.
- A Review Paper on Accounting Practices for Exploration and Evaluation Expenditure in Extractive Industry by Dr Pragati Chauhan at International Conference on Digitalization of Management and Social Sciences (ETTIC 2020) at Jaypee Institute of Information Technology (JIIT) on 6-8 Feb 2020.
- A paper on Inclusion of Bioethics in performance appraisal for promoting ethical behavior among doctors in hospital by Dr Parul Jhajharia at International Conference on Digitalization of Management and Social Sciences (ETTIC 2020) at Jaypee Institute of Information Technology (JIIT) on 6-8 Feb 2020.

CHAPTER – 7

OUTREACH & PROFESSIONAL ACTIVITIES

7.1 Student Activities & Achievements

Students are the stakeholders of the university who keeps the flag flying high. Student activities are an integral feature to promote a vibrant, stimulating, engaging and respectful campus culture. Manav Rachna University creates a balance between academic, curricular, and extracurricular activities for preparing the young adults for life.

The office of the Dean of Students is primarily concerned with students' welfare from entry to graduation. University life marks the beginning of one's career and requires one to make mental, physical, and emotional adjustments. MRU promotes the participation of students at International & National Level Activities, Institute & Department Level Activities and Social Activities. MRU Students Council Body works through its different clubs such as Technical Club, Cultural Club, Literary Club and Sports Club.

To get the students engaged and trained for the passion they pursue and to promote Institution social responsibilities, Clan was formulated in MREI. To strengthen the Clan activities, Institution Wise slots were allocated for all five verticals such that Literary, Cultural, Sports, Media, and ISR. In Manav Rachna University, Thursday is allocated for Manav Rachna Life Skills Program.

The accolades and achievements of students across various verticals are summarized, as under:

7.1.1 Technical Activities

IEEE Society

- Karan Rajoria, 3rd year student of B.Tech. Computer Science & Engineering, was "Selected as "Industrial Relation Coordinator" by Member of ""Delhi Section Student Network Team"" IEEE Delhi Section" on 27 May 2020, IEEE Delhi Section.
- IEEE, MRU organized a Webinar on Introduction to Augmented Reality for all aspiring developers using Unity 3D on 20th June 2020.
- IEEE, MRU organized a workshop on Industry development cycles and opportunities in market "A structured way of industry development cycles and opportunities in the market" on 13th June 20.

- IEEE MRU had organized a webinar on “Opportunities in Entrepreneurship“by the vibrant personality Miss Akshita Kapur on 4th June, 2020.
- A competitive programming **Codechef Campus Chapter** run by Hackers_Creed Club established at Manav Rachna University. The first 2 hr Online Competitive programming contest under Codechef Campus Chapter was organized on 14th February 2020 by Hackers_Creed

IN-House Trainings:

- **Machine Learning Using Python:** One month Training on Machine Learning using Python was conducted by Yogesh -B.Tech CST student, to develop the technical skills of students interested to pursue Machine Learning as their career domain.
- One month training on Cyber security was conducted by Deepak Rana, Prince Kaliraman and Lakshya; to train the students to successfully work in this domain and fetch highly paid jobs in the Industry. In addition to the summer training, regular in-house semester training is being organized to develop the Cyber security brains.
- One month IoT Training with primary emphasis on Hands-On Projects was conducted by the student coordinators Prince Kaliraman, Deepak Rana and Mukul Singh.
- In-House training on Web Applications was conducted by Palash Dubey during the semester, preparing students for developing quality apps. This was followed by hands-on-training on Android and iOS Mobile application development.

Society of Automobile Engineers society

- Workshop on “Assembly and disassembly of engine components” was organized on 13th Feb 2020 to give a glimpse of all the necessary components and their function to the students of a 4 stroke 4-cylinder diesel engine.
- SAE organised workshop on “Introduction to Internal combustion engines” on 3rd March 2020 to give an introductory knowledge about the automobile.



ISHARE

- Guest lecture by Mr. Suhaas Mathur, Senior Technical Manager at Green Building Council of India delivered lecture on Energy Simulation Software was organised on 10th February 2020.
- Mr. Vasu M S, Head, R&D, Voltas India Ltd. delivered lecture on Career opportunity in HVAC Industry after Covid Pandemic on 29th April 2020.
- Mr. Gianender Kajal conducted a workshop on Heat Load Calculation for Mechanical Students on 25th May 2020.

7.1.2 Achievements in Extra Curricular Activities:

- Ms. Ena Manchanda (BBA-FAA) Participated in Raw'20 Annual Cultural Fest of Rawal Institute of Technology held on 29 Feb 2020. There were 7 teams in which her team stood first in the Fashion Show and won a cash prize of RS 10000.
- Ms. Ekta from department of Education represented the department in teaching skill competition organized by Khalsa college of Education, Amritsar in May 2020 and secured third prize at all India online national skills.
- Ms. Shruti, from B.Ed. Semester IV bagged second position in the E-xtempore competition 'Youth and Empowerment' organized by School of Education and NSS Apeejay Satya University in collaboration with Mahatma Gandhi National Council for Rural Education on 6th June 2020.
- Ms. Manisha Arya a student of B.Sc. B. Ed. Semester VII received a National ICON award from Global Records and Research Foundation on 15th July 2020 for her contribution for Promoting Yoga.
- Ayush Gupta, B.Tech CSE 4th year student successfully completed "Oracle Certified Associate, Java SE 8 Programmer" certification by Oracle on 28 January 2020
- Umang, 1st year student of B.Tech. Computer Science & Engineering, received 1st position in Matribhasha Diwas in poetry competition on 20th February 2020, organized by Manav Rachna Center of Foreign Languages
- Students of Mathematics department Geetika, bagged 2nd Position for project in "Annual Cultural Fest" organized by J C. Bose University of Science & Technology, YMCA, Faridabad on 29 Feb 2020.
- Gauri, 3rd year student of B.Tech. Computer Science & Engineering, received 3rd position in Matribhasha Diwas in poetry competition on 20th February 2020, organized by Manav Rachna Center of Foreign Languages.
- Prince Kaliraman, 4th year student of B.Tech. Computer Science & Engineering, gave a Technical Talk and received Certificate of Appreciation on 15 May 2020 from Mar Baselios Christian College of Engineering and Technology, Peermade.

- Srushti Suresh, 4th year student of B.Tech. Computer Science & Engineering, was invited as Panelist in "Big Talks for Young Folks - Weekly Talk Show Series and received Certificate of Appreciation on 22 May 2020 by QS I-GAUGE
- Parul Taneja, 4th year student of B.Tech. Computer Science & Engineering, gave an Online Talk @ IPS school and received Certificate of Appreciation on 22 May 2020 by IPS School.
- Niharika, 4th year student of B.Tech. Computer Science & Engineering, Manav Rachna University, was Semi Finalist of Re Think Tank Session, organised by QS I Gauge on 10th June 2020.
- Pranjali Bharti- a third-year student of BBA LLB. (Hons) brought laurels by being selected as the Best Speaker in S.K. Puri Memorial International Moot Court Competition "JUSTIFIED19" in September 2019. Over 30 teams participated from various Law Schools in India. She was also awarded a cash prize of INR 15,000. The Moot Court Competition was held at Law Centre-II, University of Delhi.
- Tejaswi Dudeja, a student of 6th semester, BA.LLB. (Hons.) was selected as an Ambassador for All India Reporter and Bar Council of India after undergoing training at the AIR headquarters in Nagpur in association with the Government of Maharashtra.
- At the Inter-College Sports fest of Jesus and Mary College, Shanu Agarwal, a student of second year Law secured the first rank in the mixed doubles tennis match.
- The students of Manav Rachna University participated in BITS Open Sports Meet (BOSM) which is the annual sports festival of BITS Pilani, Pilani Campus from 13th September to 17th September. TEAM of POWERLIFTING brought laurels to the university by grabbing medals in various categories
- Students of Education & Humanities department Payal Solanki, Deepanshi Gupta, Anjali, Aparajita, Jyotsna, Priya Madhulika, Akshita, Pooja Chaurasia, Pooja Gupta, Ruby, Qualified Central Teacher Eligibility Test (CTET)- Result declared by CBSE.
- Students of Education & Humanities department Geetika, bagged 2nd Position for project in "National Level Micro Skill in Teaching Competition" organized by Khalsa College of Education, Amritsar on 28th May 2020

7.2 Events Organized

- The Legal Aid Clinic, in collaboration with the District Legal Service Authority (DLSA) and Haryana Legal Service Authority (HLSA), organised a legal aid camp at Surajkund Craft Mela from 2 February 2020 to 16 February 2020. Students actively helped visitors by addressing their law related queries and guided them on the usage of services available on National Judicial Data Grid and websites of the High Courts and District Courts.



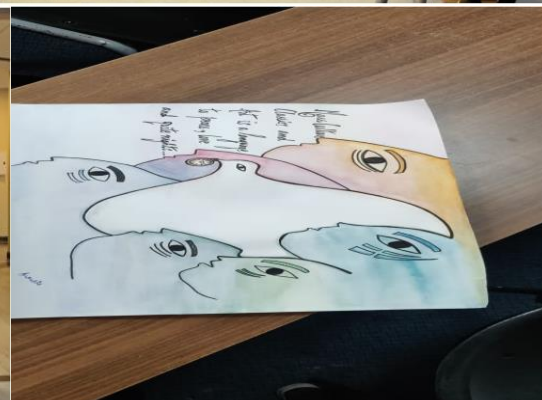


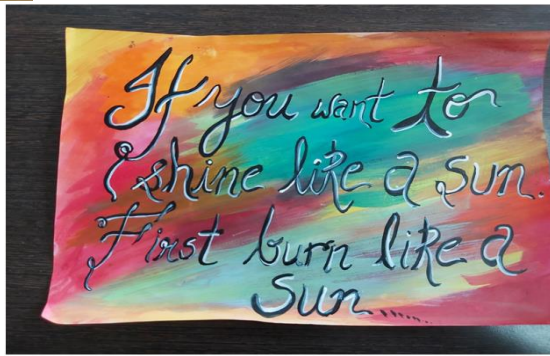
- Legal Aid and Awareness camps at Faridpur Village and Faridabad District in the months of February and March 2020 was organised. The group of 25 students sensitised the villagers about the laws against child abuse, consumer rights, RTI, FIR (First Information Report) and free legal aid.
- Facilitated by the DLSA, Faridabad, the Clinic organised a legal aid visit to Neemka Jail on 6 March 2020. The students performed Nukkad Natak to spread awareness among the prisoners about their rights.
- Manish Kumar Rai (BBA-HCM) won the 1st Prize in Online Open MIC organized by Clan Wild Cats, Manav Rachna University.
- Ms. Aparna (BBA-FAA) won the 2nd Prize in Poster Making Competition- Topic - Showing gratitude towards the warriors of COVID-19, Category
- On the Diwali Festival, the Department of Management and Commerce organized Rangoli Competition on Oct 24, 2019.
- Students and faculty members of Department of Management and Commerce, celebrated Lohri at the campus on 13th Jan 2020
- Department of Management and Commerce organized Teacher's Day celebration on Sept 5, 2019. The students were given blessings and wishes by Prof. (Dr.) Parul Jhajharia, Dean, Department of Management and Commerce and Prof. Jaideep Singh, Director, Industry Interactions.
- Fresh Face 2019 (8th August ,2019) was held for the new students or fresher's who had just enrolled in Manav Rachna University. The motive of the competition was to provide fresher's a platform, where they could showcase their talent and compete for the Mr.Fresh Face & Miss.Fresh Face title. More than 100 students enrolled for the event, out of which 22 students were short-listed under various categories.

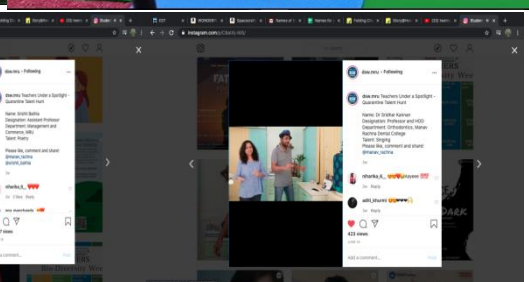
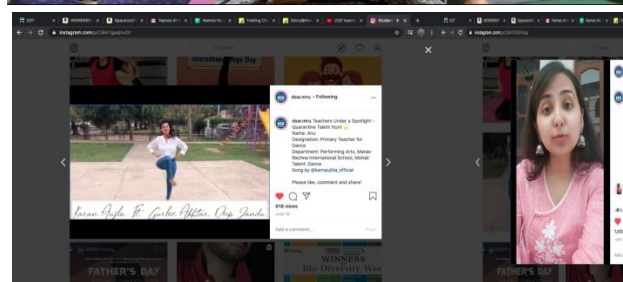
- Felicia the Art Society, Department of Student Welfare organised a logo designing competition on 12th September 2019.
- Felicia, the art society of Manav Rachna University organized a poster making competition on two of the most popular topics, one being centre for peace and other being alternative politics.
- Manav Rachna University organized a Book Lecture on "The Best Life Ever" by Mr.Aditya Shroff on 20 September, 2019.
- Senior students of the University welcomed its young engineers through Esperanza 2k19 on 21st September.
- MRU conducted its first Intra College Model United Conference on September 26th 2019, This was the concept encouraged by the UN itself.
- Rehnuma, Literary Society MRU organised an Essay Writing Competition on the Life of Guru Nanak Dev Ji on 23.11.19 Students of various departments participated in this event. This event was all about write your views on the Life of Guru Nanak Dev Ji the first Guru of Sikh.
- Rehnuma, Literary Society MRU organised a Slogan Writing Competition on National Education Day on 13.11.19 Students of various departments participated in this event with full enthusiasm. The event was organised on lieu of birth anniversary of Maulana Abdul Kalam Azad, great freedom fighter, eminent educationist and the first union minister of education.
- Manav Rachna University celebrated 5th Constitution Day or Samvidhan Diwas on 26th November 2019. The live webcast telecast of the commemoration function of the Constitution Day was addressed by the Hon'ble President of India, Hon'ble Vice President of India and Hon'ble Prime Minister of India at the Central Hall, Parliament House on 26th November 2019 from 11:00 a.m. onwards
- As part of the "Swachhta Pakhwada", an initiative of Ministry of Human Resource Development, Clan Wild Cats and Clan Forest Rhinos of Manav Rachna University consolidated to organise Poem Writing and Slogan Writing Competition on 16.1.20 to raise awareness amongst students about water and forest conservation as both the previous and latter are under constant threat of extinction and have become an endangered global resource.
- As part of the "Swachhta Pakhwada", Clan Wild Cats and Clan Forest Rhinos organised Plantation Drive in MR campus itself on 22.1.20 to raise awareness amongst students about environment protection by planting more and more trees in their surroundings so that problems like deforestation , global warming , climatic changes , pollution can be controlled to some extent.
- The Swachhta Pledge Taking Ceremony" was organized by Manav Rachna University on 16.1.20. Various faculties of the university took the pledge and vowed to make this mission successful

- The Music Society of Manav Rachna University, MRU MOKSH, organized an intra college singing competition, SURSHETRA, on 30th January 2020. Aman Kumar of BBA, MRU, won the competition with his melodious voice and also received cash prize
- The literary society of Manav Rachna University, REHNUMA organised a Debate competition on February 27, 2020 on the topic “Protests against CAA- valid or just another trouble for the common man”. This topic was chosen considering the current situation of Shaheen Bagh and North East Delhi.
- Department of Student Welfare, in collaboration with Clan Water Sharks celebrated International Women’s day along with the upcoming festival Holi on 5th March 2020.
- Manav Rachna Peace and Sustainability Club organized Power To Youth, A Holistic Wellness Programme for the students and faculties of Manav Rachna on 12.3.20. The speaker guest for the session was Mr. Sandeep Sharma who has 25 years of industrial experience and has been conducting sessions and workshops on soft skills, Holistic Wellness, personality development at some of the most premium institutions and corporates across India.
- Felicia, the art society of University, organized its first ever makeup competition, Maquillage, for the students of MREI on 12th March 2020. Tanu and Jyoti Sharma 2nd semester, Faculty of Education from Forest Rhinos won this competition and were honoured with cash prize.
- Felicia, the art society of University, organized a water colour painting and calligraphy workshop for the students and faculty members of MREI on 12th March 2020. The purpose of workshop was to learn, improve and expand watercolour painting and calligraphy skills.
- In this pandemic time when we have to stay at home all day, it’s important to look after our health, to tell the importance of yoga for a healthy body and peaceful mind MANAV RACHNA YOGA SESSION was organized on 21.6.20
- Quarantine talent hunt called ‘Teachers under a Spotlight’ is a continuous talent hunt series for teachers in which different teachers submit a video of them portraying their talents. Each day a different talent was highlighted on the Students welfare Instagram handle. The entries had talents from singing and dancing to cooking and sketching.
- The Department of Student Welfare in collaboration with IUCN CEC organized a photography competition on 6.6.20. Keeping lockdown guidelines and social distancing in mind, the participants were required to capture nature in its true essence. The theme for this photography competition was “Biodiversity”. The competition got around 47 entries and the participants clicked some really beautiful pictures.

- Manav Rachna Peace & Sustainability Club organized a discussion on Role of Youth Against COVID-19. This online discussion was conducted by Mukesh Das, student coordinator for the event under the aegis of Dr. Geeta Thakur, Professor-Manav Rachna University. The participants collectively and enthusiastically participated to discuss the role that youths can play in countering the current outbreak.
- Lockdown Photography Challenge, an online photography challenge was organized, participants were to send one innovative picture which they had clicked during the COVID-19 lockdown on 16.4.20 .The competition saw more than 50 entries.







LOCKDOWN PHOTOGRAPHY CHALLENGE
YOUR IMAGINATION IS THE ONLY BOUNDARY

CASH PRIZE WORTH Rs1000

Last Date - 16th April '20

Rules for the competition:

1. Only one entry will be considered per participant.
2. Participants must follow @bswstudentcouncil and @bswnews.
3. Best pictures will be selected by us and will be uploaded on our Instagram page.
4. The final result will be according to votes on your photograph.
5. Each like/comment of 1 vote and only votes of the followers of @bswstudentcouncil and @bswnews will be considered.
6. Open to all ages and categories of photography.
7. If we are not 100% following the rules.
8. But entry will be disqualified without any prior notice.

BSW STUDENT COUNCIL | KUMHAR NAGAR | GURGAON



7.3 Visit to Industries & Exhibitions

- To expose the students to the workings of an arbitration centre, the Centre for Excellence on Alternative Dispute Resolution (CADR) arranged a **field visit to the Delhi International Arbitration Centre (DIAC)**, which is annexed to the Delhi High Court.
- Under the supervision of Dr. S. K. Bose and Mr. Amit Kumar, Faculty of Law, Manav Rachna University, a team of law students visited the **Supreme Court Museum on July 26, 2019**.
- First year law students of Faculty of Law, attended a "**Tribute Paying Ceremony**" to the **Martyrs of 'Pulwama Attack'** on the occasion of **73rd Independence Day**. The program 'Jhanda Uncha Rahe Humara' was organized by ABP News. A tribute was paid to our martyrs by none other than Mr. Akshay Kumar, a very versatile and accomplished actor, who is dedicated to the cause of welfare of the families of those soldiers, who sacrifice their life
- On **21 August 2019**, the law students had the rare opportunity to meet **His Excellency, Mr. Fleming Duarte, the Ambassador of Paraguay**. The delegation of four students led by Mr. Shobhit Mohan, visited the Paraguay Embassy recently.
- Law Students from Faculty of Law attended a seminar on **9 August 2019** on "**Human Resource Development and Right to Information**". The seminar was organized by **Central Information Commission (CIC) at SCOPE Complex, New Delhi**.



- First Year BBA Students visited the Honda Motorcycle and Scooter India Pvt. Ltd. (HMSIL) located in Manesar, Haryana on 1st August 2019. Prof. Jaideep, Director Industry Relations organized this industrial visit. Faculty members- Mr. Subodh Saluja and Dr. Sachita Yadav accompanied the students for the visit.
- Department of Management and Commerce organized an Industrial visit for BBA OM Semester I & II students to Daikin Air Conditioning India Pvt. Ltd, Neemrana warehouse facility on 1st October 2019. Prof. Subodh Saluja and Dr. Rashi Banerji escorted the students to the industrial visit. It was a great learning experience for the students.
- Department of Management and Commerce organized an Industrial visit for BBA Healthcare Management students (Semester 1 and semester 3) to Apollo Hospital, Delhi on 5th Nov 2019.
- The Department of Management & Commerce organized an industrial visit to Medanta Medicity, Gurugram for the students of BBA Healthcare Management on 27th Jan 2020. Prof. Jaideep Singh (Director Industry Interaction) and Dr. Parul Jhajharia (Dean and HOD-Department of Management and Commerce) accompanied the students.
- Department of Management and Commerce organized an Industrial visit for BBA –Operations Management students (Semester II & IV) to Jaypee Sidharth Hotel, Delhi on 4th Feb 2020.
- Manav Rachna University organized an Industrial Visit to Infosys Ltd., Chandigarh Development Centre, for the First Year students of B.Tech. Computer Science & Engineering (CSE), CSE Specialized Programs (Data Science & Machine Learning, Digital Transformation Engineering, being run in collaboration with Xebia) & ECM students recently.



7.4 ORIENTATION 2K19

An Orientation Programme was organized to welcome the First Year Engineering, Sciences, Law, Education and Management students to the Manav Rachna family. The 3-week programme was conducted to accustom the students with the work culture at the University. The programme commenced with a havan ceremony to radiate positivity and pray for the student's progress in academics, achieving a bright future. The new entrants and their parents were welcomed, and a presentation was exhibited, giving them glimpses of the galaxy of Manav Rachna Educational Institutions, the regulations and the academic philosophy of the Institution. To create a sense of belonging towards the University, an introduction session of all the Deans, Director's, HODs, Faculties and Administrative staff was given to the new entrants.

As a unique blend of learning, fun and realization, the programme aimed at providing a smooth transition for the students into the new environment. Various bridge courses were run for the students to give them introductory knowledge about the departmental as well as interdisciplinary courses. Industrial talks were planned for the students where the Industry experts shared their technical expertise and the increasing Industry demand for good Engineers. In addition to this, alumni talks were organized who shared their experiential learning at Manav Rachna University and their journey thereafter. The Corporate Relations and Career Management Centre team briefed the students about their placement prospects. Various extra-curricular activities were planned for the holistic development of the new entrants. Literary, performing arts and sports activities were organized to develop a competitive spirit among the students. A concluding session was delivered by our Honourable Vice Chancellor, who motivated the students and enlightened them with the ethos of perseverance and self-belief.

An Industrial visit was planned by all the departments so as to destine the students and motivate them for the same.

9th July 2019 Orientation Programme



7.5 Third Convocation Ceremony

The Convocation of 2019 remained a day of great joy and exhilaration for the graduands and their parents who went down the memory lane, reminiscing university days while re-uniting with their friends and Alma mater. 226 degrees were awarded to under-graduate and post-graduate students of Manav Rachna University by the Chief Guest Sh. Manoj Kohli, Executive Chairman, Soft Bank Energy in the presence of Smt. Satya Bhalla, Chief Patron, MREI; Dr. Prashant Bhalla, President, MREI; Dr. Amit Bhalla, VP, MREI; Dr. I K Bhat, Vice Chancellor, MRU; Dr. Arundeeep Singh, Principal, MRDC; Dr. Sanjay Srivastava, VC, MRIIRS; and several veterans from the academic, corporate, government and administrative bodies. This was the third convocation of Manav Rachna University. President's Medal, Vice President's Medal, Patron's Medal, Vice Chancellor's Medal, Student Leadership medals and Outstanding Academic Achiever medals were bestowed upon students on the occasion.

On this solemn occasion, MRU also bestowed a Honoris Causa degree upon Dr. Narinder Dhruv Batra, President, Indian Olympic Association in recognition of his conscious contribution in sports, social and cultural philanthropy.

While congratulating all the graduating students, the Chief Guest Sh. Manoj Kohli said: "As you step into the professional world, maintain, and retain the three precious traits of honesty, hard work and humility. In your next ten years from now on, build a domain expertise because the respect of the future will be for people with deep domain knowledge, people who are experts in a particular field". The convocation memoir #Pratibimb was also released on the occasion. The distinguished alumni of the institution were present who handed over the alumni flag to the newest members (graduands) of the alumni association.





7.6 Alumni Network

MRU also has an Alumni Association to cater the needs to future students and establishing an everlasting relationship with our Alma matter. Manav Rachna Alumni Association organized a series of Alumni Events, Lectures for the current students during the year. Purpose of this interaction is to make the student aware of culture in the industries, options available to students after B Tech, latest technological trends/upcoming technologies in the relevant streams and to motivate students about progressing from university life to professional life keeping hand in hand with the basic attributes of life which are time management and positive attitude.

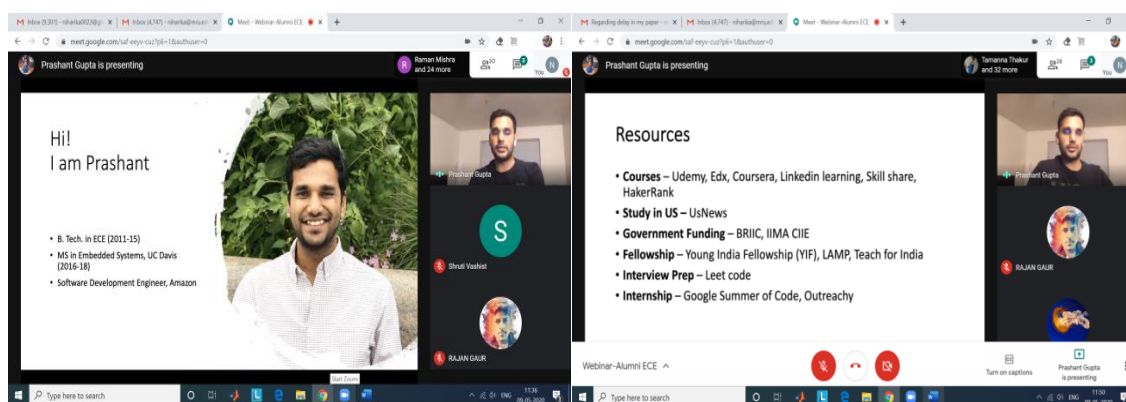
Alumni LECTURES

Alumni Lecture (2019-20) Mechanical Engineering Department

Name	Date	Batch	Topic
Shailesh Rathe	25/01/19	MRCE-18	Application of Sap in Mechanical Industry
Kirti Virmani	22/02/19	MRCE-17	Automobiles-Industrial Revolution
Chetan Dilawari	04-11-2019	MRCE-17	Overview of Fan Industry in Hvac
Gautam Ahuja	17/09/2019	MRCE-19	Automation in Robotics
Vansh Mudgil	19/02/20	MRCE-17	Anti-Collision Mechanism for Vehicle
Lakshay Sharma	30/04/2020	MRCE-17	Industry Consequences Against Covid-19
Chetan Dalwari	23/05/2020	MRCE-17	HVAC

- **Interaction with CSE Alumnus - Mr AJ Gauravdeep (BTech CSE 2005-09 Batch) on 7th May 2020:** AJ Gauravdeep, the alumnus of B.Tech CSE 2005-2009 Batch, interacted with the students from USA and enlightened them towards the right path for their wonderful and prosperous future. AJ Gauravdeep is currently working as Risk Foundation Manager with eBay, California and also the founder of O' BRUCE, a non_profit organization aimed at improving access to quality education for the unprivileged.
- Department of Electronics and Communication Engineering, Manav Rachna University organized a Webinar which was delivered by ECE Alumnus Mr. Prashant Gupta (2K11-15 Batch) on "**Ensuring Certainty in Uncertain Times-Gear up for the Industry**" for B.Tech students on 9th May, 2020. Mr. Prashant is currently working as a Software development Engineer with Amazon, USA. He also presented various career options for students to pursue after graduation as

per the recent trends in the market and also various open resources available for gaining skillset required. The students very keenly interested to talk to him and asked queries regarding startups in India, Career options in abroad etc.



7.7 Expert Lectures

- **The Manav Rachna Law Dialogues - First Edition:** The Faculty of Law launched a new initiative, "The Manav Rachna Law Dialogues". The first edition of this series of dialogues was held on 7th March 2020 on the theme, "Internships: Bridging the gap between expectations and reality". The panelists at this webinar were **Manish Lamba** Senior Vice President (Legal) DLF, **N Swaminathan** General Counsel, Tower Vision, **Prabhu Tandon** Partner, Sai Krishna Associates and **Sachin Kalra** Deputy General Counsel, HT Media.
- **The Manav Rachna Law Dialogues - Second Edition:** "An Overview of Anti-Corruption Laws in India" was the theme of the second edition of The Manav Rachna Law Dialogues that was held on 29 April 2020. Held in online mode, the distinguished speaker was **Vikas Pahwa** Senior Advocate who is also an Honorary Professor for Criminal Law at the Faculty of Law. The opening remarks were given by **Ajay Thomas** Director, Faculty of Law and the moderator for the session was **Divyakant Lahoti** AOR and Advocate, Lahoti Advocates.
- On **28 November 2019**, Faculty of Law, Manav Rachna University organized the **4th Expert's Lecture on Law**, which was delivered by Honorable Justice A. K. Sikri, Former Judge, Supreme Court of India and presently Judge, International Commercial Court, Singapore. The topic of the lecture was 'Supreme Court as the Custodian of the Constitution'.
- **Mr. Atyab Siddiqui**, an acclaimed Legal professional and educationist, interacted with the law students on **1 August 2019** on the very pertinent topic of 'Attributes of a successful lawyer' at Faculty of Law, Manav Rachna University.
- Resource persons from **Forensic Investigation and Consultancy Services (FICS)** visited the Faculty of Law on **6 August 2019**, to give a lecture on 'Cyber Forensic Investigation' for the students of law.

- The first training workshop on ADR under the aegis of the CADR was conducted by **Advocate AVS Subramanyum**, on 26 September 2019.
- On **18 February 2020**, Centre of Excellence on Alternative Dispute Resolution (CADR) at the Faculty of Law, Manav Rachna University organised a guest lecture by **Mr Abhinav Bhushan, South Asia Director, International Chamber of Commerce Arbitration & ADR.**
- The Moot Court Committee at the Faculty of Law, Manav Rachna University organised a moot court training workshop by **Mr Tariq Khan, Principal Associate, Advani & Co.** on **25 February 2020.**
- The Faculty of Law organised a subject talk on 'Role of Institutions in National Emergency: COVID-19' on April 22, 2020. The speakers for the session were Mr. Anand Sourabh, Indian Information Service Officer, GOI; Prof. Naved Jamal, Professor, Jamia Millia Islamia, and Ms. Neha Sinha, Consultant to ICWA.
- The Faculty of Law organised an **In-house workshop on CV Building and Professional Communication** on 27 February 2020 by Mr Ajay Bhatia. The workshop was attended by law students and faculties and they took a keen interest in knowing how to put their strengths and weakness into their CV. Mr. Bhatia talked about how to highlight achievements in the CV. He also suggested the students about do's and dont's that must be followed during an Interview.



- The Moot Court Committee organised the 2nd Intra Moot Court Competition. The problem involved issues relating to Constitutional Law and Family Law. Each team comprised of two students. The faculty members judged the students on six grounds.



Online Talk On

Role of Institutions in National Emergency: COVID-19

Speakers

- **Mr. Anand Sourabh**
Indian Information Service Officer, GOI
- **Prof. Naved Jamal**
Professor, Jamia Millia Islamia
- **Ms. Neha Sinha**
Consultant to ICWA

Contact for more details: 8527099099

Enforcement of Foreign Arbitral Awards: Recent Developments

April 23
5 pm to 6:15 pm IST

SPEAKERS



Justice Prateek Jalan
Judge High Court of Delhi



Gourab Banerjee
Senior Advocate

WEBINAR:

Support for or Interference in the Arbitral Process – A Discussion of Recent Decisions in the English and Indian Courts

April 28
4:00 pm IST

SPEAKERS



David Joseph QC



Ciccu Mukhopadhyaya

7.8. Webinars by External Experts

- Webinar on ‘Enforcement of Foreign Arbitral Awards: Recent Developments’ supported by Faculty of Law and CADR on **23 April 2020**. The speakers for the session were, Justice Prateek Jalan, Judge, High Court of Delhi and Gourab Banerji, Senior Advocate, Supreme Court of India and the moderators were, Shashank Garg, Partner, Advani & Co, and Omar Ahmad, Partner, Cyril Amarchand Mangaldas.
- Webinar on ‘Support for or Interference in the Arbitral Process’ was held on April 28, 2020. The speakers were David Joseph QC; Ciccù Mukopadhyaya, Senior Advocate; and the moderators were, Shashank Garg, Partner, Advani & Co and Omar Ahmad, Partner, Cyril Amarchand Mangaldas.
- Webinar on Appointment of Arbitrators: Concepts, Cases and Issues on **April 29, 2020**. The speakers for the day were Honorable Justice Sanjay K Kaul, Supreme Court of India and Honorable Justice Rajiv Shakti, High Court of Delhi.
- Webinar on Arbitration in India: The Good, the Bad, and the Ugly on **May 2, 2020**. The speakers for the session were Honorable Justice Ms. Indu Malhotra; Salim Moollan QC, Former Chairman, UNCITRAL; and Gourab Banerji, Senior Advocate, Supreme Court of India.
- A masterclass on “Fundamentals of Examination-in-Chief and Cross-Examination in a Civil Suit” **was held on 8th May 2020**. Justice Pradeep Nandrajog (Former Chief Justice, Bombay High Court) and Justice Rajiv Sahai Endlaw (Judge, Delhi High Court) were the two resource persons.
- The third edition of the “Back to Basics” series of webinars saw a lively discussion on “Claim of Damages under the Indian Contract Act”, where the distinguished speakers were Justice Jayant Nath (Judge, Delhi High Court) and Senior Advocate Amit Sibal. It was organised on **15th May 2020**.
- The CADR jointly with UNCITRAL National Coordination Committee for India (UNCCI) held a webinar on **16th May 2020** on the emerging area of Investor State Dispute Settlement (ISDS). The panel comprised of Dr Gabrielle Kauffman-Kohler (President, International Council for Commercial Arbitration), Marike Paulsson (Senior Advisor, Albright Stonebridge Group) and Promod Nair (Advocate and Arbitrator, Arista Chambers).
- The CADR jointly with UNCITRAL National Coordination Committee for India (UNCCI) held a webinar on **27th May 2020** on “Mediation as a Tool for Conflict Management”.
- A webinar on “Section 9: Power of the Court to grant interim relief in arbitrations” was organised by the Faculty of Law on **31st May 2020**.
- The Faculty of Law joined hands with the United Nations Commission on International Trade Law (UNCITRAL) and the UNCITRAL National Coordination

Committee for India (UNCCI) to host a webinar on cross border insolvency on **6th June 2020**.

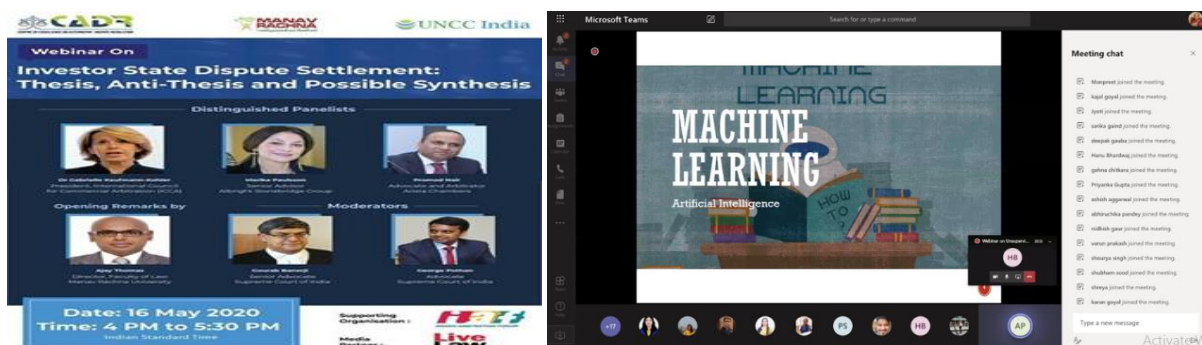
- **23 JUNE 2020**-MRU-DMC organized a training for BBA Final Year students. The course was divided into four modules viz FMCG Overview Typical Organization Structure, Area Planning, Field Systems & Distribution Systems & Incentives, Rewards and Recognitions.
- **27 SEPT, 2019** An interactive session was organised for BBA F&A US CMA Integrated students. The session was taken by Mr. Kuldeep Bhadana, CPA (US); CMA (India), currently working as Senior Manager, Regulatory Reporting, United Health Group.
- **27 JAN 2020**-The Entrepreneurship Cell of Manav Rachna University organized an awareness seminar for the students in association with Bharatiya Yuva Shakti Trust (BYST).
- **Xebia Webinar on 'Unsupervised Learning and Neural Network'30th June 2020**: Department of Computer Science & Technology, Manav Rachna University organized a webinar on "Unsupervised Learning and Neural Network", in collaboration with Xebia, for the Third year students of B.Tech CSE with specialization in Data Science & Machine Learning. The speaker for the same was Mr. Ashish Pandey, Xebia. He gave the basic idea of machine learning, the difference between supervised and unsupervised learning, artificial intelligence, and neural networks. Various learning algorithms were put forward during the presentation which can be used to implement real life problems. Students also got to know the industrial importance of artificial intelligence and neural networks.
- **Mind & Meditation | Online session on 20th May 2020L "If you have a stress-free mind, your thoughts will be positive"~ Sri Sri Ravi Shankar**: Keeping this in mind, the Department of Computer Science & Technology, Manav Rachna University, organised an online session on "Mind and Meditation" for the students and faculty members. The session was taken by Dr. Shobha, Deputy Registrar, Manav Rachna University.
- Live Talk Show by IndiaSpark| Future of Jobs in Financial & Technology Sector during Covid-19 Times on 18th May 2020.
- Seminar by **Brainstorm Achievers On "GATE preparation"**5th March 2020: The Department of Computer Science & Technology organized a session for GATE preparation for the students of B.Tech. CSE 2nd and 3rd year. Mr. Saroj Kumar Suman, IIT Delhi Alumni and Brainstorm Achievers Founder, was the resource person for the session.
- Seminar by **upGrad On "Online Higher Education"**12th March 2020: Department of Computer Science & Technology, Manav Rachna University, organized a session on upGrad Online Higher Education Platform for B.Tech. CSE 3rd Year students. Mr. Gaurav Sharma and Ms Meghna, currently working

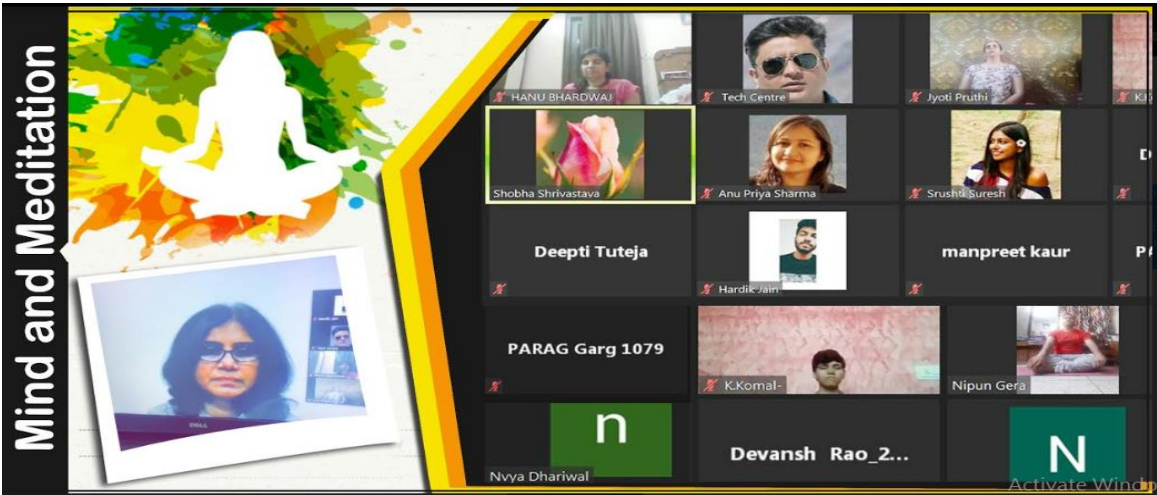
with India's Largest company for Higher Education - upGrad, were the resource persons for the session.

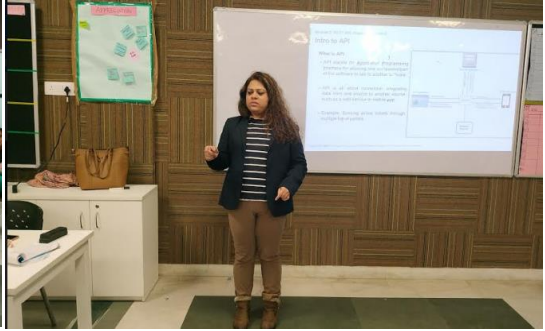
- **STC by NITTTR (ICT based) On “Big Data Analytics”3rd-7th Feb 2020:** Department of Computer Science & Technology, Manav Rachna University, organized **one week ICT based Short Term Course on Big Data Analytics by NITTTR Chandigarh** during **3rd Feb 2020 till 7th Feb 2020**. Around 45 faculty members from MRU and MRIIRS participated in the STC. The event was coordinated by **Prof. Anu Priya Sharma and Prof. Ankur Kumar Aggarwal**.
- Expert Talk by Mr. Kartikeya Raman on “Data Privacy Awareness” 31st January 2020.
- ‘Train the Trainer’ Program by Xebia on “Modern Web and Mobile frameworks” and “Unsupervised Learning”23rd to 27th Nov 2019.
- **Expert Talk by Xebia on “Software Craftsmanship” 18th Nov 2019:** Department of Computer Science and Technology, Manav Rachna University, in association with Xebia, organized a workshop on Software Craftsmanship.The expert for the workshop was Mr. Rahul Sharma, Director – Delivery, Xebia with over 14+ years of industry experience. He explained key design concepts like SOLID principles, Technical Debt, Code Smells, Refactoring etc. All concepts were accompanied with example codes to understand them better.Overall it was a knowledgeable session for 2nd Year B.Tech CSE students, specializing in Digital Transformation.
- **Workshop by Xebia on “Understanding Basics of Agile”15th Nov 2019:** Department of Computer Science and Technology, Manav Rachna University, in association with Xebia, organized a workshop on ‘Understanding Basics of Agile’ on November 15, 2019.The expert for the workshop was Ms. Meetu Singh, Director – Agile Consulting & Transformation, Xebia. She possesses 20+ years of experience as Business Excellence Leader, Agile Coaching, and Consulting & Training.
- **“Demystifying Artificial & Machine Learning”15th Nov 2019:** Department of Computer Science and Technology, Manav Rachna University organized a Workshop on ‘Machine Learning and Supervised Learning’ on November 15, 2019, in association with Xebia.
- **Workshop by Xebia On “Demystifying Artificial & Machine Learning”14th Nov 2019:** Workshop on “Demystifying Artificial & Machine Learning” was organised recently by the Department of Computer Science and Technology, Manav Rachna University, in collaboration with Xebia. The resource person for the workshop was Mr Divyanshu Sinha, Program Manager, Xebia. He is IBM certified in Hadoop and Deep Learning using Tensorflow. He is presently pursuing his Doctorate in the area of AI & Machine Learning.
- **Workshop by Dr. Mayank Aggarwal On “BlockChain Technology”16th Oct 2019:** One Day Workshop on "Blockchain Technology" was organised on 16th

October 2019 by the Department of Computer Science and Technology, Manav Rachna University. The resource person for the workshop was Dr. Mayank Aggarwal, Associate Professor & HoD Computer Science & Engineering at Gurukul Kangri University, Haridwar.

- Expert Talk by Anubudh Academy On “Cracking the Technical Interview”^{31st} July 2019:** Department of **Computer Science & Technology, Manav Rachna University** organized a seminar on **“Cracking the Technical Interview: Get that high paying job”** for B.Tech. CSE 3rd & 4th year students. Vineith Kaul (MS Georgia Tech Atlanta, USA) & Swati Raina (MS University of Maryland College Park, USA), Founders – Anubudh Academy were the resource persons for the talk.
- Workshop on “Matlab and Mathematics Magic” by Mr P. Vikram Kumar on 06th March 2020:** The Department of CST organized a workshop on Matlab and Mathematics Magic. Mr P. Vikram Kumar, who has been conducting similar workshops across the country for the past few years, was the resource person. Mr. Vikram is an IIT Chennai alumni, Founder member of Padaayi and Project Associate since 2018 at IIT Chennai







7.9. International Collaborations and Linkages

Manav Rachna University signed two Academic Agreements with two foreign universities during the academic session July 2019-June 2020. The details are as follows:

- Yuan Ze University, Taiwan (6th September 2019)
- Wentworth Institute of Higher Education, Australia (30th September 2019)

The objective of the collaborations is to foster and develop cooperative relationships between the two institutions through activities like student and faculty exchange, joint research and consultancy activities, cooperation in curriculum development, special short-term academic programs and projects and participation in seminars and academic activities.

- The Faculty of Law organised a series of five webinars jointly with UNCITRAL's Regional Centre for Asia Pacific and the UNCITRAL National Coordination Committee for India (UNCCI). UNCITRAL stands for the United Nations Commission on International Trade Law, and it is the Vienna-based primary legal body of the United Nations system in the field of international trade law. These webinars covered topics relating to the current work being done by UNCITRAL, including mediation, commercial arbitration, insolvency, and investor-state dispute settlement (ISDS). The speakers at these webinars were a veritable Who's Who of the legal world and included Justice Indu Malhotra (Supreme Court of India), Justice Madan Lokur (Supreme Court of Fiji), Salim Moollan QC (Mauritius/UK), Judge Allan Gropper (USA), Judge Srdan Simac (Croatia), Gourab Banerji Senior Advocate, Professor Gabrielle Kauffman-Kohler (Switzerland), and Professor Lawrence Boo (Singapore). (May-September 2020).

7.10 Green Initiatives of the University

"To produce human resources sensitive to issues of Environment and Sustainable Development" and "To develop Environment and Sustainable development as a thrust area of research and development" as our mission statements, the emphasis is laid on developing a robust institutional culture of sustainability and environmental awareness.

The concept of Sustainable Development has been integrated into all the, academic/co-and extra-curricular/administrative, domains of the university.,

Introduction of Electives: Electives like Environment and Sustainability, E-waste Management, Green Computing, Environment Management and Remote Sensing, are offered to the students to inculcate environment awareness and multidisciplinary problem-solving approach and to facilitate collaborative learning across different disciplines.

Green Mission Policy: The University has Green Mission Policy in place for Environment Sustainability, Energy and Water Conservation. The objective of this policy is to ensure that the university operates sustainably by managing its energy and water consumption with the usage of energy and water efficiently, wisely and responsibly.,

Environment Awareness Workshops / Seminars: The students and faculty members are sensitized on environmental issues like Composting, Bringing butterflies home through various workshops and lectures/seminars/webinars.,

Research: The academic workforce of the university - faculty members and students are engaged in the research to find optimal solutions to various environmental challenges like water pollution, solid waste management. Patents like dustbins to handle sanitary wastes, biodegradable sanitary napkins have been filed by the faculty and students.,

Extra- and Co-curricular Activities: The students are duly mentored by their faculty members to work on various projects and showcase their talents at various national and international platforms. Manav Rachna has a well-established Manav Rachna Life Skills Programme, MRLSP, – the concept of the CLAN to provide a rich nurturing ground for honing the life skills of the students. There are 4 Clans, each represented by an environmental element and a mascot – The Air Falcons, The Water Sharks, The Forest Rhinos and The Wild Cats. The activities are conducted throughout the year., Holistic Development via various Dean Students' Welfare - Student Council coordinated innovative competitions like "tik- tok challenge", "Surshetra-Online Solo Singing Competition"... and meditation and fitness-oriented online sessions.,

The university has embraced GREEN PRACTICES, some of the measures are listed below:

Water Conservation:

- Rain Water Harvesting: Manav Rachna University has adopted Rain Water Harvesting and groundwater recharge at three sites on the campus.
- Water treatment: Using recycled/treated water for Horticulture and flushings,

Alternative Energy:

Institute has installed a grid-connected 10 KWP solar PV at car parking & grid-connected 308 KWP rooftop, solar PV system.,

- Partial installation of timers on water refrigeration units has helped in energy conservation. LED lamps, motion sensors, solar panels, and solar water heating systems in hostels have helped in power conservation.

- We have separate contracts for disposal of hazardous material such as e-waste, bulbs/tube lights, old, batteries, old engine oil, old batteries, etc. Vendors are approved by Haryana Pollution Control Board.
- Partial installation of timers on water refrigeration units has helped in energy conservation. LED lamps, motion sensors, solar panels have been installed at various points on the campus.

Waste Management:

Recycling of Wastes: Metal and paper wastes are disposed of by recyclers. During instructional activities, reducing and reusing paper by adopting measures like using both sides of the paper, online examination, reduced the distribution of printed flyers and training material, printing on-demand, etc.,

Installation of a composter: We have installed an organic composter. The composter transforms the food waste from the entire campus and grass into organic compost within 24 hrs. The entire operation is fully automatic, noise-free, odor-free and does not generate any harmful gases or by-products. Its capacity is 75, Kgs per day and will produce approx 7.5 Kg of compost daily.,

Waste disposal: There are separate contracts for disposal of hazardous material such as e-waste, bulbs/tube lights, old batteries, old engine oil, old batteries, etc. Vendors are approved by Haryana Pollution, Control Board.

Apart from this, MRU has played a pivotal role in awareness drives conducted under Haryana Env. Protection Foundation, HEPPF. Faridabad district was divided into four Zones.

A Nodal center was chosen for each zone where government and public schools students, teachers and leaders participated. A zone was dedicated to colleges and universities too. The objective of the awareness drives was to mobilize the youth to identify their role in environmental protection.

CHAPTER: 8

INTERNAL QUALITY ASSURANCE CELL

Based on the guidelines of the National Assessment and Accreditation council, Manav Rachna University has constituted an Internal Quality Assurance Cell to take quality initiatives for improving the academic and administrative performance of the institution. Key objectives of IQAC include organization of activities relating to the enhancement of educational quality and development & application of quality parameters. IQAC cell is engaged in developing mechanisms for timely, efficient, and progressive performance of the various academic and administrative units of the university. Under the Cell periodic academic review of the various departments were organized, which supports taking specific quality improvement measures for further improvement. The Cell plays a key role in promoting a quality culture in the University. Faculty & Staff training, workshops and expert lectures are organized by the cell from time to time to train faculty and students for enhancing the quality of education and student support services.

In Academic Session 2019-20, following new practices were introduced addressing to quality improvement

Criterion wise departmental quality reviews as required by NAAC

- Quarterly AQAR quality check for departments
- Online teaching and assessment introduced during COVID 2020
- CAPs introduced for BT and CO attainment
- CO assessment introduced in examination system and course plans
- SWOT analysis

8.1. FDP Organized

Seminars/ Workshops organized under IQAC/Departments AY 2019-20				
S. No	FDP Title	Facilitator Speaker	Organization	Date/Duration
1	Workshop on Scientific Writing Using LaTeX.	Dr. Dinesh Tripathi Dr. Ankita Gaur Dr. Advin Masih Mr. Ramapati Maurya	MRU	17 th – 18 th Jan 2020/ 2 days
2	Advance Neural Network	Mr. Aashish Sunil Pandey	Freelancer, Xebia	22-24 June 2020/3 days

3	DevOps and Test Automation	Mr. Mohsin Khursheed	Datamatics Digital, Xebia	25-30 June 2020/ 4 days
4.	Second series Cloud Degree Faculty Professional Development	Hopkins, Lindsay and Teston, William	AWS	13 May 2020/ 1 day
5.	Virtual Lab	Mr. Prateek	IIT, Delhi	16 May 2020/ 1 day
6	Modern Web and Mobile frameworks	Ms. Sujata Batra	Freelancer with Xebia	23-27 Dec 2019/ 5 days
7	Unsupervised Learning	Dr Girisha Gar	Freelancer with Xebia	23-27 Dec 2019/ 5 days
8	Supervised Machine Learning	Mr. Nitin Gujral	Freelancer with Xebia	10 -14 June 2019/ 5 days
9	Software Craftsmanship	Mr. Vipul Jain	Xebia	27- 29 June 2019/ 3 days
10	Renewable and Sustainable Energy Conversion systems		MRU	June 15-20, 2020

8.2 Public Lecture Series

S. No.	Edition	Name of the Speaker	Title of the Lecture
1	Seventh Manav Rachna Public Lecture	Dr. Aman Hingorani, Advocate at Supreme Court of India	Kashmir Issue: The Way Forward
2	Eighth Manav Rachna Public Lecture	Mr Gourab Banerji, Senior Advocate	Continuing relevance of Fundamental Duties in these COVID-19 times



8.3 SWAYAM -NPTEL

NPTEL Report July-Dec 2019

Manav Rachna University SWAYAM-NPTEL Local Chapter got “Active Status” (2nd Rank in Haryana) with 11 National Toppers, 6 Gold , 56 Silver, 110 Elite and 100 successfully completed certificates (Total 262 certificates).

The MOOCs enrollment and certification details are as under:

Total Enrollments	1131
Total Exam registrations	339
Total number of students appeared for Credit Transfer	181
Faculty certified for NPTEL-FDP courses	12

The department-wise distribution of students appearing for credit transfer is shown below:

Dept.	CST	EDU	ECE	MATHS
Students for credit transfer	117	39	6	19

A large number of students and faculty members have achieved National Topper Positions, Elite-Gold, Elite, and successfully completed certificates. The certificate category details are as follows:

Certificate Category	No. of Students	No. of Faculty
National Topper	8	3
Elite	107	3
Elite+Gold	3	3
Elite+Silver	50	6
Successfully Completed	88	2
Total=262	248	14

The Faculty and Students National Toppers: Details are shown In Table 1 and Table 2:

Sno	Name	Course Name	Department	Topper
1	Dr Chhavi Kulshreshtha	Interpersonal Skills	English	Topper of 5%
2	Mamta Arora	Python for Data Science	CST	Topper of 5%
3	Dr Versha Vahini	Gender Justice and Workplace Security	LAW	Topper of 5%

Faculty National Toppers, July –Dec 2019

S.no	Name	Course Name	Department	Topper
1	Ayushi Maurya	Corporate Social Responsibility	ECE	Topper of 2%
2	Rahul Thakur	Introduction to Machine Learning	CST	Topper of 1%
4	Gaurav Chhikara	Introduction to Internet of Things	CST	Topper of 5%
5	Anurag Rawal	Introduction to Internet of Things	CST	Topper of 5%
6	Somi Patel	Developing Soft Skills and Personality	EDU	Topper of 2%
7	Ayushi Maurya	Innovation Business Models and Entrepreneurship	ECE	Topper of 5%
8	Naina Goyal	Developing Soft Skills and Personality	EDU	Topper of 5%
9	Mansi Mangla	Discrete Mathematics	MATHS	Topper of 5%

Student National Toppers details, July – Dec 2019

The MOOCs enrollment and certification details are as under:

SEMESTER	2019-2020
	EVEN SEM
1. No of courses offered to students through SWAYAM?	25
2. No of students registered in SWAYAM courses?	151
3. No of students appeared in examination for SWAYAM courses?	137
4. No of students passed in SWAYAM courses?	137
5. No of students benefited with SWAYAM credit transfer?	137

The department wise distribution of students appearing for credit transfer is shown below:

Semester	2019-2020 Even Sem.					Total
	CST	EDU	ECE	Maths	Physics	
1. No of Courses Offered to Students Through Swayam?	12	4	7	1	1	25
2. No of Students Registered in Swayam Courses?	41	57	22	23	8	151

3. No of Students Appeared in Examination for Swayam Courses?	39	54	13	23	8	137
4. No of Students Passed in Swayam Courses?	39	54	13	23	8	137
5. No of Students Benefited with Swayam Credit Transfer?	39	54	13	23	8	137

Due to Covid situation, only course completion letters have been given to students and faculty in place of NPTEL certificates.

8.4 VIRTUAL LABS

Virtual Labs Workshop (9th September, 2019)

Manav Rachna University was declared as Nodal Centre for Virtual Labs, in association with IIT, Delhi, on 10th April, 2018. In continuation with this series for Virtual Labs workshops MRU organized a 4th workshop on “Virtual Labs” in association with IIT Delhi on September 9th , 2019. Subsequently workshops were organised on 30th January 2020 and 16th May 2020. An hour session on “Awareness of Virtual “ was conducted for new entrants on 25th Sep 2020 by Dr. Mrinal Pandey (Nodal Coordinator Virtual labs, MRU) and Mr. Narender Gauttam (Coordinator virtual labs(CST,MRU)).



**Semester wise Virtual Labs usage Report
VIRTUAL LABS USAGE**

Department	No. of students	No. of Virtual labs performed	No. of experiments	No. of students x No. of Virtual labs performed x No. of experiments
CSE	355	5	10	17750
ECE	17	4	14	952
ME (B.Tech+M.Tech)	48	12	8	4608
	5	7	8	280
Physics	200	6	4	4800
Workshop by IIT,Delhi	220	9	04	7920
Total usage				36310

Number of Virtual Labs Experiments Performed 48

VIRTUAL LABS USAGE

(January 2020 – May 2020)

Department	No. of students	No. of Virtual labs performed	No. of experiments	No. of students x No. of Virtual labs performed x No. of experiments
CSE	352	5	10	17600
ECE	11	2	4	88
ME	7	7	7	343
Physics	150	5	10	7500
Chemistry	52 - Education 47 - Chemistry	21 for B.Sc B.Ed [13 for M.Sc + 51 for B.Sc]	21 [13 + 51]	22,932 1,92,512
Total usage				240,984

Number of Virtual Labs Experiments Performed: 113

8.5 IQAC Calendar

In the Academic Session 2019-20, various initiatives were taken by IQAC for the quality improvement. The schedule for the activities carried out is shared below:

S.No.	Activity	Facilitator	Conducting Team/Cell / Department	Date
1	Standard formats for Course plan, tutorials, assignments based on COs revised	IQAC Executing Team	IQAC	Jul-19
2	FDP on Teaching Learning Pedagogy	Prof.I.K.Bhat	VC, MRU	2/07/2019-04/07/2019
3	End semester Review	IQAC audit teams	IQAC	Last week of Nov, 2018
4	MoU with Sahai Research Labs (OPC Pvt. Limited) (offers industry internships with stipend)	Dr.Charu Pathak, Prof. Shruti Vasisht	IQAC	6/8/2019
5	Expert talk on Innovation and Industry Internships	Mr. Prateek Sikka	IQAC and Sahai Research Labs	6/8/2019
6	Pre -Semester Course file review	IQAC audit teams	IQAC	January first week
7	Expert talk on "Artificial Intelligence for Future"	Kushal Tandon, Sr. Data analyst, Mu Sigma Corporation	Sahai Research Labs	11/2/2020
8	"Academic audit departmental for Criterion I and II (as per NAAC-SAR 19-20)	IQAC AQAR Team (cr1 and 2) Dr.Kiran , Dr.Hardeo, Dr.D.K.Sharma, Dr.Arpit	IQAC	February fourth week
9	Demonstration on Inpods, Accreditation Management Systems IQAC - IMS	Mr.Ajay Bhagwat, Inpods Co. Pune	IQAC	5/03/2020 week
10	SWOT analysis (Departments)	Dr.Charu Pathak	IQAC	first week of March

11	"Academic audit departmental for Criterion III and IV (as per NAAC-SAR19-20)	IQAC Respective Criterion Incharges	IQAC	March fourth week
12	AQAR Quarterly report Jan-March Compiled	Dr.Charu Pathak	IQAC	31st March, 2020
13	"Academic audit departmental for Criterion V and VI (as per NAAC-SAR19-20)"	IQAC AQAR Team	IQAC	April second week
14	"Academic audit departmental for Criterion VII (as per NAAC-SAR19-20)"	IQAC AQAR Team	IQAC	April fourth week
15	MS teams, Zoom, Google Classroom introduced for online teaching (COVID 2020)	IQAC Team	IQAC	May first week
16	CAPS and Attainment of BT, CO added to course plans for next semester (Online teaching July- Sept)	Dr.Charu Pathak	IQAC	10/5/2020
17	Online course plan reviews held	IQAC audit teams	IQAC	May second week
18	AQAR Quarterly report April -June Compiled	Dr.Charu Pathak	IQAC	30th June, 2020
19	Webinar of Healthcare Technology	Mr. M.Malaiyappan, Pantech Solution	IQAC	31st July 2020

8.6 Internal Academic Audit

Internal Academic Audit is conducted quarterly. The activities of each department are analyzed as per seven criteria specified by NAAC. The departments are required to assess themselves on the basis of activities pertaining to each criterion. This is followed by the analysis through the IQAC audit team along with Dean Academics and Vice Chancellor.

The analysis report output provided to individual department by the IQAC contains

- An estimate of the maximum points which were addressed through the activities.
- Analysis of various sub-points under each criteria addressed by the department.
- Suggestions regarding sub- points which were not addressed by the department.

Action Taken: The departments are asked to provide an action plan along with a timeline in order to address the suggestions given by IQAC, Dean Academics and Vice Chancellor.” **Minute of IQAC meeting held regarding review of academic audit process are attached in annexure 8.1**

Teaching Learning Process Review: In addition to the overall academic audit, IQAC also conducts department level course plan reviews twice a semester. It's conducted in three steps:

Four Audit teams conduct audits for all the departments twice a semester. The audit team reviews course plans in the beginning and status of courses in mid semester. The points to be focused in each cycle vary as per requirement eg. Defining COs, CO-PO mapping, Design of tutorials assignments, question papers as per CO and Blooms Taxonomy levels, Defining Course assessment plans, implementation of online teaching learning process etc. Random courses may be picked up by the team for audit from each semester of each program.

- The feedback of the audit is provided to the department and the department is given required time of maximum one week to implement the required modifications.
- After the allotted time duration, the department submits the action taken report wherever necessary.

CHAPTER: 9

NEW INITIATIVES

9.1 Innovative Practices in Teaching Learning

Faculties are focused on great instructing and keep on enhancing to give innovative and safe learning experiences for students during the COVID-19 pandemic. Faculties used various platforms, for example, Zoom, Microsoft Teams, Google Classrooms, Cloud Meeting, Cisco Webex, Udemy, Coursera, and so on. These are a portion of the mainstream platforms utilized by instructors which give a mix of devices separated from general media, for example, making recordings utilizing reports, dominate sheets PDFs, PowerPoint slides, conversation discussions for virtual classrooms, whiteboard highlights to make educating and learning more intuitive, numerous decision tests with moment assignments and conducting exams.



9.1.1 Project Based Learning Under the Industry Mentors

Under Altair CoE established with a vision to promote research and innovation in the area of Product Design and Development live projects were allocated to the students of Mechanical Engineering. Projects were divided into four verticals and each vertical has Project Mentors from Industry and Department. Projects were related to various fields of the industry i.e. Additive Manufacturing (3D Printing), Computational Fluid

Dynamics (CFD), Structural Analysis and Casting. Project Leaders from Mechanical Engineering are Joginder Singh, JP Sharma, Pradeep Mouria and Gianender Kajal. All the assigned projects had been executed under mentorship of Industry mentors, Abhijit Kulkarni, Sharad Mahour and Mr. Gopal Singh Rathore. The review process of Industrial live Projects was carried out by Industry Mentor from ICAT, Mr. Gopal Singh Rathore and DesignTech, Abhijit Kulkarni and Sharad Mahour on 27th February, 2020. Hon'ble Vice Chancellor, MRU, Dean Research, Dr Pradeep Varshney and Internal faculty members were also the part of the review committee. In addition to that 6 final year mechanical students were selected for Altair Virtual Internship Program for the duration 8 weeks during the month of July 2020 and certificates were given to the students at the end of Internship Program on 1st September 2020.

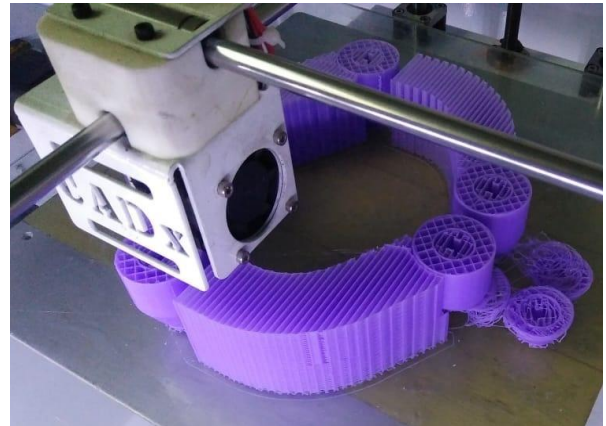
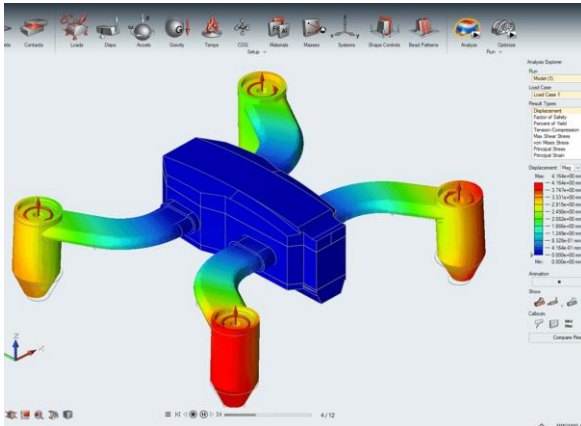
Detail of Projects Verticals and Project Leader:-

S. No	Vertical	Project Leader	Project	Project Completion Date	Team Member
1	Additive Manufacturing (3D Printing)	Joginder Singh	Design Optimization of Drone Structure	27-Feb-2020	* 2 Students of B.Tech 1 st Year
2	CFD	JP Sharma	* Conjugate Heat-Transfer * Laminar Pipe-Flow * Turbulent Flow	27-Feb-2020	* Student of B.Tech 3 rd Year
3	Structural Analysis	Pradeep Kumar Mouria	* Bending Load * Lateral Load * Pressure Load * Thermal Load	27-Feb-2020	* 2 Students of B.Tech 2 nd Year
4	Casting	Gianender Kajal	* Gravity Casting * Pressure Die Casting * High Pressure Die Casting	27-Feb-2020	* Student of B.Tech 4 th Year * Student of B.Tech 3 rd Year * Student of M.Tech 2 nd Year

Review process of the Projects by Industry Experts



Certificates Achieved by Students during Virtual internship Program:





Hardik Chaudhary

CERTIFICATE of ACHIEVEMENT

This is to certify that

Hardik Chaudhary

has completed the course

solidThinking InspireCast 2019 Advanced Examination

September 3, 2020







HARDIK



Pradeep Yadav

CERTIFICATE of ACHIEVEMENT

This is to certify that

Pradeep Yadav

has completed the course

solidThinking InspireCast 2019 Advanced Examination

September 8, 2020







PRADEEP



Karan Choudhary

CERTIFICATE of ACHIEVEMENT

This is to certify that

Karan Choudhary

has completed the course

SimSolid Advanced Examination

August 30, 2020







KARAN



Sanjay Singh

CERTIFICATE of ACHIEVEMENT

This is to certify that

Sanjay Singh

has completed the course

solidThinking InspireCast 2019 Advanced Examination


September 3, 2020







SANJAY



Prashant Sharma

CERTIFICATE of ACHIEVEMENT


This is to certify that


Prashant Sharma


has completed the course

solidThinking Inspire 2019 Advanced Examination

September 15, 2020







PRASHANT

9.2 Centre for Academic Leadership

Centre for Academic Leadership is established with the vision of empowering the academic fraternity to make future generation to be responsive, responsible, and productive and assume active roles locally and globally.

Academic Staff Leadership Institute aims to empower the academic fraternity academically, professionally, and technically using systemic approach to play their respective roles, to conduct research in latest pedagogies and educate academic fraternity of its impact and to connect the leading experts working in latest technologies to the academic community for up gradation of their knowledge and skills.

9.2.1 Academic Quality Enhancement Programme

- Training on “Designing Outcome based Education”: Training on “Designing Outcome Based Education” was conducted during 23rd December to 27th December 2019 with the aim of making faculty competent to use Outcome based education for their programme.
- Workshops on “Bloom’s Taxonomy and formulating BT based questions”: Workshop is conducted on “Bloom’s Taxonomy and formulating BT based questions” for the department i.e., Law, Education, Mechanical Engineering, EC Engineering, Computer Engineering, Management and Commerce, Chemistry, Physics, Mathematics, Dental Institute. Hon’ble Dr. I K Bhat, Vice Chancellor conducted workshops.
- Workshops on “Communication Enhancement”: Workshops on writing for results, Email –Etiquette, ABCD of presentation, finer aspects of presentation skills, Indianism + Common Errors, Phonetics + Commonly mispronounced words etc. Mr. Nitesh, AGM, CDC conducted the workshop with interactive sessions.
- Be Technocrat: Continuous trainings are being conducted to develop digital skills of faculty. These training were to enhance quality of online learning experiences of the students.
- The short workshops regarding using Zoom, Google classroom were conducted to facilitate faculty to conduct online classes which was urgently demanded due to pandemic. This workshop helped the faculty to cope up the challenges of conducting online class.
- Certificate Course on “Enhancing Online Learning Experience” of 24 hours was conducted on the topic for this course includes Digital tools for teaching learning, Digital tools for students’ engagement, Types of assessment, Digital tools for Assessment, Modes and types of feedback, Digital tools for feedback, Rubric, E-portfolios etc. Dr. Geeta Thakur conducted the course.

- Training on “Essentials of Online Learning with Microsoft Team” 18 hours was conducted on creating team, channel, conducting Team meeting, Microsoft Whiteboard, Online Assignment, creating quizzes and grading with Microsoft Form, One Note, Microsoft Stream, Microsoft Wiki, Flip Grid etc.
- Lightboard Mini studio A ministudio with lightboard is created by students of Mechanical Engineering for the online teaching.
- Identify, Implement and Promulgate (IIP): The purpose of the initiative “IIP’ is to enhance the quality of teaching, learning and assessment. This initiative is for identifying, implementing, and promulgating unique strategies by faculty and department.
- E-content/e-course creation: Centre for Academic Leadership is initiated a Project for "Online Course material (e-content) creation". Sessions on Design e-course with Canvas-LMS for 21st Century Learner was conducted by Dr. Kamlesh Patel Director, CBC, RK University, Gujrat Faculty learnt basics of canvas LMS, Design digital content Design assessment and creating e-course with Canvas LMS and Sessions on “Basics of e-content” and “Creative Commons license”

9.2.2 Empowering Academicians

Faculty Competency Repository

Manav Rachna competency repository of Manav Rachna University faculty is created. The detailed information about faculty’s professional achievement, their likes, dislikes, interest areas, vision, talents, potentials, dream plans is being sought with the help of google form, interview, peer interview, students’ feedback, senior’s feedback etc. This repository would be used for the development and academic empowerment of Manav Rachna University in a structured and systematic way.

ASLI CHAI

ASLI CHAI is a conscious informal gathering of faculty members of different areas to provide them a platform to share, express, get answers, contribute, and exchange knowledge with each other and from each other. ASLI CHAI emphasizes on the below mentioned aspects which is part of discussion.

- I have this to contribute: Faculty’s own idea, process, knowledge creation etc that they have implemented
- I have this to share: Knowledge gained from conferences, seminar, visits, meetings, classroom experiments etc that are worth sharing, worth knowing, worth learning.
- I have this to ask: Any question that faculty wish to get answers/ opinions to add to their knowledge/practice.

The first ASLI CHAI was conducted on 6th February 2020.

9.3 Manav Rachna Centre for Peace and Sustainability

Manav Rachna Centre for Peace and Sustainability (MRCPS) a center of excellence of Manav Rachna University is a visionary step for the Holistic Development of youth to build Peaceful New Bharat.

Manav Rachna Centre for Peace and Sustainability (MRCPS) was launched on 2nd October 2019. The center is initiated with vision to bring Peace and support the development of India's peace operations which are sustainable will result in emergence of "Peaceful New Bharat".



9.3.1 Activities under MRCPS

Collaboration with IPRA

MRCPS has collaborated with the Institute of Peace Research and Action (IPRA) that has been involved in peace activities since the last five decades. It has been involved in the past in dissemination of knowledge in peace, completed many projects, published books. Conducted seminars, organized peace lecture series involving faculty and staff of reputed organizations.

National Seminar on Alternative Politics: Peace and Sustainability on October 4th, 2019.

Manav Rachna University (MRU) organized a National Seminar on Alternative Politics: Peace and Sustainability in collaboration with Institute of Peace Research and Action (IPRA). The day-long seminar on October 4th, 2019 sponsored by ICSSR (Indian Council of Social Sciences Research) provided a platform to discuss and debate over the idea of Alternative politics, peace, and its associated dimensions. Prof. Ved Prakash, Former Chairman, UGC; Dr. Susheela Bhan, Chairman-IPRA; Dr. Prashant Bhalla, President, Manav Rachna Educational Institutions (MREI); Dr. Amit Bhalla, VP, MREI; Dr I K Bhat, VC, MRU; Dr Sanjay Srivastava, MD-MREI and other senior academicians as well as industry experts graced the occasion.

To construct and ignite the minds to create Peaceful society, Manav Rachna initiated the series of webinars through which we get direction from spiritual leaders who are truly “Shantidoot” of India.

Webinar “Four Pillars of Education” By Padmashree Dr. Karan Singh

Webinar on “Four Pillars of Education” on 21st May 2020 by Padmashree Dr. Karan Singh Sir, Champion of Interfaith dialogue and understanding, Indian politician and philanthropist.

Webinar “Climate Change: Threat to Global Peace: What lessons from COVID19 Pandemic”

Dr. Rajendra Shende, Chairman of TERRE Policy Centre, former Director UNEP on 29th May 2020.

Webinar on “Biological Disaster Management:

Post COVID19” on 13th June 2020 by (Prof.) Dr. Muzaffar Ahmad, Former member, National Disaster Management Authority (NDMA) Government of India.

Manav Rachna Centre for Peace and Sustainability organized a Webinar on “Emotional Balance in current times” on 17th June 2020 by Dr. Mohit Dayal Gupta, Professor of Cardiology & Medical Superintendent of Cardiac Sciences, GB Pant Hospital, New Delhi.

Webinar on 'Balancing Self, Family and Profession' by Sister BK Shivani on 27th June 2020.





9.3.2 Manav Rachna Peace and Sustainability Club

University plays important role as a convener and facilitator of support processes of SDGs to make impact in our society. Manav Rachna University introduced Peace and sustainability Club as University have a strong faith in youth power and their conviction in making a better world.

This peace club is a platform through which Students can pick up social, economic, and environmental issues. Together they can make small but impactful changes in surrounding and to themselves to make a difference and contribute to the better world.

Activities under Peace and Sustainability Club

1. **Power to Youth: A Holistic Wellness Programm.**
2. **Session on “Inner power for Success”**
3. **'Youth Against COVID-19- An online discussion'**
4. **World Health Day Challenge.**
5. **'Poets in Dark- Poetry Against Social Injustice'**



Online poetry writing competition with the aim to raise voice against social injustices in words was organized. Poems on injustices prevailing in the society bring us to crossroads and make us rethink the way society and all of us are moving. This event involved participation from students beyond our university and covering around 50 participants from universities across India from colleges like FORE School of Management, Delhi Technological University (DTU), Xavier School of Management (XLRI), Jamshedpur and many more on the list.

9.4 Center of Excellence on Alternative Dispute Resolution (CADR)

The Centre of Excellence in Alternative Dispute Resolution was launched by the Hon'ble Minister of Law & Justice, Communications, and Electronics & IT Sh. Ravi Shankar Prasad in the august presence of Justice R. C. Lahoti (former Chief Justice of India).

- Advocate AVS Subramanyum conducted the first training workshop on ADR under the aegis of the CADR, on 26 September 2019.
- On 18 February 2020, a guest lecture was organized by Mr Abhinav Bhushan, South Asia Director, International Chamber of Commerce Arbitration & ADR.
- One-day in-house National Training Workshop was organized on Arbitration for senior officers of RITES Limited at the RITES headquarters in Gurgaon on 27 February 2020.
- To expose the students to the workings of an arbitration centre, a field visit to the Delhi International Arbitration Centre (DIAC), which is annexed to the Delhi High Court was organized. Under the supervision of Ms Chaitali Wadhwa and Ms Pooja Trehan, Faculty of Law, Manav Rachna University, along with fourteen third-year law students visited the DIAC on 19th February 2020.



9.4.2 Webinars organized under CADR

- Subject talk on 'Role of Institutions in National Emergency: COVID-19' on April 22th, 2020. The speakers for the session were Mr. Anand Sourabh, Indian Information Service Officer, GOI; Prof. Naved Jamal, Professor, Jamia Millia Islamia, and Ms. Neha Sinha, Consultant to ICWA.
- Webinar on 'Enforcement of Foreign Arbitral Awards: Recent Developments' on **23rd April 2020**. The speakers for the session were, Justice Prateek Janan,

Judge, High Court of Delhi and Gourab Banerji, Senior Advocate, Supreme Court of India and the moderators were, Shashank Garg, Partner, Advani & Co, and Omar Ahmad, Partner, Cyril Amarchand Mangaldas.

- Webinar on ‘Support for or Interference in the Arbitral Process’ on April 28, 2020. The speakers were David Joseph QC; Ciccu Mukopadhyaya, Senior Advocate; and the moderators were, Shashank Garg, Partner, Advani & Co and Omar Ahmad, Partner, Cyril Amarchand Mangaldas.
- Webinar on Appointment of Arbitrators: Concepts, Cases and Issues on **April 29th, 2020**. The speakers for the session were Honorable Justice Sanjay K Kaul, Supreme Court of India and Honorable Justice Rajiv Shakti, High Court of Delhi. The moderators for the day were, Shashank Garg, Partner, Advani & Co and Aseem Chaturvedi, Partner Khaitan & Co.
- Webinar on Arbitration in India: The Good, the Bad, and the Ugly on **May 2nd, 2020**. The speakers for the session were Honorable Justice Ms. Indu Malhotra; Salim Moollan QC, Former Chairman, UNCITRAL; and Gourab Banerji, Senior Advocate, Supreme Court of India. The moderators were Mr. Ajay Thomas, Faculty of Law, Manav Rachna University and Ms. Adwaita Sharma, Advocate and Secretary, UNCCI. (YouTube Link: <https://youtu.be/BMjAUQxJLqQ>)
- A masterclass on “*Fundamentals of Examination-in-Chief and Cross-Examination in a Civil Suit*” held on **8th May, 2020**. Justice Pradeep Nandrajog (Former Chief Justice, Bombay High Court) and Justice Rajiv Sahai Endlaw (Judge, Delhi High Court) were the two resource persons.
- The third edition of the “Back to Basics” series of webinars saw a lively discussion on “Claim of Damages under the Indian Contract Act”, where the distinguished speakers were Justice Jayant Nath (Judge, Delhi High Court) and Senior Advocate Amit Sibal. It was organised on **15th May 2020**.
- The CADR jointly with UNCITRAL National Coordination Committee for India (UNCCI) held a webinar on **16th May 2020** on the emerging area of Investor State Dispute Settlement (ISDS).
- The CADR jointly with UNCITRAL National Coordination Committee for India (UNCCI) held a webinar on **27th May 2020** on “Mediation as a Tool for Conflict Management”.
- A webinar on “Section 9: Power of the Court to grant interim relief in arbitrations” was organised by the Faculty of Law on **31st May 2020**.
- The Faculty of Law joined hands with the United Nations Commission on International Trade Law (UNCITRAL) and the UNCITRAL National Coordination Committee for India (UNCCI) to host a webinar on cross border insolvency on **6th June 2020**.

Webinar On
Investor State Dispute Settlement: Thesis, Anti-Thesis and Possible Synthesis

Distinguished Panelists

Dr. Catherine Achille Mbembe
 Professor, International Institute for Environmental and Development (IIED)

Heena Pruthi
 Senior Advocate
 Advocate General, Supreme Court of India

Prakash Nair
 Advocate and Arbitrator
 Delhi High Court

Opening Remarks by

Ajay Thomas
 Director & Professor of Law
 Manav Rachna University

Moderators

Kunal Mishra
 Senior Advocate
 Supreme Court of India

George Pruthi
 Advocate
 Supreme Court of India

Date: 16 May 2020
 Time: 4 PM to 5:30 PM
 Indian Standard Time

Supporting Organization: **HEI**
 Media Partner: **Live Law**

WEBINAR
 Back to Basics Series – Part III
Claim of Damages under the Indian Contract Act

Distinguished Speakers

Justice Jayant Nath
 Judge, High Court of Delhi

Amit Sibal
 Senior Advocate

Moderators

Ankit Jain
 Advocate
 Delhi High Court

Vaibhav Agnihotri
 Partner
 ANU Associates

Friday, 15 May 2020
 3:00 PM Onwards

Media Partner: **Bar Bench**

United Nations UNCTAD
 CADR
 MANAV RACHNA
 UNCC India

Webinar On
Arbitration in India: The Good, the Bad and the Ugly

Saturday, 2 May 2020
 4:00 PM to 5:15 PM

WEBINAR:
Appointment of Arbitrators : Concept, Cases and issues.

29th April
 5:00 - 6:00 PM IST

SPEAKERS

Hon'ble Justice Sanjay K. Kaul
 Supreme Court of India

Hon'ble Justice Rajiv Shukder
 High Court of Delhi



9.5 Teacher on Call

Faridabad Education Council (FEC) is a multi-layered collective impact initiative designed to improve the quality of school education in Faridabad. The objective of the Council is to complement the efforts of the Government and contribute towards innovative development projects in the district through private contributions (CSR and Philanthropy) to improve the quality of education. The main role of FEC will be as an aggregator and facilitator and it will be the nodal point for bringing together the various stakeholders, members of civil society. The timings for the calls are: Mon to Sat –Evening 5:00 PM to 8:00 PM Sunday –Morning 9:00 AM to Evening 8:00 PM.

9.6 MOUs Signed

In the academic year 2019-20 university signed MOUs with various organization and industries to strengthen holistic education.

(1) FGSI & Kidzania: MoU was signed with FGSI & Kidzania, Delhi NCR on 07.01.2020 under the chairmanship of Dr. Pradeep K. Varshney, Dean Research. The purpose of MOU- was for organizing a joint event / fair / exhibition like YASH 2020.

Activities organized: - Foundation for Glocal Science Initiatives (FGSI) and Manav Rachna University (MRU) are jointly organizing a global science fair – 'YASH 2020' for researchers, innovators, entrepreneurs, and students from January 16-18, 2020.

(2) Sahai Research Labs: This Memorandum of understanding entered on 6th August 2019 between Manav Rachna University and Sahai Research Labs, India is involved in promoting research and development of low cost and affordable healthcare devices and technologies.

(3) SRIJAN SANCHAR: Manav Rachna University & Srijan Sanchar collaborated for research and industrial live projects in several domains of Electronics and communication. A Memorandum of Understanding was signed on 26th December 2019, between Manav Rachna University (MRU) and Srijan Sanchar to offer the projects and Center of excellence at Manav Rachna University. Under this MOU Srijan Sanchar will connect MRU to Industries, entrepreneurs, Industry associations, and other institutions of learning's to collaborate on research projects • Assist MRU in setting up of Centers of Excellence for focused research, learning and training.

(4) Truechip Solutions Pvt. Ltd and Future Tech Wizards LLP: Memorandum of Understanding (MoU) executed on 14th Jan 2020, between Manav Rachna University, Truechip Solutions Pvt. Ltd., and Future Tech Wizards LLP. The MoU was signed between Dr. I.K Bhat, Vice Chancellor, MRU, and Mr. Nitin Kishore, CEO, Truechip.

(5) National Council for Cement and Building Materials (NCCBM): MRU signed a MoU with National Council for Cement and Building Materials (NCCBM), Ballabgarh, on September 2, 2019. NCCBM is the premier body under the administrative control of the Ministry of Commerce and Industry, Govt. of India, for technology development, transfer, continuing education and industrial services for cement and construction industries.

(6) Quick Heal Technologies: A Memorandum of Understanding was signed 27th December 2019 between Manav Rachna University (MRU) and Quick Heal Technologies to offer B.Tech. Computer Science & Engineering with specialization in Cyber Security and Threat Intelligence program.





AWS Educate Faculty Professional Development

CHAPTER: 10

MANAV RACHNA CREATING BUZZ....

Dr. O P Bhalla Foundation donates Automatic Sanitizer Dispensers to 10 adopted villages

New Delhi/NCR (TIT NEWS) : Dr. OP Bhalla Foundation in collaboration with Prayas Initiative has donated Contactless Automatic Sanitizer Dispensers to 10 villages adopted by Manav Rachna Educational Institutions. The beneficiary villages include Mohna, Nariyala, Maujpur, Hirapur, Panhera Khurd, Pali, Ankhbeer, Anangpur, Mewla Maharajpur, Fatehpur Chandila. The machines have been installed in the school campus at the respective villages and will also be utilized at other open places of the village as per the requirement and advised by the village Sarpanch. The donation drive will impact around 90,000 people in all the villages. These automatic sanitizer dispensers have been made by the Prayas Initiative from re-usable plastic.



RATED THE BEST IN INNOVATION YET AGAIN

MRU has maintained a 4-star rating for 2019-2020 that has been awarded by AICTE- Ministry of Innovation Cell for our Institute Innovation Council. Ministry of Human Resource Development (MHRD), Govt. of India has established MHRD's Innovation Cell (MIC) to systematically nurture the Innovation culture among all Higher Education Institutions (HEIs).

Corporate leaders deliberate upon 'Leadership and Innovation for Atmanirbhar Bharat'

Deepthi Arora
info@manavrachna.com

New Delhi/ Ncr: ManavRachna Educational Institutions (MREI) along with Education Promotion Society for India (EPSI), NHRD, BIRTECH and O P Jindal Global University organized a talk on 'Leadership and Innovation for an Atmanirbhar Bharat' in the memory of renowned Management Guru Padma Shri Dr. Pritam Singh. Around 1000 participants from leading institutes of India and the corporate world took part in the deliberations. Mr. P. Dwarkanath, Chairman-Non Executive, CSK Horticks; Mr. S Y Siddiqui, Executive Advisor, Mantri Suzuki; Dr. H. Chaturvedi, Director-BIRTECH; Dr. PrashantBhalla, President, MREI; Dr. Sanjay Srivastava, MD, MREI and Dr. AshaBhandarker, professor, IIM shared their perspectives on various facets of leadership with the august gathering. Reminiscing the unique storytelling approach through which Dr. Pritam Singh would make the most difficult topics interesting, Dr. PrashantBhalla said, "I had the opportunity to observe several talks delivered by Dr.



This was the first in the series of Leadership Talks being organized in the memory of Padma Shri Dr. Pritam Singh

Pritam Singh who often used to focus on competitiveness. He would often ask not just students, but even corporate leaders to think and put down on paper – 'what is your purpose in life'. In that context, only when we strengthen innovation and research will our country remain competitive and move ahead. It is heartening to note that the government has been taking important steps in this direction. The National Research Foundation, envisaged under the New Education Policy shall support the culture of research and innovation in India's higher education institutions.



It will strengthen the culture of 'inclusion', 'innovation' and 'institutions' in the sphere of education. While writing the perspective for the talk, Dr. Asha reiterated that Atmanirbhar typically relates to self-resilience, self-confidence and self-responsibility. This was further reinforced by Mr. P. Dwarkanath, who said: "The principles of self-reliance and resilience are very imperative for a leader to possess. Deliberating upon the strong relationship between innovation and Atmanirbhar, Mr. Dwarkanath added that, "innovation need not come from the strategic level in an organization; innovation can come from the shop floor as well. All ideas need to be respected, whether or not being implemented. Make in India is not complete unless we say Make in India for the world... that is the transformation



we have to achieve." Dr. Chaturvedi said: "In an economy struggling with the impact of Covid, innovation and the Atmanirbhar Bharat campaign can give a fillip to our economy." Dr. S Y Siddiqui added: "For our country to be moving towards self-reliance, the biggest example that I have learnt from Dr. Pritam Singh is transformational leadership. The capability to adopt and adapt and adjust to the new business environment steers businesses towards growth. We will require virtuous leadership in the coming days. The next few years, will require distributive leadership to steer businesses out of the current crisis." This was the first in the series of leadership talks being organized in the memory of Dr. Pritam Singh. The other talks in the series will be held on October 1 and November 19.

स्मार्ट इंडिया हैकैरॉन 2020 की सॉफ्टवेयर श्रेणी में मानव रचना विजेता

फरीदाबाद, 10 अगस्त (यूरो) : मानव रचना यूनिवर्सिटी के छात्रों ने स्मार्ट इंडिया हैकैरॉन को सॉटवेयर श्रेणी में पहला स्थान हासिल किया है। बी.टेक कंप्यूटर साइंस इंजीनियरिंग के सतलु सेमेस्टर के छात्रों ने मिनिस्ट्री ऑफ सरल टेक्नोलॉजी को परेशानी को मुलाहाने के लिए 'एमके206' सॉटवेयर बनाया है। यह सेलफ हेल्प पुस के लिए नैन-नेटवर्क-इंटीग्रेड रिफॉर्म कोरिंग सिस्टम सॉटवेयर है। इस सॉटवेयर का मकसद, गांव में रहने वाले सेल्फ हेल्प पुस के लिए एक ऐसा रिफॉर्म सिस्टम तैयार करना था जो कि कम नेटवर्क गैपी कि 2जी नेटवर्क में भी काम करे और उनके रिफॉर्म मुश्किल रहे। चंडीगढ़ यूनिवर्सिटी नेटवर्क सेंटर में आयोजित ऑनलाइन प्रतियोगिता में प्रदर्शित किए गए इस सॉटवेयर को ज्यूरी द्वारा काफ़ी पुरांद किया गया, जिसका लिए मानव रचना



मानव रचना यूनिवर्सिटी के विजेता छात्र।

यूनिवर्सिटी को टीम एर404 को पहला स्थान और एक लाख रुपये से स मानित किया गया। बी.टेक कंप्यूटर साइंस इंजीनियरिंग के छात्र ऋषभ पियन, मुनमोय विजय, आयुष रिश, दीप भारद्वाज, विशालाज तन्वानी और अमय गुप्त ने अपने मंत्र प्रोफेसर अनुपिया शर्मा और प्रोफेसर अंकुर अराकान के साथ यह सॉटवेयर तैयार किया है।



Manav Rachna University signed an MOU with ICT Academy

Manav Rachna University (MRU) and ICT Academy (an initiative of the Government of India) signed an MoU that encompasses Faculty Development, Skill Development, Joint Research and Publications, Entrepreneurship Development, Digital Empowerment, and a strong Industry-Academia Interface.

मानव रचना विश्वविद्यालय ने आईसीटी अकादमी के साथ एमओयू पर हस्ताक्षर किए

पुणे, 4 सितंबर (एनएचएन)। मानव रचना विश्वविद्यालय (एमआरयू) और आईसीटी अकादमी (भारत सरकार की एक पहल) ने आज एक समझौते के तहत एक MoU पर हस्ताक्षर किए जिसमें संशोधन, कौशल विकास, संयुक्त अनुसंधान और प्रकाशन, उद्यमिता विकास, डिजिटल सशक्तिकरण और एक मजबूत उद्योग-विद्यालय इंटरफेस शामिल हैं। डॉ. के. वि. श्रीवास्तव, डॉ. सोनील शंकर, डॉ. एन. एन. शर्मा, डॉ. अशोक शर्मा, डॉ. प्रमोद कुमार, डॉ. सुनील शर्मा, एमओसी मैकेनिक्स, डॉ. प्रो. जयंत, एमओसी एमआरएचएसी और आईसीटी अकादमी एमआरयू के संचालक और अतिरिक्त विचार, प्रबंधक, आईसीटी अकादमी की उपस्थिति में डॉ. (ए.ए.) आर. के. शर्मा, कृष्णा, मानव रचना विश्वविद्यालय, पुणे, भारत और आईसीटी अकादमी ने एमओयू पर हस्ताक्षर किए। आईसीटी अकादमी राज्य सरकारों और उद्योगों के सहयोग से भारत सरकार की एक पहल है। यह एक दृष्टिकोण



मानव रचना विश्वविद्यालय (एमआरयू) और आईसीटी अकादमी (भारत सरकार की एक पहल) के बीच किए गए समझौते (आय: एनएचएन)

से सम्बंधित है, जो संशोधन-उद्योग-परिपूरण (पीपीई) मॉडल के तहत अपने काम का प्रारंभ करेगा। यह उच्च शिक्षा के शिक्षकों और कर्मियों को प्रोत्साहित करने का प्रयास करता है, विशेष रूप से पीपीई के शिक्षक और उद्योग के निर्यात कर्मियों का विकास होता है। आईसीटी अकादमी को उद्योग की कौशल आवश्यकताओं को पूरा करने के लिए शुरू किया गया है और विशेष रूप से आईसीटी क्षेत्र में उद्योग के विकास के लिए है।



INVITING OUR ALUMNI TO RE-CONNECT

The annals of MREI are replete with Young Achievers who have dazzled on national and international platforms. Manav Rachna is proud of each one of its alumni! The alumni portal (<http://alumni.manavrachna.edu.in/>) is feature-rich and provides a platform for alumni to interact individually and as a group.

NEP 2020 Knowledge Series by ASSOCHAM

ASSOCHAM's National Council of Education, chaired by our President Dr. Prashant Bhalla has been organizing the NEP 2020 Knowledge Series bringing together various stakeholders to deliberate upon the different facets of the New Education Policy. Under the series, various webinars are being organized to deliberate upon the successful implementation of NEP 2020.



Orientation Classes across all courses begin at Manav Rachna

Let's Begin a New Journey!

100+ NICHE PROGRAMS

MREI commenced orientation for the batch of 2020 from September 1. The orientation classes across 100+ niche programs at Manav Rachna started off virtually with excited freshers, faculty, and alumni as well.

Apply now in a course of your choice
www.apply.manavrachna.edu.in



Dr O P Bhalla Foundation in conversation with Daleep Akoi

Under the series of inspirational talks being organized by Dr. O P Bhalla Foundation; Mr. Daleep Akoi, a passionate environmentalist who has spent a lot of his childhood days in the beautiful and exciting surroundings of the Jim Corbett shared his experiences.

Union Minister Nitin Jairam Gadkari addresses hundreds of enthusiasts on how India can emerge as Global Manufacturing Hub and a 5 trillion economy!!

More than 500 Industrialists, and educationists from all over the nation participated in the web dialogue on: India- Emerging Global Manufacturing Hub presented by Bharat Niti in association with Manav Rachna Educational Institutions

Nitin Gadkari
Minister of Industry and Commerce

New Delhi / NCR: Stakeholders from the industry and academia gathered today at a webdialogue on 'Atmanirbhar Bharat: India- Emerging Global Manufacturing Hub'. Nitin Gadkari focused on how we can find a solution of this everlasting debate of what will happen to economy POST COVID 19, he said "MSMEs and agriculture work in symphony with the growing world market



and we can become a massive manufacturer by carefully planning and implementing the vision we have for a 3-trillion economy. The deficit of demand and supply is what we should consider and by liquidity crunch can be achieved for a developed and self-reliant economy we

aspire to be one day." It was a collective call that a paradigm shift is required in order to narrow the demand and supply gap as the industry runs by practice, skill acquired and experience but it can function and perform well only with astute planning, infrastructure and FDI. Each and every sector is a huge contributor in the economy and jobs need to be created for marginally weaker section as well. Dr. Prashant Bhalla rightfully quoted, "Educational Institutions and Industries together will have to prepare and boost the economy to fight the aftermath of COVID 19. Inspiring innovation despite the challenges that exist in the system is need for the hour & we shall work along together to change the educational landscape of India. India has the youngest workforce and when the world is in need we can be the massive manufacturer by promoting MAKE IN INDIA, MAKE FOR INDIA, and MAKE FOR WORLD."

डॉ. ओ पी भल्ला की 7वीं वर्षगांठ पर रक्तदान शिविर का आयोजन



20 OCT
आज के दिन को विशेष महत्त्व है...

17 OCT
विश्व स्वास्थ्य दिवस पर रक्तदान शिविर का आयोजन...

13 OCT
मानव रचना विश्वविद्यालय में शिक्षण...

09 OCT
दिल्ली विश्वविद्यालय में शिक्षण...

डॉ. ओ पी भल्ला की 7वीं वर्षगांठ पर उनको श्रद्धांजलि देने के लिए लगाया रक्तदान शिविर

By ANKUSH • September 14, 2020



मानव रचना यूनिवर्सिटी में पढ़ाया जाएगा एडव्लयूस वलाउड कंप्यूटिंग

मानव रचना विश्वविद्यालय में एडव्लयूस वलाउड कंप्यूटिंग का पाठ्यक्रम शुरू किया गया है। यह पाठ्यक्रम छात्रों को एडव्लयूस वलाउड कंप्यूटिंग के क्षेत्र में नौकरियों के लिए तैयार करेगा।

एडव्लयूस वलाउड कंप्यूटिंग एक क्लाउड-आधारित एप्लिकेशन विकास प्लेटफॉर्म है, जो डेवलपर्स को एप्लिकेशन को तेजी से बनाने और चलाने में मदद करता है।

कोविड-19 के खतरे को शिक्षा के नए मॉडल में बदलने पर चर्चा

कोविड-19 के खतरे को शिक्षा के नए मॉडल में बदलने पर चर्चा हुई। शिक्षा के क्षेत्र में नए मॉडल को अपनाने की आवश्यकता है।

शिक्षा के क्षेत्र में नए मॉडल को अपनाने की आवश्यकता है। शिक्षा के क्षेत्र में नए मॉडल को अपनाने की आवश्यकता है।

Manav Rachna family pays homage to Founder Visionary Dr. O. P. Bhalla on his 73rd Birth Anniversary

Manav Rachna family pays homage to Founder Visionary Dr. O. P. Bhalla on his 73rd Birth Anniversary

Delhi(NCR): More than 400 staff members of Manav Rachna along with their families participated in an online Bhajan Ceremony today to pay homage to our Founder Visionary Dr. O P Bhalla on his 73rd birth anniversary which also marks the 7th Founders' day of Manav Rachna Educational Institutions (MREI). This vast online gathering is testimony to the resolve of the Manav Rachna family that stands committed to making a difference in the lives of communities. While urging all members to remain safe in their homes, Satya Bhalla, Chief Patron, MREI said: "This unprecedented moment will definitely go down in history as a test of our resilience, courage and adaptability". Dr. Prashant...

President MREI Dr. Prashant Bhalla, VP Dr. Anil Bhalla and Chief Patron Mrs. Satya Bhalla and family members while online Bhajan Ceremony to pay homage to our Founder Visionary Dr. O P Bhalla on his 73rd birth anniversary which also marks the 7th Founders' day of MREI.

Dr. Anil Bhalla, VP-MREI thanked members of the MR family for their contribution in ensuring that "learning" across our campuses does not come under a "lockdown". It is noteworthy, that with...

salary of all teaching and non-teaching staff towards the Haryana Chief Minister's Relief Fund. Under the aegis of Dr. O P Bhalla Foundation, MREI has been supporting the District Administration of Faridabad through the "Ek Muthi Doodh" campaign benefiting people who have been rendered homeless because of the sudden lockdown. Behavioral and social science experts from Manav Rachna have been providing online counseling and hand-holding sessions. To keep motivation levels high, trainers and experts at the Manav Rachna Sports Science Centre have been running regular online tips for communities on physical health, yoga and meditation. On this day and forever, Manav Rachna family bows down with gratitude to the man who imbued in us the spirit of emerging stronger in...

"Learning does not stop" during the COVID-19 crisis: Manav Rachna University

Wignadheya Mondal
Content Curator

in
Updated On: September 18th, 2020

As India reported its first Corona positive case, the government began to issue directives for states to ensure people are safeguarded. The Ministry of Education advised necessary measures so that the virus does not spread.

Manav Rachna International Institute of Research & Studies [MRIIRS] and Manav Rachna University [MRU] underwent immediate changes in teaching, research and other administrative plans in the face of COVID-19 lockdown.



Annexure 4.1

Research Publications in Journals

S.No	Department	Faculty Name	Paper Title	Authors	Journal Name	Details of Publication	Publication Month	Year
1	CST	Shailja Gupta Manpreet Kaur & Sachin Lakra	Performance Evaluation of Supervised Learning Algorithm on Hate Speech Detection	Shailja Gupta, Manpreet Kaur, Sachin Lakra, Yogesh Dixit	Journal of Advanced Research and Control Systems	Vol. 12, 07 pp. 2953-2960, June 2020	June	2020
2	CST	Shailja Gupta, Manpreet Kaur & Sachin Lakra	A comparative theoretical and empirical analysis of machine learning algorithms	Gupta S., Kaur M., Lakra S., Dixit Y.	Webology	Vol. no.-17, Issue-1, Pg. no.377-397	June	2020
3	CST	Shailja Gupta, Sachin Lakra	Sentiment Analysis: A Framework for TextMining	Shailja Gupta, Sachin Lakra	Test Engineering and Management	83, pp.131 17-13129, 2020	May-June	2020
4	CST	Riya Sapra, Parneeta Dhaliwal	Missing Chain: A Novel Blockchain System for Missing or Found Cases	Riya Sapra, Parneeta Dhaliwal	Test Engineering and Management	83, May-June 2020, pp.126 70-12677, 2020	June	2020
5	Law	S.K. Bose	European and Indian Legal Education-A Comparative Study	SK Bose (single author)	International Journal of Humanities & Management Studies	Vol. 6, No.5, 2020	May	2020
6	Law	Dr SK Bose	The Intersectionality of Literature Law Culture and Society	SK Bose (single author)	International Journal of Arts, Humanities & Management Studies	Vol. 6, Issue-11 November, 2020	November	2020

7	Law	S.K. Bose	Law & Federalism-In the Grip of Politics	SK Bose (single author)	White & Black Legal International Journal	Vol. 2, Issue-2, June 2020	June	2020
8	Education and Humanities	Rashee Singh	Ethical Dilemmas of a Teacher	Rashee Singh, Sheena Sabharwal	Pramana Research Journal	Vol. 10, Issue 6, June 2020	June	2020
9	Law	Ajay Bhatia	Determinants of College Teachers' happiness- A Comprehensive Review	Ajay Bhatia & Farhat Mohsin	Journal of Critical Reviews	Vol. 7, Issue 9, 2020	May	2020
10	Law	Ajay Bhatia	Measuring Happiness of University Teachers during Challenging Times	Ajay Bhatia, Dr. Farhat Mohsin	International Journal of Advanced Science and Technology	Vol. 29, No. 10S, (2020), pp. 7805-7817	June	2020
11	Management & Commerce	Animesh Singh	Green Consumer: Study of Demographic and Psychographic Behavioural Segments	Samriti Mahajan, Rajat Gera, Animesh Singh	Journal of Critical Reviews	Vol. 7, Issue 18, 2020. pp. 582-588	June	2020
12	Physics	Haider Abbas	Capacity of C ₄ H ₈ Ti ₄ cluster for adsorption of CO ₂ and CO: a computational study	Ankur Chahal, Haider Abbas	Journal of Molecular Modelling	26:126, 2020	MAY	2020
13	Mathematics	L. Govindarao	A fourth-order numerical scheme for singularly perturbed delay parabolic problem arising in population dynamics	L. Govindarao	Journal of Applied Mathematics and Computing	63, pages 171-195	January	2020

14	Mathematics	Ruchi Gupta	A new extension of Kannan contractions and related fixed point results	Rakesh Batra, Ruchi Gupta & Priyanka Sahni	The Journal of Analysis,	Vol.28(2), May 2020	May	2020
15	Mathematics	Dinesh Tripathi	A note on Eneström–Kakeya theorem for a polynomial with quaternionic variable	Dinesh Tripathi	Arabian Journal of Mathematics	Vol. 10, 1-8, May 2020	May	2020
16	ECE	Niharika Thakur	Advanced hybrid intelligent model and algorithm for de-regulated electricity market	Hooda, M., Awasthi, Y., Thakur, N. and Siddiqui, A.	Australian Journal of Electrical and Electronics Engineering	36-46, 27 Apr 2020	April	2020
17	CST	Parneeta Dhaliwal	An approach for Concept Drifting Streams: Early Dynamic Weighted Majority	Parneeta Dhaliwal, Ajay Kumar, Poonam Chaudhary	Procedia Computer Science	Vol. 167, pp. 2653-2661, 2020	April	2020
18	Law	Som Dutt Bhardwaj	Big Data and Network Effect of Facebook: Critical Analysis of Indian and German Competition Commission	Som Dutt Bhardwaj	Test Engineering & Management	Jan-Feb 2020/ 24 Feb. 2020	February	2020
19	Chemistry	A. Jayamani	Colorimetric and fluorescence sensing of Zn ²⁺ ion and its bio-imaging applications based on macrocyclic “tet a” derivative	M. Sethupathi, A. Jayamani, G. Muthusankar, P. Sakthivel, K. Sekar, S. Gandhi, N. Sengottuvan, G.	Journal of Photochemistry and Photobiology B: Biology	Vol. 207, 111854	June	2020

				Gopu, C. Selvaraju				
20	Chemistry	Pradeep K. Varshney	Current trends and future perspectives in the recycling of spent lead acid batteries in India	Pradeep K. Varshney	Materials Today Proceedings	Vol. 26, Part 2, 2020, Pages 592-602	January	2020
21	CST	M.Thurai Pandian	Design, analysis and characterization of four port multiple-input-multiple-output UWB-X band antenna with band rejection ability for wireless network applications	V Dhasarathan, TK Nguyen, M Sharma, SK Patel, SK Mittal, MT Pandian	Wireless Network	https://link.springer.com/article/10.1007/s11276-020-02343-x	April	2020
22	Physics	Sandeep Kumar	Effect of a tightly focused chirped Gaussian laser pulse on electron acceleration in helical undulator	Sandeep Kumar, D. N. Gupta, H. K. Malik, Devi Singh, Jaeyu Lee, and Moohyun Yoon	Physics of Plasmas	Vol. 27, Issue 4	April	2020
23	Law	Ashima Saxena	Environmental Accounting Practices in India	Ashima Saxena	International Journal of Science and Research	Vol. 9, Issue 2, February 2020	February	2020
24	Physics	Sandeep Kumar	Equations: Linear Algebra	Hitendra K. Malik, Rashmi Srivastava, Sandeep Kumar & Devi Singh	Advance and Innovative Research	Vol. 14, NO. 1, 417–422, 2020	March	2020

25	CST	Mrinal Pandey & Monika Goyal	Extreme Gradient Boosting Algorithm for Energy Optimization in buildings pertaining to HVAC plants	Monika Goyal, Mrinal Pandey	EAI Endorsed Transactions on Energy Web	http://dx.doi.org/10.4108/eai.13-7-2018.164562	May	2020
26	Mechanical	I.K. Bhat	Factors influencing mechanical and wear performance of dental composite: A review	S.R. Kumar A. Patnaik I.K. Bhat	Materials Science & Engineering Technology	https://doi.org/10.1002/mawe.201900029	January	2020
27	Mathematics & CST	Ruchi Gupta & Hardeo K. Thakur	Future Population and Literacy Rate Projection in India	Ruchi Gupta, Hardeo Kumar Thakur, Chhavi Baliyan, Mansi Mangla	Test Engineering and Management	Vol. 83, Page no. 10128-10138 May/June, 2020	May	2020
28	Law	S.K. Bose	Gender Sex Progressive Society and Justice	S.K. Bose	International Journal of Arts, Humanities and Management Studies	Vol.6, Number 2, 2/1/2020	February	2020
29	Management	Priyanka Srivastava	Impact of artificial intelligence in customer satisfaction for banking industries	Teena Hassija, Dr. Priyanka Srivastava	International Journal of Advanced Science and Technology	Vol. 29 No. 9s (2020)	May	2020
30	PHYSICS	Aditya Sharma	Influence of high energy ion irradiation on structural, morphological and optical properties of high-k dielectric hafnium oxide (HfO ₂) thin films grown by atomic layer	Rajesh Kumar, Vishnu Chauhan, N. Koratkar, Shalendra Kumar, Aditya Sharma, Keun-Hwa Chae, Sung Ok Won	Journal of Alloys and Compounds	Vol. 831 page-154698 - 154713	March	2020

			deposition					
31	CST	Jyoti Pruthi	Machine learning based aspect level sentiment analysis for Amazon products	Neha Nandal, Jyoti Pruthi	Spatial Information Research	28, pages 601–607(2020)	February	2020
32	Management	Rajat Gera	Mobile app usage and adoption: A literature review	Gera, R., Chadha, P., Ahuja, V.	International Journal of Electronic Business	https://doi.org/10.1504/IJEB.2020.106546	April	2020
33	CST	Hardeo Kumar Thakur	Multi-class Instance incremental Framework for classification in fully Dynamic Graphs	Hardeo Kumar Thakur	International Journal of Computational Science and Engineering	Vol. 21, No. 1, pp. 69-83	January	2020
34	Physics	Aditya Sharma	Nano-structured phases of gallium oxide (GaOOH, α -Ga ₂ O ₃ , β -Ga ₂ O ₃ , γ -Ga ₂ O ₃ , δ -Ga ₂ O ₃ , and ϵ -Ga ₂ O ₃): fabrication, structural, and electronic structure investigations	Aditya Sharma	International Nano Letters	10 Pages, 1-9, year 2020,	February	2020
35	Law	S.K. Bose	Nationalism, Global Politics and International Relations	S.K. Bose	International Journal of Arts, Humanities and Management studies	Vol. 6, Number 2, 2/1/2020	February	2020

36	Law	S.K. Bose	Rhetoric-The Art of Persuasion, legal professional Lawyees	S.K.Bose	Journal of Emerging Technologies and Innovative Research	Vol. 7, Issue 4, April 2020	April	2020
37	Mathematics	Ruchi Gupta	Some results related to fixed points of F-G contractions on metric spaces equipped with w-distance	Rakesh Batra, Ruchi Gupta & Priyanka Sahni	Journal of Interdisciplinary Mathematics	23:2,413-423, May 2020	MAY	2020
38	Mathematics	Y. K Sharma	Study of Stability and Solution of a system of Ordinary differential	Y.K Sharma, Sachin, Deepak Kumar	International Journal of Advance & Innovative Research	Vol.7, Issue-1(XVIII), Page no. 320-323	March	2020
39	Chemistry, Mathematics	Arpit Sand, Aparna Vyas	Superabsorbent polymer based on guar gum-graft-acrylamide: synthesis and characterization	Arpit Sand, Aparna Vyas	Journal of polymer research, Springer	Vol. 27, 2020	January	2020
40	Education & Humanities	Chhavi Kulshreshtha	Walt Whitman: The shaping of his la mente	Chhavi Kulshreshtha	International Journal of Research and Analytical Reviews	Vol. 7, Issue 2, May 2020	May	2020
41	Physics	Sandeep Kumar	Small amplitude dust acoustic solitary wave in magnetized two ion temperature plasma	Hitendra K. Malik, Rashmi Srivastava, Sandeep Kumar & Devi Singh	Journal of Taibah university for Science	Vol. 14, NO. 1, 417-422, 2020	March	2020
42	Management	Rajat Gera	On comparing the performances of MLP and RBFN on sales forecasting problem	Tiwari R., Kumar R., Gera R., Srivastava S.	International Journal of Information Technology	https://www.scopus.com/inward/record.uri?eid=2-s2.0-850917	November	2019

						39050&doi=10.1007%2fs41870-019-00402-x&partnerID=40&md5=bd1707d65b95921ba88aa56b359cc0c1		
43	CST	Suraj Makkar	A Face Detection Using Support Vector Machine: Challenging Issues, Recent Trend, Solutions and Proposed Framework	Makkar, S., Sharma, L.	Communications in Computer and Information Science	Issue 1046, Pg. no. 3-12	July	2019
44	Chemistry	Vinayak V Pathak	Algal-based biofuel generation through flue gas and wastewater utilization: a sustainable prospective approach	Richa Kothari, Shamshad Ahmad, Vinayak V. Pathak, Arya Pandey, Ashwani Kumar, Raju Shankarayan, Paul N. Black & V. V. Tyagi	Biomass Conversion and Biorefinery	https://doi.org/10.1007/s13399-019-00533-y	December	2019
45	CST	Jyoti Pruthi	An improved approach for aspect level sentiment analysis using bipolar words extraction	Nandal, N., Pruthi, J., Choudhury, A.	International Journal of Advanced Science and Technology	Vol. 28 No. 13 (2019)	November	2019
46	CST	Aarti Sangwan	An Organ Criticality and Session Preserved iM-SIMPLE Protocol to	Aarti Sangwan	International Journal of Advanced Science and Technology	Vol 129, PP. 11-28, 2019	August	2019

			Optimize WBAN for Different Application Areas					
47	Chemistry	Meena Kapahi	Bioremediation Options for Heavy Metal Pollution	Meena Kapahi, Dr. Sarita Sachdeva	Journal of Health and Pollution (published by Pure Earth (formerly Blacksmith Institute))	7(15), 2017, 1-7	December	2019
48	Law	Som Dutt Bhardwaj	Competition advocacy: an unused tool in India	Dr. Som Dutt Bhardwaj, Dr Archana Sehrawat	Journal of the Gujarat Research Society	Vol. 22, Issue-14, December-2019	December	2019
49	Management	Sachita Yadav	Contemporary Financial Risk Management Strategies for Emerging Startups in India	Sachita Yadav & Akash	International Journal of Advance & Innovative Research	Vol. 6, Issue 1, pg. 61-67, March 2019	March	2019
50	Physics	Aditya Sharma	Copper-Halide Polymer Nanowires as Versatile Supports for Single-Atom Catalysts	Min-Seok Kim Haedong Park Sung Ok Won Aditya Sharma Jimin Kong Hyun S. Park Yun-Mo Sung Tae Joon Park Myoung-Woon Moon Kahyun Hur	Small	Vol.-15, Issue-40 October 1, 2019	October	2019
51	Law	Versha Vahini	Corporate Social Responsibility : Privatization of welfare state	Versha Vahini	Vivekananda Journal of Research	Vol. 8 Issue 2	December	2019

52	Physics	Haider Abbas	Density functional study of spectroscopy, electronic structure, linear and nonlinear optical properties of L-proline lithium chloride and L-proline lithium bromide monohydrate: For laser applications	Haider Abbas a, Mohd. Shkir b,* , S. AlFaify	Arabian Journal of Chemistry	Vol. 12 Issue 8, December 2019, Pages 2336-2346	December	2019
53	Mechanical	Joginder Singh, M.R. Tyagi	Design, Analysis and Manufacturing of Front Sprocket of a Bicycle using Carbon Fiber Reinforced Plastics	Singh, J., Tyagi, M.R., Singh, G., Sharma, R.D.	Journal of Physics: Conference Series	Vol. 1240, Issue-1, Art no.- 12071	August	2019
54	ECE	Yogita Khanna, Yogendra Kumar Awasthi	Dual-Band Microwave Sensor for Investigation of Liquid Impurity Concentration Using a Metamaterial Complementary Split-Ring Resonator	Khanna, Y., Awasthi, Y.K.	Journal of Electronic Materials	49, pages 385–394	November	2019
55	Physics	Sandeep Kumar	Erratum: Isolated terawatt attosecond hard X-ray pulse generated from single current spike	C.H. Shim, Sandeep Kumar, Y.W. Park, In Soo Ko, and D.E. Kim	Scientific Reports (Nature)	Vol. 9, 8521, 2019	July	2019
56	Chemistry	A. Jayamani	Ethylene oligomerization reactions catalyzed by homogeneous	A. Jayamani, G.S. Nyamato, S.O.	Journal of Organometallic Chemistry	10/2019; 903: 120987	October	2019

			and silica immobilized N ^o Fe(II) and Co(II) complexes	Ojwach				
57	CST	Nikita Taneja & Hardeo Kumar Thakur	Evaluation of Collaborative Filtering and Knowledge Transfer Based Cross Domain Recommendation Models	Nikita Taneja, Hardeo K thakur	Jour of Adv Research in Dynamical & Control Systems,	Vol. 11, 10-Special Issue, 2019	December	2019
58	ECE	Shruti Vashist	Evaluation of Non-Orthogonal Techniques for Advance Wireless System	Dipa Kokane, Ge eta Nijhawan and Shruti Vashist	International Journal of Recent Technology and Engineering (IJRTE)	8(2), Issue 2, July 2019	July	2019
59	Mechanical	Joginder Singh	Evaluation Of Tensile Properties Of Hot Rolled Carbon Steel Using Finite Element Analysis	Joginder Singh, M. R. Tyagi, Abdul Ahad, Abhinav Chawla, Dinesh Kashyap, Vinay Prabhakar	Advances in Engineering Design	pp 395-403, April 2019	April	2019
60	Chemistry	Vinayak V Pathak	Fuel Quality Index: A Novel Experimental Evaluation Tool for Biodiesel Prepared from Waste Cooking Oil	S Ahmad, R Kothari, VV Pathak, MK Pandey	Waste and Biomass Valorization	Vol. 10, Issue 8, pp 2237–2247, August 2019	August	2019
61	Physics	Sandeep Kumar	Longitudinal phase space dynamics of witness bunch during the Trojan Horse injection for plasma-based particle accelerators	K. Moon, Sandeep Kumar, M. Hur, and M. Chung	Physics of Plasma	Vol. 26, Issue 7, id.073103, July 2019	July	2019

62	Mathematics	L. Govindarao	Numerical analysis and simulation of delay parabolic partial differential equation involving a small parameter	L. Govindarao and J. Mohapatra	Engineering Computations	37(1), 289-312, (2019)	August	2019
63	Mathematics	Dinesh Tripathi	On Location of the Zeros of Polynomial (Lacunary Type)	D. Tripathi, H.G. Hyun, S. Hans	Journal-Non-Linear Functional Analysis and Application	24(3), 555-564	August	2019
64	Education	Akhilesh Kumar Dwivedi	Partition and Violence: Shifting Intercommunal Relations in Chaman Nahal's Azadi	Akhilesh Kumar Dwivedi	The Criterion: An International Journal in English 8.2	Vol. 10, Issue 6	December	2019
65	Mathematics	Y.K Sharma	Prevalence of Diabetes Mellitus in two Vicinal Nations	Richa Gupta, Deepak Kumar, Bhawna Mehta, Y K Sharma	International Journal of Innovative Technology and Exploring Engineering (IJITEE)	Vol.-9-Issue-2, November 2019	November	2019
66	CST	Narender	Role of Swarm Intelligence based Algorithms and their applications in Software Reliability Optimization	Narender, Sona Malhotra	International Journal of Recent Technology and Engineering (IJRTE 2019)	Vol. 8, Issue 2	July	2019
67	Physics	Aditya Sharma & Jai Prakash	Structural and electronic structure investigations on sonication based synthesized Graphene oxide and reduced-Graphene oxide nano-	Aditya Sharma, Jai Parkash, Shiv Kumar, K.H. Chae, S.O. Won,	Physica Scripta	Vol. 94, Number 12	September	2019

			sheets					
68	CST	Manpreet Kaur	Text Summarisation Using Laplacian Centrality-Based Minimum Vertex Cover	Anand Gupta and Manpreet Kaur	Journal of Information and Knowledge Management	Vol.-18, Issue-4, December 2019	December	2019
69	Education	Malini	The Narratives of Patriarchal Resistance: Ismat Chughtai's Short Stories	Malini	Pramana (International Refereed)	Vol. 8, Issue 31, Pages 640-643	October	2019
70	Law	Som Dutt Bhardwaj	The scope and ambit of amendment of the constitution: A comparative study of the constitutions of India, USA and Switzerland.	Dr. Som Dutt Bhardwaj, Ms Divya Kathuria	Think India Journal	Vol. 21 Issue 14, December 2019	December	2019

MANAV RACHNA UNIVERSITY

Research Publications in Conferences

S. No	Department	Faculty Name	Paper Title	Authors	Conference Details	Year of Publication	ISSN / ISBN
1	Mechanical	Joginder Singh	Variation of Shear Properties in Carbon Fiber Composites as Extensional Forces Applied with Different Fiber Orientation	Joginder Singh & M.R.Tyagi	International Conference on Mechanical and Energy Technologies (ICMET-2019)	Nov-19	2190-3026
2	CST	Hardeo Kumar Thakur	Survey of various AI ChatBots based on Technology Used	Sidhant Singh and Hardeo Kumar Thakur	Published in IEEE 2020 8th International Conference on Reliability, Infocom Technologies and Optimization (Trends and Future Directions) (ICRITO)	Jun-20	978-1-7281-7016-9
3	Chemistry	Priti Gupta	Efficacy of natural adsorbents for treatment of industrial waste water contaminated with iron and lead	Deepanshu, Aanchal Gupta, Priti Gupta	2nd International Conference on Scientific Research	2020	978-625-7898-23-2
4	Management	Animesh Singh	Effect of Human Resource Development Climate Practices on Employee Service Behaviour: An Empirical Investigation	Animesh Singh	Business Strategy in the VUCA World	Mar-20	NA

5	Management	Animesh Singh	Predictors Patron's of Green Food Product Purchase Behaviour	Samriti Mahajan, Dr. Rajat Gera, Dr. Animesh Singh	International Conference on Contemporary Issues in Management	Jun-20	NA
6	CST	Manpreet Kaur	When Cartoon Meets Anime Distinguishing Animation Styles with Convolutional Neural Networks	Kaur M., Prakash V., Raghav S.	Proceedings of International Conference on Intelligent Engineering and Management (Online), ICIEM 2020	Jun-20	978-1-7281-4097-1 978-1-7281-4098-8
7	Management	Raman Tiwari	Investigation of Artificial Intelligence Techniques in Finance and Marketing	Tiwari R., Srivastava S., Gera R.		Jun-20	1735-188X
8	CST	Hardeo Kumar Thakur	Survey of various AI ChatBots based on Technology Used	Sidhant Singh and Hardeo Kumar Thakur	Published in IEEE 2020 8th International Conference on Reliability, Infocom Technologies and Optimization (Trends and Future Directions) (ICRITO)	Jun-20	978-1-7281-7016-9
9	ECE	Yogita Khanna	Wideband Ultra-thin Metamaterial Absorber for Ku & K- Band Applications	Yogita Khanna, Yogendra Kumar Awasthi	SPIN 2020	Feb-20	0367-0371
10	CST	Mamta Arora & Mrinal Pandey	Sentiment Analysis for Predicting the Popularity of Web Series.	Garg P.K., Pandey M., Arora M.	International Conference on Recent Developments in Science, Engineering and Technology REDSET 2019	Nov-19	978-981-15-5830-6

11	ECE	Yogita Khanna	Wideband Ultra-thin Metamaterial Absorber for Ku & K- Band Applications	Yogita Khanna, Yogendra Kumar Awasthi	SPIN 2020	Feb-20	978-1-7281-5475-6
12	CST	Susmita Ray	An Analysis of Computational Complexity and Accuracy of two Supervised Machine Learning Algorithms – K-Nearest Neighbor And Support Vector Machine	Susmita Ray	International Conference on Data Management , Analytics and Innovation 2020, ICDMAI 2020	Jan-20	NA
13	CST	Susmita Ray	A Survey on Application of Machine Learning Algorithms in Cancer Prediction and Prognosis	Deepti, Susmita Ray	ICDMAI 2020 (International Conference on Data Management , Analytics and Innovation 2020)	Jan-20	NA
14	Mechanical	Joginder Singh	Variation of Shear Properties in Carbon Fiber Composites as Extensional Forces Applied with Different Fiber Orientation	Joginder Singh M.R.Tyagi	International Conference on Mechanical and Energy Technologies (ICMET-2019)	Nov-19	2190-3026
15	Chemistry	Pradeep K. Varshney	Current Trends in the recycling of Spent Lead Acid Batteries in India	Pradeep K. Varshney, Kalpna Varshney, Kajal Gautam, Meghna Chaudhary, Monika Tanwar	3rd International Conference on Science & Engineering of Materials	Jul-19	NA
16	CST	Ram Chatterjee & Hardeo Kumar Thakur	Hoax and Faux of Information Credibility in Social Networks: Explored, Exemplified and Experimented	Ram Chatterjee , Hardeo Kumar Thakur, Ridhi Sethi and Abhishek	Soft Computing: Theories and Applications (SoCTA 2019)	Dec-19	978-981-15-4031-8

				Pandey			
17	Mechanical	Joginder Singh	Variation of Shear Properties in Carbon Fiber Composites as Extensional Forces Applied with Different Fiber Orientation	Joginder Singh, M.R.Tyagi	International Conference of Mechanical and Energy Technologies (ICMET-2019)	Nov-19	978-981-15-2646-6
18	CST	Nikita taneja & Hardeo Kumar Thakur	Handling Sparsity in Cross-Domain Recommendation Systems: Review	Nikita taneja & Hardeo Kumar Thakur	Micro-Electronics and Telecommunication Engineering, Proceedings of 3rd ICMETE 2019	Aug-19	978-981-15-2329-8
19	CST	Neelu Chaudhary & Hardeo Kumar Thakur	Parametric Classification of Dynamic Community Detection Techniques	Neelu Chaudhary & Hardeo Kumar Thakur	Micro-Electronics and Telecommunication Engineering, Proceedings of 3rd ICMETE 2019	Aug-19	978-981-15-2329-8
20	CST	Goyal M., Pandey Mrinal	Towards Prediction of Energy Consumption of HVAC Plants Using Machine Learning	Goyal M., Pandey Mrinal	International Conference on Recent Developments in Science, Engineering and Technology REDSET 2019	Nov-19	978-981-15-5826-9
21	CST	Urmila Pilania, Prinima Gupta	Analysis and Implementation of IWT-SVD Scheme for Video Steganography	Urmila Pilania & Prinima Gupta	Micro-Electronics and Telecommunication Engineering, Proceedings of 3rd ICMETE 2019	Aug-19	978-981-15-2329-8

22	ECE	Niharika Thakur	Congestion Reduction under IPFC based deregulated electricity market using AKH algorithm	Niharika Thakur, Y.K Awasthi, Manisha Hooda, A.S Siddiqui	FEST 2019 - Future of Engineering Systems and Technologies 2019.	Dec-19	1478/012027
23	ECE	Niharika Thakur	Profit based Unit Commitment Problem solving using Hybrid CUCKOO- GWO Algorithm	Niharika Thakur, Y.K Awasthi, Manisha Hooda, A.S Siddiqui	FEST 2019 - Future of Engineering Systems and Technologies 2019.	Dec-19	1478/012027
24	ECE	Meenakshi Gupta	Design and Simulate the Modified Circuits of Switched Capacitor Filter using mentor graphics tool	Meenakshi Gupta, V.K Sharma	3rd International Conference on Recent Developments in Control, Automation and Power Engineering, RDCAPE 2019	Oct-19	978-1-7281-2068-3
25	ECE	Niharika Thakur	Parametric Analysis of Adaptive Whale Optimization Technique for Power Quality Enhancement in Restructured Electricity Market.	Niharika Thakur, Y.K Awasthi, Manisha Hooda, A.S Siddiqui	2019 IEEE 2nd International Conference on " Power Energy, Environment and Intelligent Control"	Oct-19	978-1-7281-1793-5
26	ECE	Niharika Thakur	Algorithmic Analysis on Hybrid-Intelligent Deregulated Electricity Market.	Niharika Thakur, Y.K Awasthi, Manisha Hooda, A.S Siddiqui	2019 IEEE 2nd International Conference on " Power Energy, Environment and Intelligent Control"	Oct-19	978-1-7281-1793-5
27	CST	Sachin Lakra	Green Cloud Job Scheduling and Load Balancing using Hybrid Biogeography based Optimization and	Yashika Sharma, Sachin Lakra	International conference on Micro-Electronics and Telecommunication	Aug-19	978-981-15-2328-1

			Genetic Algorithm: A proposed approach		Engineering		
28	CST	Sachin Lakra	A Transition towards Green IT: An Initiative	Yashika Sharma, Sachin Lakra	International conference on Micro-Electronics and Telecommunication Engineering	Aug-19	978-981-15-2328-1
29	CST	Parneeta Dhaliwal	An Approach for handling concept drifting streams: Early Dynamic Weighted Majority	P.Dhaliwal, A.Kumar, P. Potalia	International Conference on Computational Intelligence and Data Science (ICCIDS-2019)	Sep-19	2653-2661
30	CST	Gaganjot Kaur, Prinima Gupta	Hybrid Approach for detecting DDOS Attacks in Software Defined Networks	Kaur, G., Gupta, P.	2019 12th International Conference on Contemporary Computing, IC3 2019	Aug-19	978-1-7281-3591-5
31	ECE	Nitika	Effect of Thermal Annealing on the Performance of PCDTBT:PC 71 BM composite solar cell	Nitika, Shiv kumar, B.M.Bahal	Green and Sustainable Chemistry Conference 2019	Nov-19	NA
32	Education	Geeta Thakur	Let's make the Augmented Reality the 'Reality'	Geeta Thakur	National seminar on Designing the 21st century Classroom	2019	978-93-82626-46-6

Annexure 4.3

MANAV RACHNA UNIVERSITY

Patents Details (Filed/ Published / Granted)

S. No	Name of Faculty	Department	University	Title of the Patent	Name of All Inventors in sequence	Inventors with MRU/ MRIIRS affiliation / others	Date of Filing Patent (dd/mm/yyyy)	Patent Application Filing Number	Patent Details (Published / Filed / Granted)
1	Shaveta Bhatia, Shiv Shankar Rai	FCA	MRIIRS and MRU	Handheld Self Examine Brest Cancer	Shaveta Bhatia, Shiv Shankar Rai	Both	21/08/2019	201911033647	Filed
2	Yogita Khanna	ECE	MRU	Microwave Sensing Device for Dielectric Characterization of Materials	Yogita Khanna, Y K Awasthi, Anshuman Gupta	MRU	01/08/2019	201911031072 (TEMP/E-1/32827/2019-DEL)	Filed
3	Prem K.Patnala	Chemistry	MRU	Production of Clean Water From Clay Mud Pot Filters	Prem Kishore Patnala	MRU	22/7/2019	2.01911E+11	Filed

Annexure 4.4

Manav Rachna University, Faridabad

Books /Chapters /Monograph/Case Study authored by faculty members						
S.No.	Name of faculty Members	Department Name	Type of publication 1. Book 2. Chapter 3. Monograph 4. Case study	Name of the Book / Chapter / Monograph	ISBN Number	Year of publication (yyyy)
1	Versha Vahini	Law	Book	Text book on Competition Law	978-93-8999-128-4	Jan-20
2	Arpit Sand	Chemistry	Book (Edited)	Organic Polymers	978-1-78984-618-8	Mar-20
3	Arpit Sand Aparna Vyas	Chemistry Mathematics	Book Chapter	Organic Polymer - Graft Copolymers	978-1-78984-618-8	Mar-20
4	Rashee Singh	Education and Humanities	Book Chapter	Concept and Ethical issues in counselling	978-81-945153-4-0	May-20
5	Aditya Sharma	Physics	Book Chapter	Bottom-Up and Top-Down Approaches for MgO	978-1-83880-1-002-4	Feb-20
6	Jyoti Pruthi	CST	Book Chapter	Data Visualization Techniques: Traditional Data to Big Data	978-981-15-2282-6	Mar-20
7	Hanu Bhardwaj	CST	Book Chapter	Business Indicators for Data Warehouse Requirement Engineering	9781799829751	Jan-20
8	Versha Vahini	Law	Book	Textbook on Indian Competition Law	978-93-8999-128-4	Jan-20

9	Shiv Kumar	Physics	Book Chapter	Effect of thermal stress on power conversion efficiency of PCDTBT: PGIBM Organic Solar Cells, The Physics of Semiconductor devices	978-3-319-97604-4	8th Nov 2019
10	Versha Vahini	Law	Book Chapter	Triple Talak - Judgment, Legislation and Beyond in book Dispelling Rhetorics: Law of Divorce and Gender inequality in Islam, Indian Law Institute, New Delhi	978-81-927926-7-5	Jul-19
11	Parneeta Dhaliwal Riya Sapra	CST	Book Chapter	Blockchain for security issues of Internet of Things (IoT)	9783030335953	14th Nov 2019

Annexure 4.5

MANAV RACHNA UNIVERSITY

Seminar/ Conference/ Workshop organised

S.No.	Department Name	Type of Event 1. Seminar 2. Workshop 3. Conference 4. Colloqium 5. Symposium 6. Fair / Exhibition	Title of the Event	Level (National / International)	Venue	Duration	Date(s) (dd/mm/yyyy)		Year
						No. of Day (s)	From	To	
1	CST	Seminar	Xebia Specialization Course : Unsupervised Learning & Neural Network	University	Online-MS Team	1	30.06.2020	30.06.2020	2020
2	Education & Humanities	Workshop	Research Methodology	National	ZOOM	2	27.06.2020	28.06.2020	2020
3	CST	Workshop	FDP on Devops and Test Automation organized by CST, dept. MRU in association with Xebia	University	Online-MS Team	5	25.06.2020	30.06.2020	2020

4	Management	Webinar	Participation in E quiz Vocal for Local: The Self Reliance Mantra	University	MRU E Cell	1	25.06.2020	25.06.2020	2020
5	CST	Workshop	FDP on Advance Nerual Network organized by CST, dept. MRU in association with Xebia	University	Online-MS Team	3	22.06.2020	24.06.2020	2020
6	Management	Webinar	Family Buisness strategy week 2020	University	MRU	4	15.06.2020	19.06.2020	2020
7	Mechanical	Webinar	UG-NX Mold Wizard	University	MRU Campus	1	06.06.2020	06.06.2020	2020
8	Management	Webinar	E-Week "संRachna" celebration	University	MRU	5	01.06.2020	05.06.2020	2020
9	Management	Webinar	Two Day Mentor Development programme was organized	University	MRU E Cell and BYST Faridabad	2	29.05.2020	30.05.2020	2020
10	Mechanical	Webinar	Calculation of Heating and cooling load by using Psychromatic Chart	Others	MRU	1	25.05.2020	25.05.2020	2020
11	ECE	Workshop	Logic design using CMOS logic & Familiarization	Others	Online	1	23.05.2020	23.05.2020	2020

			with Tanner EDA tool						
12	CST	Seminar	Mind & Meditation	University	Online	1	20.05.2020	20.05.2020	2020
13	CST	Seminar	Future of Jobs in the Financial & Technology Sectors during Covid-19 Times	University	Online	1	18.05.2020	18.05.2020	2020
14	CST	Workshop	Virtual Lab Faculty Training Program	University	Online	1	16.05.2020	16.05.2020	2020
15	CST	Seminar	Board of Studies	University	Online	1	15.05.2020	15.05.2020	2020
16	CST	Workshop	AWS Educate Second Webinar in Series Cloud Degree Faculty Professional Development	University	Online	1	13.05.2020	13.05.2020	2020
17	CPS	Training	Essentials of Online learning	University	MRU Campus	2 Weeks	11.05.2020	22.05.2020	2020
18	CST	Seminar	Interactive Session by CRC BTech Pre-Final Year students Placement Process	University	Online	1	08.05.2020	08.05.2020	2020
19	CST	Seminar	Interaction with CSE Alumnus - Mr Aj	University	Online	1	07.05.2020	07.05.2020	2020

			Gauravdeep (BTech CSE 2005-09 Batch)						
20	CPS	Training	Enhancing online learning experience	University	MRU Campus	4 Weeks	09.04.2020	05.05.2020	2020
21	CST	Competition	2-D Art Competition on the theme "Relive the Creators"	National	Online	1	30.04.2020	30.04.2020	2020
22	CST	Workshop	AWS Educate Cloud Degree Faculty Professional Development Orientation	University	Online	1	24.04.2020	24.04.2020	2020
23	Management	Webinar	Online Group discussion organized for all students of Manav Rachna Tomorrow After a Pandemic	University	MRU E Cell	1	11.04.2020	11.04.2020	2020
24	Mechanical	Webinar	Patenting	Others	MRU	1	11.04.2020	11.04.2020	2020
25	Mechanical	FDP	NBA Accreditation for Engg. Program	National	ICT Based NITTR	5	11.04.2020	15.04.2020	2020
26	CST	Seminar	Online Higher Education	University	MRU	1	12.03.2020	12.03.2020	2020
27	CST	Workshop	Matlab and Mathematics Magic	University	MRU	1	06.03.2020	06.03.2020	2020

28	Mechanical	Workshop	Computational Fluid dynamics	University	MRU Campus	2	05.03.2020	06.03.2020	2020
29	CST	Seminar	Gate Preparation	University	MRU	1	05.03.2020	05.03.2020	2020
30	Management	Workshop	Idea Pitching Session for students selected to present the business Ideas to BYST(Bhartiya Yuva Shakti Trust) for securing funding	University	MRU E Cell	1	03.03.2020	03.03.2020	2020
31	Management	Workshop	Idea Pitching Workshop for all students	University	MRU E Cell	1	27.02.2020	27.02.2020	2020
32	Management	Conference	Two Day Global Youth Conference on Entrepreneurship, Innovation and Venture development at SGT University, Gurugram.	University	Department of Management & Commerce, MRU	1	19.02.2020	20.02.2020	2020
33	CST	Seminar	Interaction with CSE Alumnus - Mr Aj Gauravdeep	University	MRU	1	17.02.2020	17.02.2020	2020
34	Mechanical	Workshop	Weight Optimization of Design by using Altair INSPiRE Software	University	MRU Campus	1	13.02.2020	13.02.2020	2020

35	CST	Workshop	Workshop on Blockchain Technology	University	MRU	1	12.02.2020	12.02.2020	2020
36	CST	Workshop	Big Data Analytics	University	MRU	5	03.02.2020	07.02.2020	2020
37	Management	Workshop	Workshop on Idea Generation	University	MRU E Cell	1	30.01.2020	30.01.2020	2020
38	Management	Workshop	Industrial Visit to a start-up Firm	University	Department of Management & Commerce, MRU	1	23.01.2020	23.01.2020	2020
39	Management	Seminar	Awareness Seminar with Buisness Idea Contest	University	MRU in association with BYST(Bhartiya Yuva Shakti Trust)	1	22.01.2020	22.01.2020	2020
40	Mathematics	Workshop	Scientific Writing using LaTeX	National	MRU	2	17.01.2020	18.01.2020	2020
41	Mechanical	Workshop	3D Printing	Others	MRU	1	15.01.2020	15.01.2020	2020
42	Management	Seminar	Session on Funding and Mentoring	University	MRU	1	23.10.2019	23.10.2019	2019
43	Management	Workshop	Entrepreneurial Meet	University	MRU	1	26.04.2019	26.04.2019	2019
44	Management	Workshop	Entrepreneurial workshop & learning session	University	MRU	1	20.03.2019	20.03.2019	2019

45	Management	Seminar	A five week long women entrepreneurship development program(WEDP) under the aegis of DST-NIMAT scheme	University	Manav Rachna -New Gen IEDC and NIMAT DST	5 Weeks	25.02.2019	27.03.2019	2019
46	Faculty of Education and Humanities	Workshop	Creating Moocs (Massive Online Open Courses)	Other	MRU	5	07.12.2019	11.12.2019	2019
47	CST	Workshop	Software Craftsmanship	National	MRU	1	18.11.2019	18.11.2019	2019
48	Chemistry	Conference	Green Initiative on sustainable chemistry (GSCC-2019)	International	MRU	2	07.11.2019	08.11.2019	2019
49	Mechanical	Workshop	Introduction to Hypermesh	National	MRU	1	02.11.2019	02.11.2019	2019
50	Mechanical	STC	Short Term Course on Advances in Manufacturing	National	MRU	5	09.09.2019	13.09.2019	2019
51	Physics	Workshop	Workshop on Raman spectroscopy	National	MRU	1	09.08.2019	09.08.2019	2019

Annexure 4.6

MANAV RACHNA UNIVERSITY						
Expert talks / Guest Lecture Organised						
S. No.	Department Name	Nature of Tal 1. Academic 2. Research 3. Innovation 4. IPR 5. Entrepreneurship 6. Others	Title of the Event	Duration	Date(s) (dd/mm/yyyy)	
				No. of Day(s)	From	To
1	Education and Humanities	Others	Science of Mind	1	27.06.2020	27.06.2020
2	Centre of Academic Development	Colloquim	Asli Chai	1	30.05.2020	30.05.2020
3	Centre for Peace and Sustainability	Webinar	Biological Disaster Management-Post covid 19	1	13.06.2020	13.06.2020
4	Centre for Peace and Sustainability	Webinar	Emotional balance in current times	1	17.06.2020	17.06.2020
5	Centre for Peace and Sustainability	Webinar	Balancing Self, Family and Profession by BK Sister Shivani	1	27.06.2020	27.06.2020
6	ECE	Academic	Artificial Intelligence for future	1	11.02.2020	11.02.2020
7	Mechanical	Academic & Research	Energy Simulation Software	1	11.02.2020	11.02.2020
8	Mechanical	Academic & Research	Introducing the students to the COVID-19 and its implications on the global market and our daily lives	1	30.04.2020	30.04.2020
9	Education	Academic	Fostering a Stress Free Environment	1	12.03.2020	12.03.2020
10	Mathematics	Others	Inner Power for Success	1	19.02.2020	19.02.2020
11	Education & Humanities	Academic	Discourse Analysis and Speech Mechanism: A Pragmatic Approach to English Language	1	06.03.2020	06.03.2020
12	Physics	Research	Two Photon	1	28.05.2020	28.05.2020

			Absorption in Bulk Semiconductors and Quantum Well Structures and its Applications			
13	Education & Humanities	Academic	Women Empowerment through Education: Exploring emerging trends	1	05.03.2020	05.03.2020
14	CST	Academic	Data Privacy Awareness Session Data Privacy Day 2020	1	31.01.2020	31.01.2020
15	MECHANICAL	Innovation	Computer Aided Engineering (CAE)	1	27.02.2020	27.02.2020
16	Mechanical	Academic	HVAC&R Future after COVID-19	1	23.05.2020	23.05.2020
17	Mechanical	Academic	Impact on Industries after COVID-19	1	30.04.2020	30.04.2020
18	Centre for Peace and Sustainability	Others	Four Pillars of Education	1	20.05.2020	20.05.2020
19	Centre for Peace and Sustainability	Others	Climate change:Threat to peace	1	29.05.2020	29.05.2020
20	Education	Innovation	Creative Teaching Tools	1	05.03.2020	05.03.2020
21	CST	Academic	Machine Learning and Supervised Learning	1	15.11.2019	15.11.2019
22	CST	Academic	Understanding Basics of Agile	1	15.11.2019	15.11.2019
23	CST	Academic	Demystifying Artificial & Machine Learning	1	15.11.2019	15.11.2019
24	CST	Academic	On account of Children's Day, for a session to enlighten our students on human value	1	16.11.2019	16.11.2019
25	Mechanical	Research	Introduction to Biofuels	1	02.10.2019	02.10.2019
26	Mathematics	Academic & Research	Optimization Algorithms	1	25.09.2019	25.09.2019
27	CST	Academic	Cracking the Technical Interview: Get that high paying job	1	25.08.2019	25.08.2019

28	Education	Academic	Aligning Learning Objectives with Bloom's Taxonomy	1	20.07.2019	20.07.2019
29	Education	Academic	Abacus	1	11.07.2019	11.07.2019
30	CST	Academic	Software Craftmanship	1	18.11.2019	18.11.2019
31	Education	Academic	Ikigai : Finding the purpose of Life	1	18.09.2019	18.09.2019
32	Education	Academic	Mindfulness	1	24.10.2019	24.10.2019

Annexure 4.7

MANAV RACHNA UNIVERSITY											
Consultancy Earned by the Department											
S. No.	Department Name	Project Title	Sponsoring Agency	Project Team		Amount Sanctioned	Month and Year of start	Current status Ongoing / Completed	Consultancy amount received		Date of final report submission
				Principal Investigator	Other investigator, if any				Date	Amount	
				Name	Name						
1	CST	Dynamic Website for Delish Homemades	Delish Homemades	Dr. Parneeta Dhaliwal	NA	12390	May, 2020	Ongoing	28.10.2020	6000	Expected to be complete by 31.3.2021
2	Mechanical	Quality tools & inspection with company policy	Talbros automotive component Ltd.	Prof. Jaideep Singh	Mr. J.P. Sharma	480000	2019	Ongoing		480000	15000/- Per Monday + Taxes * 4 per month*8 months
3	CST	Website Development for "Delish Homemades"	Delish Homemades	D. Parneeta Dhaliwal	NA	11930	2019	Ongoing	13.12.2019 24.02.2020	6000 5930	Completed on 24.02.2020
4	CST	Mobile Application Development for "The Ultimetro"	Ultimetro	D. Parneeta Dhaliwal	NA	34220	2019	Ongoing	29.12.2019	15000	discontinued due to Venture Capitalist issues and Covid-19 issues
5	CST	Panic Button for Doctor's Use	Sarvodaya Hospital	D. Parneeta Dhaliwal	Dr. Brijesh Kumar	28592	2019	Ongoing	04.01.2020	14010	Completed but testing is delayed due to Covid-19 pandemic

Annexure 4.8

MANAV RACHNA UNIVERSITY

Sponsored Research Projects

S. No.	Financial Year	Name of Faculty (Principal Investigator)	Name of the Funding Agency	Title of the Project	Sanctioned Date	Amount Sanctioned (In Rs.)
1	2019-20	Dr. Pragati Chauhan	CL Educate	Women Entrepreneurship Development	08.07.2019	150000
2	2019-20	Dr. Arpit Sand	CL Educate	Swelling properties of the polymeric materials for sanitary applications	08.07.2019	175000
3	2019-20	Ms. Yogita Khanna	CL Educate	Detection and elimination of pest in paddy fields using electromagnetic waves	08.07.2019	125500
				Total Amount (in Rs.)		450500

Annexure 4.9



MANAV RACHNA UNIVERSITY


Research Publications in Journals in collaboration with other departments and institutions

S. No.	Department	Faculty Name	Paper Title	Authors	Name and department of Authors belong to other institution other than MRU	Journal Name	Details of Publication	Year of Publication	ISSN/ ISBN
1	Mathematics	Advin Masih	Radical Screen transversal slant lightlike Submanfolds of indefinite Kaehler manifolds	Mamta Thakur, Advin & S.M.K Haider	Dr. Mamta Thakur, Deptt. of Maths. , Al-Falah University, Prof. S.M.K Haider, Deptt. of Mathematics, JMI	FILOMAT	34(6),2020, 2037-2046, Jan 2020	2020	ISSN: 2406-0933
2	Education and Humanities	Rashee Singh	Ethical Dilemmas of a Teacher	Rashee Singh, Sheena Sabharwal	Dr Sheena Sabharwal, Principal, RSGCOEd	Pramana Research Journal	Vol.10, Issue 6, June2020	2020	2249-2976
3	Law	Ajay Bhatia	Determinants of College Teachers' happiness - A Comprehensive Review	Ajay Bhatia & Farhat Mohsin	Farhat Mohsin, MRIIRS, Faridabad.	Journal of Critical Reviews	Vol. 7, Issue 9, May 2020	2020	2394-5125

4	Law	Ajay Bhatia	Measuring Happiness of University Teachers during Challenging Times	Ajay Bhatia, Dr. Farhat Mohsin	Farhat Mohsin, MRIIRS, Faridabad.	International Journal of Advanced Science and Technology	Vol.29, No. 10S, (2020), pp. 7805-7817, June 2020	2020	2005-4238
5	Management & Commerce	Animesh Singh	Green Consumer : Study of Demographic and Psychographic Behavioural Segments	Samriti Mahajan, Rajat Gera, Animesh Singh	Dr. Rajat Gera, Management Dept., MRIIRS, Faridabad.	Journal of Critical Reviews	Vol. 7, Issue 18, 2020. pp. 582-588, June 2020	2020	2394-5125
6	Mathematics	L. Govindarao	A fourth-order numerical scheme for singularly perturbed delay parabolic problem arising in population dynamics	L. Govindarao	J. Mohapatra, NIT Rourkela	Journal of Applied Mathematics and Computing	63, pages 171–195, Jan 2020	2020	1598-5865
7	Mathematics	Ruchi Gupta	A new extension of Kannan contractions and related fixed point results	Rakesh Batra, Ruchi Gupta & Priyanka Sahni	Rakesh Batra, Delhi University	The Journal of Analysis,	Vol. 28(2), May 2020	2020	2367-2501
8	ECE	Niharika Thakur	Advanced hybrid intelligent model and algorithm for de-regulated electricity market	Hooda, M., Awasthi, Y., Thakur, N. and Siddiqui, A.	Y.K. Awasthi, FET, MRIIRS A.S. Siddiqui, Jamia Millia Islamia	Australian Journal of Electrical and Electronics Engineering	36-46, 27 Apr 2020	2020	1448-837X

						ering			
9	CST	Parneeta Dhaliwal	An approach for Concept Drifting Streams: Early Dynamic Weighted Majority	Parneeta Dhaliwal, Ajay Kumar, Poonam Chaudhary	Ajay Kumar, ME SGT University Gurugram, Poonam Chaudhary, CSE North CAP University Gurugram	Proceeding Computer Science	Vol.167, pp. 2653-2661, April 2020	2020	1877-0509
10	Law	Som Dutt Bhardwaj	Big Data and Network Effect of Facebook: Critical Analysis of Indian and German Competition Commission	Som Dutt Bhardwaj	Divya Kathuria, Research Scholar, NLU Delhi Dr Archana Sehrawat, Amity University, Gurgaon	Test Engineering & Management	Jan-Feb 2020/ 24 Feb. 2020	2020	0193-4120
11	Chemistry	Pradeep K. Varshney	Current trends and future perspectives in the recycling of spent lead acid batteries in India	Pradeep K. Varshney	Kalpna Varshney, FET, MRIIRS, Faridabad.	Materials Today Proceedings	Vol.26, Part 2, 2020, Pages 592-602	###	2214-7853

12	CST	M.Thurai Pandian	Design, analysis and characterization of four port multiple-input-multiple-output UWB-X band antenna with band rejection ability for wireless network applications	V Dhasarathan, TK Nguyen, M Sharma, SK Patel, SK Mittal, MT Pandian	Chitkara University, Marwadi University	Wireless Network	https://link.springer.com/article/10.1007/s11276-020-02343-x	###		1572-
13	Physics	Sandeep Kumar	Equations: Linear Algebra	Hitendra K. Malik, Rashmi Srivastava, Sandeep Kumar & Devi Singh	H. K. Malik, Department of Physics, Indian Institute of Technology, New Delhi, Hauzkhass 110016, India Devi Singh, FET, MRIIRS, Faridabad 121004, Haryana, India	Advanced and Innovative Research	Vol.14, No. 1, 417–422, 2020, March 2020	2020		1658-
14	Mechanical	I.K. Bhat	Factors influencing mechanical and wear performance of dental composite : A review	S.R. Kumar A. Patnaik I.K. Bhat	S.R. Kumar & A. Patnaik, MNIT, Jaipur	Materials Science & Engineering Technology	https://doi.org/10.1002/mawe.201900029	###		1521-4052

15	PHY SICS	Aditya Sharma	Influence of high energy ion irradiation on structural, morpholog ical and optical properties of high-k dielectric hafnium oxide (HfO ₂) thin films grown by atomic layer deposition	Rajesh Kumar, Vishnu Chauhan , N. Koratkar, Shalendr a Kumar, Aditya Sharma, Keun- Hwa Chae, Sung Ok Won	Rajesh Kumar, Vishnu Chauhan, University School of Basic and Applied Sciences, Guru Gobind Singh Indraprastha University, New Delhi, 110078, India N. Koratkar, Department of Mechanical, Aerospace and Nuclear Engineering, Rensselaer Polytechnic Institute, Troy, NY, 12180, United States Shalendra Kumar, Department of Physics, College of Science, King Faisal University, Hofuf, Al-Ahsa, 31982, Saudi Arabia Keun-Hwa Chae & Sung Ok Won, Advanced Analysis Centre, Korea Institute of Science and Technology, Seoul, 02792, South Korea	Journal of Alloys and Compo unds	Vol. 831 page- 154698 - 154713 , March 2020	2020		9258
----	-------------	------------------	---	--	--	---	--	------	---	------

16	Management	Rajat Gera	Mobile app usage and adoption: A literature review	Gera, R., Chadha, P., Ahuja, V.	Dr. Rajat Gera, Management Dept., MRIIRS, Faridabad.	International Journal of Electronic Business	https://doi.org/10.1504/IJEB.2020.106546	###	1470-6067
17	CST	Hardeo Kumar Thakur	Multi-class Instance incremental Framework for classification in fully Dynamic Graphs	Hardeo Kumar Thakur	Anand Gupta, Sreyashi Nag and Ritvik Shrivastava, NSIT Delhi	International Journal of Computational Science and Engineering	Vol. 21, No. 1, pp. 69-83, Jan 2020	2020	1742-7185
18	Physics	Aditya Sharma	Nano-structured phases of gallium oxide (GaOOH, α -Ga ₂ O ₃ , β -Ga ₂ O ₃ , γ -Ga ₂ O ₃ , δ -Ga ₂ O ₃ , and ϵ -Ga ₂ O ₃): fabrication, structural, and electronic structure investigations	Aditya Sharma	KIST, Hyun-Joon Shin Keun-Hwa Chae Sung-Ok Won	International Nano Letters	10 Pages, 1-9, year Feb 2020,	2020	2228-5326
19	Mathematics	Ruchi Gupta	Some results related to fixed points of F-G contractions on metric spaces	Rakesh Batra, Ruchi Gupta & Priyanka Sahni	Rakesh Batra, DU	Journal of Interdisciplinary Mathematics	23:2,413-423, MAY 2020	2020	0972-0502

			equipped with w-distance						
20	Mathematics	Y. K Sharma	Study of Stability and Solution of a system of Ordinary differential	Y.K Sharma, Sachin, Deepak Kumar	Deepak Kumar, FET, MRIIRS, Faridabad.	International Journal of Advance & Innovative Research	Vol. 7, Issue 1(XVIII), 320-323, March 2020	2020	2394-7780
21	Physics	Sandeep Kumar	Small amplitude dust acoustic solitary wave in magnetized two ion temperature plasma	Hitendra K. Malik, Rashmi Srivastava, Sandeep Kumar & Devi Singh	Hitendra K. Malik, IIT Delhi, Rashmi Srivastava, MRIIS, Devi Singh, MRIIS	Journal of Taibah university for Science	Vol.14, No. 1, 417-422, March 2020	2020	1658-3655
22	Management	Rajat Gera	On comparing the performances of MLP and RBFN on sales forecasting problem	Tiwari R., Kumar R., Gera R., Srivastava S.	Sanjay Srivastava, MRIIRS, Faridabad.	International Journal of Information Technology (Singapore)	https://www.scopus.com/inward/record.uri?eid=2-s2.0-85091739050&doi=10.1007%2fs41870-019-00402-x&partnerID=40&md5=bd1707d65b95921ba88aa56b359cc0c1	###	

23	Chemistry	Vinayak V Pathak	Algal-based biofuel generation through flue gas and wastewater utilization: a sustainable prospective approach	Richa Kothari, Shamshad Ahmad, Vinayak V. Pathak, Arya Pandey, Ashwani Kumar, Raju Shankarayan, Paul N. Black & V. V. Tyagi	Richa Kothari, Shamshad Ahmad, Arya Pandey, Ashwani Kumar, Raju Shankarayan, Paul N. Black & V. V. Tyagi	Biomass Conversion and Biorefinery	https://doi.org/10.1007/s13399-019-00533-y	###	2190-6815
24	CST	Jyoti Pruthi	An improved approach for aspect level sentiment analysis using bipolar words extraction	Nandal, N., Pruthi, J., Choudhury, A.	Choudhury, A, Maharaja Surajmal Institute, New Delhi, INDIA	International Journal of Advanced Science and Technology	Vol.28, No. 13 (Nov 2019)	2019	2005-4238
25	Law	Som Dutt Bhardwaj	Competition advocacy: an unused tool in India	Dr. Som Dutt Bhardwaj, Dr Archana Sehrawat	Dr Archana Sehrawat, Amity University, Gurgaon	Journal of the Gujarat Research Society	Vol-22-Issue-14-December-2019	2019	0374-8588
26	Physics	Aditya Sharma	Copper-Halide Polymer Nanowires as Versatile Supports for Single-Atom Catalysts	Min-Seok Kim Haedong Park Sung Ok Won Aditya Sharma Jimin Kong Hyun S. Park Yun-Mo	KIST	Small	Vol.15, Issue-40, October 1, 2019	2019	1613-6829

				Sung Tae Joon Park Myoung- Woon Moon Kahyun Hur					
27	Physi cs	Haider Abbas	Density functional study of spectrosc opy, electronic structure, linear and nonlinear optical properties of L- proline lithium chloride and L- proline lithium bromide monohy ate: For laser applicatio ns	Haider Abbas a, Mohd. Shkir b,* S. AlFaify	Haider Abbas a, Mohd. Shkir b,* , S. AlFaify b a Department of Physics, Manav Rachna University, Faridabad, Haryana 121001, India b Department of Physics, Faculty of Science, King Khalid University, P.O. Box 9004, Abha 61413, Saudi Arabia	Arabian Journal of Chemis try	Vol.12, Issue 8, Decem ber 2019, Pages 2336- 2346	2019	1878- 5352
28	ECE	Yogita Khanna , Yogend ra Kumar Awasthi	Dual-Band Microwav e Sensor for Investigati on of Liquid Impurity Concentra tion Using a Metamate rial Complem entary Split-Ring Resonator	Khanna, Y., Awasthi, Y.K.	Y.K. Awasthi, FET, MRIIRS	Journal of Electro nic Materia ls	49, pages3 85– 394, Nov 2019	2019	0361- 5235

29	Physics	Sandeep Kumar	Erratum: Isolated terawatt attosecond hard X-ray pulse generated from single current spike	C.H. Shim, Sandeep Kumar, Y.W. Parc, In Soo Ko, and D.E. Kim	C.H. Shim, Sandeep Kumar, Y.W. Parc, In Soo Ko, and D.E. Kim, Department of Physics, Ulsan National Institute of Science and Technology, Ulsan, South Korea	Scientific Reports (Nature)	Vol. 9, 8521, July 2019	2019	 2045-
30	ECE	Shruti Vashist	Evaluation of Non-Orthogonal Techniques for Advance Wireless System	Dipa Kokane, Geeta Nijhawan and Shruti Vashist	Geeta Nijhawan, ECE, FET, MRIIRS	International Journal of Recent Technology and Engineering (IJRTE)	8(2), Issue 2, July 2019	2019	2277-3878
31	Chemistry	Vinayak V Pathak	Fuel Quality Index: A Novel Experimental Evaluation Tool for Biodiesel Prepared from Waste Cooking Oil	S Ahmad, R Kothari, VV Pathak, MK Pandey	S Ahmad, R Kothari, VV Pathak: Department of Environmental Science, Babasaheb Bhimrao Ambedkar University (Central University) Lucknow. MK Pandey: DE Kanpur	Waste and Biomass Valorization	Vol.10, Issue 8, pp 2237–2247, August 2019	2019	 1877-
32	Physics	Sandeep Kumar	Longitudinal phase space dynamics of witness bunch during the Trojan Horse injection for	K. Moon, Sandeep Kumar, M. Hur, and M. Chung	K. Moon, M. Hur, and M. Chung, Department of Physics, UNIST Ulsan, South Korea	Physics of Plasma	Vol. 26, Issue 7, id.073103, July 2019	2019	1089-7674

			plasma-based particle accelerators						
33	Mathematics	Dinesh Tripathi	On Location of the Zeros of Polynomials (Lacunary Type)	D. Tripathi, H.G. Hyun, S. Hans	S.Hans, Amity University: H G Hyun, Kyungnam University, Korea	Journal -Non-Linear Functional Analysis and Application	24(3), 555-564, Aug 2019	2019	1229-1595
34	Mathematics	Y.K Sharma	Prevalence of Diabetes Mellitus in two Vicinal Nations	Richa Gupta, Deepak Kumar, Bhawna Mehta, Y K Sharma	Richa Gupta, Deepak Kumar, MRIIRS, Faridabad.	International Journal of Innovative Technology and Exploring Engineering (IJITEE)	Vol.9, Issue-2, November 2019	2019	2278-3075
35	CST	Narender	Role of Swarm Intelligence based Algorithms and their applications in Software Reliability Optimization	Narender, Sona Malhotra	Sona Malhotra	International Journal of Recent Technology and Engineering(IJRTE 2019)	Vol. 8, Issue 2, July 2019	2019	2277-3878

36	Physics	Aditya Sharma & Jai Prakash	Structural and electronic structure investigations on sonication based synthesized Graphene oxide and reduced-Graphene oxide nano-sheets	Aditya Sharma, Jai Parkash, Shiv Kumar, K.H. Chae, S.O. Won,	K.H. Chae, S.O. Won	Physica Scripta	Vol.94, Number 12, Sept 2019	2019	1941-4919
37	CST	Manpreet Kaur	Text Summarisation Using Laplacian Centrality-Based Minimum Vertex Cover	Anand Gupta and Manpreet Kaur	Anand Gupta, NSUT Delhi	Journal of Information and Knowledge Management	Vol.18, Issue-4, December 2019	2019	0219-6492
38	Law	Som Dutt Bhardwaj	The scope and ambit of amendment of the constitution: A comparative study of the constitutions of India, USA and Switzerland.	Dr. Som Dutt Bhardwaj, Ms Divya Kathuria	Ms Divya Kathuria, Newgen Knowledge Works Pvt Ltd, Chennai	Think India Journal	Vol. 21, Issue 14, December 2019	2019	0971-1260

Annexure 4.9 (2)

MANAV RACHNA UNIVERSITY

Research Publications in Conferences in collaboration with other departments and institutions

S.No.	Department	Faculty Name	Paper Title	Authors	Name and department of Authors belong to other institution other than MRU	Conference Details	Year of Publication	ISSN /ISBN
1	Physics	Shiv Kumar	Improved power conversion efficiency of conducting polymer solar cells via incorporation of a DNA-CTMA electron blocking interlayer	Nitika, Shiv Kumar Dixit, Chhavi Bhatnagar, B.M. Bahal, Anita Kumari, P.K. Bhatnagar	Chhavi Bhatnagar, Anita Kumari, P.K. Bhatnagar, Dept of Electronic science, University of Delhi	International Conference on Advanced Materials (ICAM-2019)	2020	978-0-7354-4006-7
2	ECE	Yogita Khanna	Wideband Ultra-thin Metamaterial Absorber for Ku & K- Band Applications	Yogita Khanna, Yogendra Kumar Awasthi	Yogendra Kumar Awasthi, ECE, FET, MRIIRS	SPIN 2020	Feb 2020	978-1-7281-5475-6
3	Chemistry	Pradeep K. Varshney	Current Trends in the recycling of Spent Lead Acid Batteries in India	Pradeep K. Varshney, Kalpna Varshney, Kajal Gautam, Meghna Chaudhary, Monika Tanwar	Kalpna Varshney, Chemistry, FET, MRIIRS	3rd International Conference on Science, Engineering and Materials	Jul-19	No
4	ECE	Niharika Thakur	Congestion Reduction under IPFC based deregulated electricity market using AKH algorithm	Niharika Thakur, Y.K Awasthi, Manisha Hooda, A.S Siddiqui	Yogendra Kumar Awasthi, ECE, FET, MRIIRS and AS Siddiqui, Jamia Millia Islamia	FEST 2019 - Future of Engineering Systems and Technologies 2019.	Dec-19	1478/012027

5	ECE	Niharika Thakur	Profit based Unit Commitment Problem solving using Hybrid CUCKOO-GWO Algorithm	Niharika Thakur, Y.K Awasthi, Manisha Hooda, A.S Siddiqui	Yogendra Kumar Awasthi, ECE, FET, MRIIRS and AS Siddiqui, Jamia Millia Islamia	FEST 2019 - Future of Engineering Systems and Technologies 2019.	Dec-19	1478/012027
6	ECE	Niharika Thakur	Parametric Analysis of Adaptive Whale Optimization Technique for Power Quality Enhancement in Restructured Electricity Market.	Niharika Thakur, Y.K Awasthi, Manisha Hooda, A.S Siddiqui	Yogendra Kumar Awasthi, ECE, FET, MRIIRS and AS Siddiqui, Jamia Millia Islamia	2019 IEEE 2nd International Conference on " Power Energy, Environment and Intelligent Control"	Oct-19	978-1-7281-1793-5
7	ECE	Niharika Thakur	Algorithmic Analysis on Hybrid-Intelligent Deregulated Electricity Market.	Niharika Thakur, Y.K Awasthi, Manisha Hooda, A.S Siddiqui	Yogendra Kumar Awasthi, ECE, FET, MRIIRS and AS Siddiqui, Jamia Millia Islamia	2019 IEEE 2nd International Conference on " Power Energy, Environment and Intelligent Control"	Oct-19	978-1-7281-1793-5
8	CST	Parneeta Dhaliwal	An Approach for handling concept drifting streams: Early Dynamic Weighted Majority	P.Dhaliwal, A.Kumar, P. Potalia	Ajay Kumar, Shree Guru Gobind Singh Tricentenary University Gurugram Poonam Chaudhary, The Northcap University	International Conference on Computational Intelligence and Data Science (ICCIDS-2019)	Sep-19	2653 – 2661

ANNEXURE 5.1

Sr. No	Dept.	Student Name	Company Name	Duration	Package
1	ECE	Arika Singla	NIIT Technologies	6 months	NIL
2		Ayush Goyal	Expert Lancing	6 months	NIL
3		Ayushi Maurya	IBI	6 months	NIL
4		Daman Jeet Singh Bhatia	Reliance Jio Infocomm Ltd.	6 months	NIL
5		Dhruv Kapoor	Encoder India Pvt. Ltd.	6 months	NIL
6		Madan Mohan Dhir	Advancetech India Pvt. Ltd.	6 months	NIL
7		Manish Kumar Sharma	Arodhaya Buildcom Pvt. Ltd.	6 months	NIL
8		Manpreet Singh	Vinsm Starclinch Pvt. Ltd	6 months	NIL
9		Mayank Hans	Truechip	6 months	NIL
10		Mohit Yadav	Truechip	6 months	NIL
11		Rajan Gaur	Ghrs Pvt. Ltd.	6 months	NIL
12		Raman Mishra	24*7around	6 months	NIL
13		Ravi Kumar	Panasonic	6 months	NIL
14		Rohit Gupta	Advancetech India Pvt. Ltd.	6 months	NIL
15		Sanchita Dhar	NIIT Technologies	6 months	NIL
16		Shailesh Tiwari	S. I. Energy Ventures Pvt. Ltd	6 months	NIL
17		Shivam Bhatia	Prime Infra	6 months	NIL
18		Shreya Gupta	Google Digital Unlocked	6 months	NIL
19		Vansh Tara	Revolt Motors	6 months	NIL
20		Vijay Arora	3 Pillar Global	--	NIL
21		Vishal Prasad	Panasonic	--	NIL
22		Vishwajeet Mallick	Bytedance Ltd.	--	NIL
24		LAW	Nikhil Indora	Law Office Of Shimpy Arman	2 months

			Sharma		
25		Anoushka Singh	Lall & Sethi	1 month	NIL
26		Madhoo Kant Bhatia	Deepak Gera & Co	3 months	NIL
27		Neha Tiwari	Adv Rajpal Tanwar	1 month	NIL
28		Ramdatt Bhati	Juhi Arora, Supreme Court of India	1 month	NIL
29		Taruna Panwar	Kamaljeet Kataria	1 month	NIL
30		Tejaswi Dudeja	Juhi Arora, Supreme Court of India	1 month	NIL
31		Deepak Sharma	Advocate K.P.Shah	1 month	NIL
32		Amit Yadav	Indian Law Partners Advocates And Consultants	2 months	NIL
33		Deepanshi Bhutani	Adv Faiyaz Khalid	1 month	NIL
34		Muskan Goyal	Adv Faiyaz Khalid	1 month	NIL
35		Pratyush Chhabra	Adv Arun Sharma & Javed Khan	2 months	NIL
36		Shubham Aggarwal	Adv Arun Sharma & Javed Khan	2 months	NIL
37		Vansh Sharma	Himanshu Sachdeva	1 month	NIL
38		Vatsala Bhusari	Adv Sujit Ghosh	1.5 month	NIL
39		Divya Mishra	Advocatespedia Foundation	1 month	NIL
40		Riya Sharma	Chander Prakash Taneja	3 months	NIL
41		Shubhangi Sharma	Renu Sharma	3 months	NIL
42		Sneha Ranjan	CHSS Organisation	1 month	NIL
43		Sudha Jawla	Advocates Pedia Foundation	1 month	NIL
44		Yashika Yadav	Advocates Pedia Foundation	2 months	NIL
45		Deeksha	Madhuri Bakshi	1 month	NIL
46		Rashi Dudeja	Madhuri Bakshi	1 month	NIL

47		Deeksha Vashisht	Bakshi & Associates	1 month	NIL
48		Abdul Momin Mullick	Center Of Peace & Sustainability	1 month	NIL
49		Gaurav Chaudhary	Saket District Court	1 month	NIL
50		Kapil Lohia	Teens Of God	1 month	NIL
51		Kartik Sharma	Trans-India Law Associates (2) Indian Police Foundation And Institute	4 months	NIL
52		Shobhna Bhushan	Muskurahat Foundation	1 month	NIL
53		Yash Sharma	Kamal Kant Sharma	1 month	NIL
54		Shanu Agarwal	Jain & Company	1.5 months	NIL
55		Abhey Gupta	Hindustan Power	1 month	NIL
56		Akash Bhatia	Dr Aruna Namballa	1 month	NIL
57		Dev Chechi	Rural Litigation & Entitlement Kendra (Rlek)	1 month	NIL
58		Durga Bhardwaj	CADR/ Joel	3 months	NIL
59		Khushi Sharma	Jagminder Singh Khanagwal PP , DP.DA	1 month	NIL
60		Namrata Chauhan	Alok Kumar Rai	--	NIL
61		Nikita Dhankar	Shitanshu Kumar Gaur	--	NIL
62		Priyanka Walter	CADR	--	NIL
63		Sakshi Sharma	Nishant Sharma	3 months	NIL
64		Tanya	Jagminder Singh Khanagwal PP , DP.DA	1 month	NIL
65		Ankit Baisla	Dalip Singh	1 month	NIL
66		Anshu Janmeda	Ramnik Singh	1 month	NIL
67		Harsh	Ajit Dagar	--	NIL

		Sehrawat			
68		Kesar Attri	District Court	--	NIL
69		Prachi Chaurasiya	Ramnik Singh	--	NIL
70		Pragya Choudhri	Air Law Academy & Research Centre	1 month	NIL
71		Rishabh Tyagi	Shitanshu Gaur	1.5 months	NIL
72		Salman Ansari	Shivani Rafi	2 months	NIL
73		Snigdha Kiran	Sun Legal	1 month	NIL
74		Yashika Malhotra	Ramnik Singh	--	NIL
75		Neha Uttam Gupta	Associates Law Offices/ CADR	--	NIL
79	MANAGEMENT	Krati	Miles Education	1 month	NIL
80		Ishita Khanna	Miles Education	1 month	NIL
81		Simran Tiwari	Miles Education	1 month	NIL
82		Jishnu Kopparapu	"YEF" Youth Empowerment Foundation	1 month	NIL
83		Aviral Bhola	Delloitte From Insideshrepa	7 days	NIL
84		Anmol Prakash Sai	Red Book Snow LLP	10 days	NIL
85		Ishita Khanna	Kpmg	2 months	NIL
86		Gursanjog Singh	Marketing Division Of "Unleash Your Passion"	2 weeks	NIL
87		Khushi Goyal	Nav Abhayan School	4 months	NIL
88		Sony Kumari	Kpmg	2 months	NIL
89		Jishnu Kopparapu	KPMG	--	NIL
90		Anmolprakash Sai	Shine Projects	--	--
91		Abhishek Singh	Mg Motor India.	2 months	NIL
92		Jishnu Kopparapu	Arrina Education Services Pvt. Ltd	2 months	--
93		Khushi Goyal	Book URPG	1 week	NIL

94		Khushi Goyal	Socio Labs	2 months	NIL
95		Nitin Gupta	HOUSEITT	1 week	NIL
96		Deepsi Batra	Pace Innovations	1 month	NIL
98	CST	Ankur Singh	Power Grid Corp Of India Ltd	6 months	NIL
99		Komal Goswami	Nirman Advertising	6 months	NIL
100		Sahil Sharma	SWS Technologies	6 months	
101		Abhishek Rai	W3Dev Pvt Ltd	6 months	NIL
102		Gajender Chauhan	Damco Solutions	6 months	NIL
103		Harshri Gaba	Pie Infosystems	6 months	YES
104		Jaspreet Singh	Inch Engineering And Services Pvt. Lmt.	6 months	NIL
105		Karan	Powergrid Corp Of India Ltd	6 months	NIL
106		Mohit Arora	Damco Solutions	6 months	NIL
107		Piyush Anand	Railtel Corp Ltd	6 months	NIL
108		Rahul Chauhan	Digiaark	6 months	NIL
109		Ravinder Yadav	Railtel Corporation India Ltd.	6 months	NIL
111		Yogesh Chaudhary	World Yard	6 months	15K
112		Akash Rai	Aroma Computer Systems	6 months	2.5K
113		Anusha Gupta	Spice Jet Limited	6 months	NIL
114		Chetan Singh	Damco	6 months	NIL
115		Gulab Kapila	Colston	6 months	NIL
116		Khushal Yadav	Dror Labs Private Ltd.	6 months	NIL
117		Lavanya Anand	Use The Greeks Pvt Ltd.	6 months	NIL
118		Mayank Garg	Successive Technology Pvt Ltd.	6 months	12K
120		Sahil Sachdeva	Digital Impact Square Foundation, Tcs	6 months	15K
121	Vaibhav Hooda	Shri Guru Nanak Mission, Greater Kailash	6 months	NIL	

123	Abdul Rub Saifi	Technosprings Pvt. Ltd.	6 months	NIL
124	Aman Yadav	Surat Infotech, Gujrat	6 months	NIL
125	Amit Rawat	Ministry Of Electronics And Information Technology	6 months	NIL
126	Ankit Talwar	laugmentor Labs (P) Ltd	6 months	10K
128	Dhruv Kumar	Eavisson Systems	6 months	
129	Harman Singh	Sgmn.Org	6 months	NIL
130	Himanshu Thakur	Glob GIS	6 months	NIL
131	Lokesh Chaudhary	Techstack Institute	6 months	NIL
132	Rinny Gupta	Website Sketchers Pvt. Ltd.	6 months	NIL
133	Riya Sandhu	Intellect Partners	6 months	11K
134	Ruchi Bhatt	Intellect Partners	6 months	11K
135	Sanyam `Popli	Brand Visage	6 months	5K
136	Shubham Yadav	Imarticus Learning	6 months	NIL
137	Aashish Rawat	Imarticus Learning	6 months	NIL
138	Amrit Kaur Narang	Dreamhii Creatives	6 months	12K
139	Ankit Mann	Webhelpy	6 months	NIL
140	Mohit Kumar	Nirman Advertising Pvt. Ltd.	6 months	NIL
141	Ravi Joshi	Alpha Design Technologies	6 months	NIL
142	Shiva Vats	Tenwave Infotech Pvt. Ltd	6 months	NIL
143	Yadu Nandan	Coditas Technologies	6 months	NIL
144	Rohit	Join The Dots	6 months	NIL
145	Aarush Sharma	Acs Solution Pvt. Ltd.	6 months	NIL
146	Arjun Guleria	Codec Networks Pvt Ltd	6 months	NIL
147	Arun Kumar	College	6 months	NIL
148	Kandy Arora	To The New	6 months	15K

149		Krishna Chaturvedi	Crowe	6 months	17.5K
150		Rajeev Singh	Investors Home	6 months	NIL
151		Shobhen Tewatia	Lido Learning	6 months	22K
152		Yashwant Singh	Codec Networks	6 months	NIL
153		Akash	Webhelpy	6 months	NIL
154		Anshika Sachdeva	Intellect Partners	6 months	11 K
155		Ayush Srivastava	Lido Learning	6 months	22 K
156		Bhavishya Raheja	E & Y	6 months	NIL
157		Chirag Jain	Cogniscent Business Solutions	6 months	NIL
158		Gaurav Mazumder	Croma Campus Training & Developement	6 months	NIL
159		Jatin Jangra	Webhelpy Technologies	6 months	NIL
160		Manish Khurana	Shoes On Loose	6 months	NIL
161		Nishant Dhingra	Cavisson Astar Netsolutions	6 months	NIL
162		Prashant Kumar Singhal	Qspider, Bangalore	6 months	NIL
163		Rajender Kr. Shaw	Croma Campus Training & Developement	6 months	NIL
164		Raviraj Chauhan	Croma Campus Training & Developement	6 months	NIL
165		Shambhavi Saini	Cords Cable Pvt Ltd.	6 months	NIL
166		Aditya Sharma	Infogain India Private Ltd.	6 months	NIL
168		Ankita Singh	Cavisson Astar Netsolutions	6 months	NIL
169		Himanshu Sharma	Vserv Business Solutions Pvt Ltd.	6 months	NIL
170		Himanshu	Self Project	6 months	NIL

		Thapliyal			
171		Ishaan Bansal	Zimozi Solutions	6 months	NIL
172		Manish Pokhriyal	Ministry Of Electronics And Information Technology	6 months	NIL
173		Nilender Nath	Filix Consulting	6 months	NIL
174		Pranjal Garg	Zimozi Solutions	6 months	NIL
175		Rachit Dhariwal	S.O.Infotech	6 months	NIL
176		Rohit Rawat	Socialache Pvt Ltd	6 months	NIL
177		Shashank Uppal	College	6 months	NIL
178		Sourabh Sharma	Bses Delhi	6 months	NIL
179		Surbhi Makkar	Ducat	6 months	NIL
180		Vaibhav	Empyrean Events	6 months	NIL
181		Vishal Yadav	Webhelpy Technologies Pvt Ltd	6 months	NIL
182		Yash Bakshi	Eclipse Nation	6 months	NIL
183		Hemant Kumar	Swadhya Publishing House	6 months	NIL
184		Piyush Dwivedi	Damco Solutions	6 months	NIL
185		Shubham Sharma	Collabera Technologies Pvt Ltd	6 months	NIL
186		Shubhankar Verma	Orbeez	6 months	NIL
187		Vishnu Sharma	Damco Solutions	6 months	NIL
188		Manish Sharma	Gsm Engineers Pvt	6 months	NIL
189		Aakash Chaudhary	Empyrean Events, Gurgaon	6 months	NIL
190		Vishal Sehgal	Nhpc,	6 months	NIL
191		Moksh Trivedi	Ontech Digital Technologies Pvt, Delhi	6 months	NIL
192		Raman Deep Singh	Exoticano Travels Pvt, Sonipat	6 months	NIL

193		Bhavya	Mru Research Center	6 months	NIL
194		Deepika Ghotra	Damco Ltd,	6 months	NIL
195		Divij Jindal	Exoticano,	6 months	NIL
196		Hitesh Khanna	So Infotech Pvt,	6 months	NIL
197		Ishu Goel	Ibm, Gurgaon	6 months	NIL
198		Kunal Bhardwaj	Varite India Pvt, Gurgaon	6 months	NIL
199		Madhur Ahuja	Self	6 months	NIL
200		Mayank Mehmi	So Infotech,	6 months	NIL
201		Rahul Mathur	Solicon,Okhla	6 months	NIL
202		Rupali Bhatnagar	National Informatics Center,Shahadra	6 months	NIL
203		Ujjwal Gaur	Rural Electrification Corporation	6 months	NIL
204		Vikash Singh	Damco Solutions,	6 months	NIL
205		Vishrut Sharma	Tech Mahindra	6 months	NIL
206		Yash Pal Baghel	Cetpa Infotech Pvt Ltd	6 months	NIL
207		Aakash Goyal	Codelipi Infotech Pvt Ltd	6 months	NIL
208		Abhay Sharma	Codelipi Infotech Pvt Ltd	6 months	NIL
209		Ashish Kumar	Cogniscent Business Sol,Noida Sec-62	6 months	NIL
210		Gaurav Joshi	Arpanet Softwares ,Greater Noida	6 months	NIL
211		Harsh Aggarwal	Infogain Systems	6 months	NIL
212		Hitesh Bajaj	Cavisson Systems	6 months	NIL
213		Ishika Singla	Vee4 Technologies Pvt.Ltd	6 months	NIL
214		Lucky	Code Lipi Infotech Pvt. Ltd.	6 months	NIL
215		Rishabh Garg	Besseggen Infotech Ltd	6 months	NIL
216		Sagar Garg	Besseggen Infotech Ltd	6 months	NIL

217		Sarthak Setia	Primathon Technologies Ltd.	6 months	NIL
218		Sonalika Singh	Virate India Pvt. Ltd.	6 months	NIL
219		Subodh Gupta	Code Lipi Infotech Pvt. Ltd.	6 months	NIL
220		Tushar Mittal	Cavisson Systems	6 months	NIL
221		Varun Sharma	Easygov	6 months	NIL
222		Vasu Dev Bansal	Phable	6 months	NIL
223		Vishal Sharma	Intellect Partners	6 months	NIL
224		Yash	Visual Design	6 months	NIL
225		Abhijatya Kalp Ritwiz Johri	Orgofirst	6 months	NIL
226		Abhishek Jain	Placed In Tcs . Self Internship	6 months	NIL
227		Ayushi Aggarwal	Binario Technologies	6 months	NIL
228		Jagmohan	Website Sketchers	6 months	NIL
229		Kartik Kumar	Tothenew	6 months	NIL
230		Manav Vashisht	Slashdot Solutions	6 months	NIL
231		Rishabh Sharma	So Infotech Pvt Ltd	6 months	NIL
233		Shivam Kalia	Hyfn Technologies	6 months	NIL
234		Yash Raghuvanshi	Code Lipi Infotech Pvt Ltd	6 months	NIL
235		Jeremy Jason Kujur	Sri Guru Nanak Mission	6 months	NIL
237		Raunak Kumar	Tai Schools	6 months	NIL
238		Shailja Yadav	Till 30 March -- Varite Gurgaon	6 months	NIL
239		Yatin Sharma	Dotline Infotech - Sector 1, Noida	6 months	NIL
240		Harsh Sharma	Cavissonpvt.Ltd	6 months	NIL
241		Tejasv Tanwar	Gip Infosystems Pvt Ltd, Delhi	6 months	NIL
242		Mudit Bhandari	Birlasoft	6 months	NIL
243		Abhishek Sontakke	Ad-Pushups, Delhi	6 months	NIL
244		Aditya	Ibm,Noida	6 months	NIL

		Bhushan Sharma			
245		Aishwarya Nair	Koyo Electronics India Pvt.Ltd	6 months	NIL
246		Aishwarya Khera	Intellect Partners	6 months	NIL
247		Aman Diwakar	Lido Quality Tutorials Pvt Ltd	6 months	NIL
248		Anurag Rawal	Exoticano	6 months	4K
249		Ashish Verma	Ibm India Pvt Ltd.	6 months	15 K
250		Gaurav	Exoticano	6 months	4 K
251		Jaisraj Bhatnagar	Nic	6 months	NIL
252		Kaustubh Dhasmana	Ex2 Solutions Pvt Ltd	6 months	NIL
253		Naman Jain	Gaffar Mart	6 months	10 K
254		Nikita Sanghi	Ibm India Pvt Ltd.	6 months	15K
255		Palash Dubey	Ibm India Pvt Ltd.	6 months	15K
256		Sakshi Arora	Hyfn Technologies	6 months	NIL
257		Saurabh Sethi	My Operator- Voice Tree Technology	6 months	15K
258		Suraj Yadav	Solicon Pvt Ltd	6 months	NIL
259		Tridev Nath Tripathi	Rec	6 months	NIL
260		Virender Kadian	Empyrean Events	6 months	NIL
261		Anurag Tripathi	Cavison System	6 months	10.7K
262		Arish Fatima	NIIT Technologies	6 months	15 K
263		Chirag Walecha	Abacus Desk	6 months	NIL
264		Deepanshu Aggarwal	Phocket Infotech Pvt. Ltd.	6 months	NIL
265		Karan Garg	TCS	6 months	NIL
266		Pooja Seth	Netilly	6 months	12K
267		Ritesh Nagpal	Croma Campus Pvt Lt.	6 months	NIL
268		Sumeet Chandel	Aqugen Technologies Pvt Ltd	6 months	7K
269		Yuvraj Sharma	Startahead Pvt. Ltd.	6 months	NIL

270		Akash Srivastava	Hyfn	6 months	NIL
271		Ankur Bhatt	Hyfn	6 months	NIL
272		Ashutosh Vaish	Contata Solutions	6 months	NIL
273		Dhruv Yadav	Hyfn	6 months	NIL
274		Kanika Gupta	Cevision	6 months	NIL
275		Paras Aggarwal	Temp Solutions Pvt. Lmt.	6 months	NIL
276		Pawan Gupta	Mini Project For Tcs	6 months	NIL
277		Praveen Sharma	Codes Lipi	6 months	NIL
278		Rupal Gupta	Website Sketchers Pvt. Ltd	6 months	NIL
279		Sudhansu Das	Bevrix Pvt. Lmt	6 months	NIL
280		Sumit Kumar Jha	Croma Campus	6 months	NIL
281		Sonal Singhla	Infogain	6 months	NIL
282		Srishti Setia	Nagarro Software Pvt Ltd	6 months	NIL
283		Suraj Makkar	Techchefz	6 months	5K
284		Tegveer Singh	Andy Infosec	6 months	NIL
285		Vishal Tyagi	Self Project	6 months	NIL
286		Abhiroop Chopra	Nuvogen Limited	6 months	10K
287		Kanika Bhatia	Empyrean Event	6 months	15K
288		Kartik Kansal	Under Dr. Aarti, Mru	6 months	NIL
289		Mayank Nagpal	Ico-Technocloud Pvt. Ltd.	6 months	8K
290		Palak Arora	NIIT Technologies	6 months	15K
291		Prerna Sharma	Infogain, Noida	6 months	18K
294	ME	Abdul Ahad	Poly Medicure Ltd	6 months	NIL
295		Abhinav Chawla	Poly Medicure Ltd	6 months	NIL
296		Abhishek Bhardwaj	"Imperial Auto Pvt. Ltd	6 months	NIL
297		Abhishek Mishra	Agro Engineering Works	6 months	NIL

298	Aman Khatana	“Starlite Moulding Product Pvt Ltd.”	6 months	NIL
299	Anas Mansoori	Poly Medicure Ltd,	6 months	NIL
300	Anuj Yadav	“Starlite Moulding Product Pvt Ltd.”	6 months	NIL
301	Ayush Chaudhary	Karpedium Solutions Pvt. Ltd.	6 months	NIL
302	Bhagat Singh	Expert Lancing, Ggn	6 months	NIL
303	Boby	Divye Precise Engineering	6 months	NIL
304	Dinesh Kashyap	Gkn Driveline	6 months	NIL
305	Harpreet Singh	Raptor Supplies	6 months	NIL
306	Himanshu Rawat	Sonalika Tractors	6 months	NIL
307	Isha Sharma	Imperial Auto Ltd.	6 months	NIL
308	Jatin Guglani	Poly Medicure Ltd	6 months	NIL
309	Krishan Mohan Vashist	Sarvae Mangalam Petroleum Pvt. Ltd.	6 months	NIL
310	Maninder Singh	Escorts Limited,	6 months	NIL
311	Manish Kumar Mandal	Pie Tech Projects Pvt Ltd	6 months	NIL
312	Mayank Sadhra	Poly Medicure Ltd.,	6 months	NIL
313	Mukul Bhatia	Karpedium Solutions Pvt. Ltd.	6 months	NIL
314	Nipun Aggarwal	Escorts Construction Limited	6 months	NIL
315	Nishant Pal	Gkn Driveline	6 months	NIL
316	Pankaj Arya	Escorts	6 months	NIL
317	Pawan Kaushik	Ace Pvt. Ltd	6 months	NIL
318	Priyansh Singh	Pie Tech Projects Pvt Ltd	6 months	NIL
319	Rahul Sharma	Samsung	6 months	NIL
320	Rahul Singh Sorout	Escorts Limited,	6 months	NIL
321	Rajat Luthra	Nanosonic India Pvt. Ltd.	6 months	NIL

322		Ranjan	Hindustan Petroleum Corporation Limited,	6 months	NIL
323		Rishabh Kumar Singh	Advanced Appliances Pvt Ltd".	6 months	NIL
324		Sagar Jaglan	"Anand Nvh Pvt"	6 months	NIL
325		Sagar Bisla	Frick India Ltd.	6 months	NIL
326		Sahil Jaglan	Anand Nvh Pvt	6 months	NIL
327		Sahil Verma	Times Internet Limited, Ecstasy It Park	6 months	NIL
328		Shadab Mansoori	Poly Medicure Ltd.	6 months	NIL
329		Shubham Mavi	Sonalika Tractors, Hoshiarpur	6 months	NIL
330		Somesh S	Indigo(Interglobe Aviation Limited)	6 months	NIL
331		Subham Jha	Expert Lancing	6 months	NIL
332		Sumit Kumar Shaw	(Interglobe Aviation Limited)	6 months	NIL
333		Suraj Sharma	Expert Lancing, Ggn	6 months	NIL
334		Suraj Kumar Singh	C&S Electric Ltd	6 months	NIL
335		Vikram Sharma	Escorts India Pvt. Ltd	6 months	NIL
336		Vinay Khemka	Gkn Driveline.	6 months	NIL
337		Vinay Prabhakar	Divye Precise Engineering	6 months	NIL
338		Vishal	Plastic Mold And Rubber Mold,	6 months	NIL
339		Yash Chaudhary	Voith Paper Fabric India,	6 months	NIL
340		Nikhil Kumar	Assessment Of Landslides Using Drone Photogrammetry Models, Drdo, Delhi (Project Done By Student In Drdo)	6 months	NIL
341		Shivansh Sethi	New Rindhir Press Tools,	6 months	NIL
342		Sagar Verma	Groz Tools Pvt. Ltd.,	6 months	NIL

343		Shubham Rohilla	Anand Motors Products (Amp)	6 months	NIL
344		Aashutosh Kumar	Maruti Suzuki India Ltd.	1.5 month	NIL
345		Abhishek Singh	Cadx Tools And Technologies	1.5 month	NIL
346		Akshay Kumar Yadav	Mitaso	1.5 month	NIL
347		Alish Taman Madhukar	Shreeshyam Wire	1.5 month	NIL
348		Amit Kumar	Mitaso	1.5 month	NIL
349		Ankit Singh	Sspl,Drdo	1.5 month	NIL
350		Ashwani Kumar	Jcb	1.5 month	NIL
351		Ayushman	Skh Metal	1.5 month	NIL
352		Bhupender Bawa	Jcb India Pvt. Ltd.	1.5 month	NIL
353		Brahamdeep Singh	Mitaso	1.5 month	NIL
354		Gaurav Kaushik	Jbm Gurugram	1.5 month	NIL
355		Gautam Sharma	Escorts Farmtrac	1.5 month	NIL
356		Himanshu Choudhary	Escorts Farmtrac	1.5 month	NIL
357		Kanuj Nagar	Audi Workshop,	1.5 month	NIL
358		Kartik Singh Bangari	Escorts Powertrac Plant	1.5 month	NIL
359		Kartik Virmani	JBM Gurgaon	1.5 month	NIL
360		Kunal Rohilla	JBM Neel Metal Products	1.5 month	NIL
361		Kushagra Munjal	Escorts Corporate Centre,Kmc	1.5 month	NIL
362		Mohit Nehra	Maruti Suzuki India Ltd. (Manesar)	1.5 month	NIL
363		Naveen Kumar	Segofi Mnr Engine System Pvt. Ltd.	1.5 month	NIL

364		Prashant Singh Tu	Ganesh Engineering	1.5 month	NIL
365		Rahul Yadav	Di-Tech Engineering Pvt. Ltd.	1.5 month	NIL
366		Rajat Goel	Shree Shyam Wires	1.5 month	NIL
367		Rishabh Chawla	JBM Group	1.5 month	NIL
368		Shivam Pasricha	Talbro's Automotive Components Ltd.	1.5 month	NIL
369		Siddharth Chandel	JCB India Limited Headquarter	1.5 month	NIL
370		Tanveer Singh	Escorts Corporate Centre, Kmc	1.5 month	NIL
371		Tushar Goel	JBM Neel Metal Products	1.5 month	NIL
372		Vikas Upadhyay	Di-Tech Engineering Pvt. Ltd.	1.5 month	NIL
373		Vipul Thapar	Yamaha Motors	1.5 month	NIL
374		Abhishek Verma	Northern Railway	1.5 month	NIL
375		Akash Tewatia	JCB Ballabgarh	1.5 month	NIL
376		Akhil Arora	JCB Ballabgarh	1.5 month	NIL
377		Aman Khurana	Amar Udyog Plant li, Sector-25	1.5 month	NIL
378		Ankit	Project	1.5 month	NIL
379		Ankit Dagar	JCB	1.5 month	NIL
380		Ankur Singh Gulia	Cenlub Ballabgarh	1.5 month	NIL
381		Anshuman Khare	Orient Electric	1.5 month	NIL
382		Anubhav Sharma	Sidwal Refrigeration Private Limited	1.5 month	NIL
383		Anurag Katara	Els-Tkd, Indian Railways	1.5 month	NIL
384		Ayush Bansal	Procast India , Sector-24	1.5 month	NIL

385		Chetan Dalawari	Aptiv - Delphi Automotive Systems Pvt Ltd - Bhiwadi	1.5 month	NIL
386		Chirag Khetarpal	Star Wire India Limited, Ballabgarh	1.5 month	NIL
387		Deepak	Di-Tech Engineering Pvt. Ltd.	1.5 month	NIL
388		Deepak Gupta	Victoria Auto Pvt Ltd	1.5 month	NIL
389		Deepak Sharma	Victoria Auto Pvt Ltd	1.5 month	NIL
390		Deepansh Kamboj	Indo Autotech Pvt Ltd, Sector 24,	1.5 month	NIL
391		Hardeep Dagar	Imperial Auto Industries Ltd	1.5 month	NIL
392		Harshit Singhal	Indigo, Gurgaon	1.5 month	NIL
393		Himanshu Kaundal	Project	1.5 month	NIL
394		John Reji	Avibha Industries Pvt Ltd	1.5 month	NIL
395		Kanishk Tyagi	Neel Metal Products Ltd - Jbm Gurugram	1.5 month	NIL
396		Kapil	Ocean	1.5 month	NIL
397		Manu Aggarwal	Imperial Auto Industries Ltd.	1.5 month	NIL
398		Mayank Sharma	Sidwal Refrigeration Pvt Ltd	1.5 month	NIL
399		Megin S Mathew	Santrupti Engineers Pvt. Ltd.	1.5 month	NIL
400		Mohd Adil Bazeed	Jcb	1.5 month	NIL
401		Neeraj	Bharat Gears Pvt. Ltd.	1.5 month	NIL
402		Nikhil Pratap Singh	Amar Udyog Plant Ii, Sector-25 78	1.5 month	NIL
403		Prateek	Sunbeam Auto Pvt. Ltd, Narsingpur,	1.5 month	NIL
404		Rishabh Sikka	Neel Metal Products Ltd - Jbm Gurugram	1.5 month	NIL
405		Sagar	Imperial Auto	1.5	NIL

				month	
406		Sahil Saini	Maruti Suzuki India Ltd. (Manesar)	1.5 month	NIL
407		Saurav Singh	Escorts	1.5 month	NIL
408		Shailesh Rathi	Neel Metal Products Ltd – JBM	1.5 month	NIL
409		Shubham Aggarwal	Indo Autotech Pvt Ltd	1.5 month	NIL
410		Shubhendu Kumar Chaudhary	Maruti Suzuki India Ltd.	1.5 month	NIL
411		Udit Grover	Tykesha	1.5 month	NIL
412		Vijay Sharma	Bharti Constructions Pvt. Ltd.	1.5 month	NIL
413		Vishal Kumar	Prashad Engg. Works ,	1.5 month	NIL
414		Abhishek	Di-Tech Engg. (P) Ltd.	1.5 month	NIL
415		Abhishek Mittal	CNH Industrial (India) Private Limited	1.5 month	NIL
416		Abhishek Sharma	Hero Motocorp ,Dharuhera,	1.5 month	NIL
417		Aditya Chhabra	Project	1.5 month	NIL
418		Akash Shrivastava	Paharpur Business Centre, Nehru Place	1.5 month	NIL
419		Anuj Anand	Fena Pvt. Ltd.	1.5 month	NIL
420		Arjun Singh	Escorts Construction Equient, Ballabgarha	1.5 month	NIL
421		Arun Kundu	Maruti Suzuki India Ltd.	1.5 month	NIL
422		Ayush Gupta	A Square Innovation	1.5 month	NIL
423		Chirag Arora	IPGCL(Ppcl)	1.5 month	NIL
424		Deepak Bhatia	Kopack India	1.5 month	NIL
425		Devesh Bhatia	Expert Lancing Gurgaon	1.5 month	NIL

426		Dinesh	Maruti Suzuki India Limited,Gurgaon	1.5 month	NIL
427		Gurinder Pal Singh Jeiya	Indo Autotech Pvt,Ltd	1.5 month	NIL
428		Karan Mehta	Sidwal Refrigeration Industries Private Limited	1.5 month	NIL
429		Kuldeep Singh	Goodyear India Limited ,Mathura Road ,Ballabgarh	1.5 month	NIL
430		Kumar Gaurav	GKN Driveline	1.5 month	NIL
431		Mayank Khattar	Ocean Overseas,	1.5 month	NIL
432		Mayank Singh Katheria	AGS Filters Pvt. Limited Gujarat	1.5 month	NIL
433		Md. Aamir Suhail	Prashad Engg. Works	1.5 month	NIL
434		Nav Rattan	CS International	1.5 month	NIL
435		Naveen Kumar	JCB India Limited Ballabgarh	1.5 month	NIL
436		Nikhil Arora	GKN Driveline	1.5 month	NIL
437		Nishant Mishra	Expert Lancing	1.5 month	NIL
438		Nitin Kumar Singh	Bosch Chasis Systems India Pvt. Ltd. Manesar	1.5 month	NIL
439		Piyushnagpal	JCB India	1.5 month	NIL
440		Prashant Mendiratta	Daikin Airconditioning India Pvt Ltd	1.5 month	NIL
441		Prateek Sachdeva	Escorts Railway Equient Division	1.5 month	NIL
442		Pulkit Arora	Imperial Auto Industries Ltd.	1.5 month	NIL
443		Rahul Gautam	Imperial Auto Industries Ltd.	1.5 month	NIL
444		Rahul Kalra	Bony Polymers (P)Ltd	1.5 month	NIL
445		Rahul Saini	Maruti Suzuki India	1.5	NIL

		Ltd, Gurgaon	month	
446	Rajeev Haritish	GKN Driveline	1.5 month	NIL
447	Sachin Jaiswal	Huhu Center	1.5 month	NIL
448	Sagar Arora	CNH Industrial (India) Private Limited	1.5 month	NIL
449	Saransh Srivastava	Indraprastha Gas Limited	1.5 month	NIL
450	Shivam Jadon	GKN Drive Line (India)Ltd,	1.5 month	NIL
451	Shubham	Expert Lancing	1.5 month	NIL
452	Sudhir Kumar Prasad	Aarkaya Solar Solution Private Limited	1.5 month	NIL
453	Tarun Tiwari	Micro Precision Products Private Limited	1.5 month	NIL
454	Tushar Arora	Aries India Earth Movers	1.5 month	NIL
455	Vikram Raj Purohit	RV Wire Technologies	1.5 month	NIL
456	Vipul Chouhan	Schenck Rotec India Pvt. Ltd	1.5 month	NIL
457	Aakash Chaudhary	National Thermal Power Corporation Limited	1.5 month	NIL
458	Aakash Panchal	DMRC,Ybd	1.5 month	NIL
459	Abhishek Chauhan	Di-Tech Engg. (P) Ltd.	1.5 month	NIL
460	Adarsh Kumar Mishra	DMRC,Ybd	1.5 month	NIL
461	Aakash Verma	Indraprastha Power Generation Company Lyf	1.5 month	NIL
462	Akshay Nayan	Shreeshyam Wire	1.5 month	NIL
463	Amit Bhardwaj	Indo Autotech Limited	1.5 month	NIL
464	Ankit Aggarwal	Volvo	1.5	NIL

				month	
465		Anuj Gupta	Bses Rajdhani Power Limited	1.5 month	NIL
466		Dheeraj Kumar Singh	Pooja Forge	1.5 month	NIL
467		Gaurav Sehloth	NTPC	1.5 month	NIL
468		Gaurav Sharma	Expert Lancing	1.5 month	NIL
469		Hemant Chauhan	Imperial Auto Industries,	1.5 month	NIL
470		Himanshu Jain	Imperial Auto Industries,	1.5 month	NIL
471		Himanshu Kumar	Indraprastha Power Generation Company Ltd	1.5 month	NIL
472		Jatin Sharma	Northern Railways	1.5 month	NIL
473		Jitender	Honda Motorcycle & Scooter India Pvt. Ltd.	1.5 month	NIL
474		Jitender Kumar	Minda Automotive Solutions Limited	1.5 month	NIL
475		Karan Singh	Indraprastha Power Generation Company Ltd	1.5 month	NIL
476		Lalit Singh	Sandhar Automotives, Gurgaon	1.5 month	NIL
477		Manu Sharma	JCB India Limited Ballabgarh	1.5 month	NIL
478		Nippun Sharma	JCB India Limited Ballabgarh	1.5 month	NIL
479		Nishant	Escorts	1.5 month	NIL
480		Nitin Kumar Atri	Maruti Suzuki India Ltd, Gurgaon	1.5 month	NIL
481		Nitin Patyal	DMRC	1.5 month	NIL
482		Pritam Kumar	Escorts Coporate Centre, KMC	1.5 month	NIL
483		Rajat Dalal	Escorts Coporate	1.5	NIL

		Centre, KMC	month	
484	Sachin Sharma	Shreeshyam Wire	1.5 month	NIL
485	Saurav Sharma	Shreeshyam Wire	1.5 month	NIL
486	Tushar Sharma	JBM Pvt Ltd. Plot No.133 Sector 24	1.5 month	NIL
487	Vikas Kumar	DMRC	1.5 month	NIL
488	Vikas Singh Bisht	Laxman Mistry	1.5 month	NIL
489	Vinay Malik	DMRC	1.5 month	NIL
490	Vishant Singh	Pie Tech Projects Pvt. Ltd.	1.5 month	NIL
491	Amit Kumar	Star Wire	6 months	NIL
492	Avneet Singh	Tata Steel	6 months	2.4/5.25
493	Azharuddin	Star Wire	6 months	NIL
494	Deepanshu Kalra	Star Wire	6 months	NIL
495	Dheeraj	Gulati Auto Electricals Pvt. Ltd	6 months	2.4
496	Fateh Singh	Graphic Designo	6 months	NIL
497	Gautam Ahuja	Stryker	6 months	3
498	Gurpreet Singh	Uno Minda	6 months	3
499	Himanshu Garg	Stryker	6 months	3
500	Himanshu Gulati	Tomita India Pvt Ltd	6 months	2.2
501	Himanshu Gupta	Star Wire	6 months	NIL
502	K.Aditya	Gulati Auto Electricals Pvt. Ltd	6 months	2.4
503	Karan Sehgal	Gulati Auto Electricals Pvt. Ltd	6 months	2.4
504	Kunal Singh	Gulati Auto Electricals Pvt. Ltd	6 months	2.4
505	Manjeet Singh	Star Wire	6 months	NIL
506	Mehrishi Shivam Malik	Star Wire	6 months	NIL

507		Motiur Rahman	Gulati Auto Electricals Pvt. Ltd	6 months	2.4
508		Mukul Chaudhary	Star Wire	6 months	NIL
509		Nazim Hussain	Star Wire	6 months	NIL
510		Nitin Jaiswal	Honda	6 months	NIL
511		Pushpinder Singh	Indigo	6 months	2.4
512		Rahul Malik	Star Wire	6 months	NIL
513		Rahul Lamba	Poly Medicare	6 months	3.25
514		Rajeev Ranjan Singh	Gulati Auto Electricals Pvt. Ltd	6 months	2.4
515		Shivam Bansal	Tata Steel	6 months	5.25
516		Shivam Mahajan	Stryker	6 months	3
517		Shrey Rajput	Star Wire	6 months	NIL
518		Surya Pratap Singh	Capitalvia Global Research Ltd	6 months	3
519		Tushar Kumar Gupta	SAE Project	6 months	NIL
520		Ravi Dutt Sharma	Star Wire	6 months	NIL
521		Kartik	Star Wire	6 months	NIL
522		Aditya Pandit	Escorts Ltd.	1.5 month	NIL
523		Amit Singh	Drive well auto Industry	1.5 month	NIL
524		Ankit Yadav	Toyota	1.5 month	NIL
525		Ankur	JBM	1.5 month	NIL
526		Chandahas Kumar	HYT Engineering Co. Pvt. Ltd	1.5 month	NIL
527		Deepanshu Gaur	Escorts Ltd.	1.5 month	NIL
528		Dheeraj Malik	Escorts Ltd.	1.5 month	NIL
529		Divyam Mittal	Escorts Ltd.	1.5 month	NIL
530		Gourav Arora	Hitachi	1.5 month	NIL

531		Hardik Chaudhry	Bhagwati Engineering Enterprises	1.5 month	NIL
532		Himanshu Gaur	Escorts Ltd.	1.5 month	NIL
533		Kapil Dagar	Escorts Ltd.	1.5 month	NIL
534		Karan Choudhary	Project At College Premise	1.5 month	NIL
535		Kartik Atri	Honda/Minda	1.5 month	NIL
536		Lakshay Makar	Sai Lpg Products	1.5 month	NIL
537		Manan Aggarwal	Associated Engineering Industries	1.5 month	NIL
538		Mohd Tariq Saifi	Escorts Ltd.	1.5 month	NIL
539		Pradeep Yadav	Escorts Ltd.	1.5 month	NIL
540		Prashant Sharma	Hyt Engineering Co. Pvt. Ltd	1.5 month	NIL
541		Prateek Mahapatra	Maruti Suzuki	1.5 month	NIL
542		Pushpender Dagar	Maruti Suzuki	1.5 month	NIL
543		Rahul Yadav	Sai Lpg Products	1.5 month	NIL
544		Sachisth Dutta	Maruti Suzuki	1.5 month	NIL
545		Sandeep	Escort	1.5 month	NIL
546		Sanjay Singh	Maruti Suzuki	1.5 month	NIL
547		Sarim Ealia Humayun	Maruti Suzuki	1.5 month	NIL
548		Satyam Goel	JRNEngineering Works	1.5 month	NIL
549		Shantnu Bali	Anand Industries	1.5 month	NIL
550		Shivam Kumar	Project At College Premise	1.5 month	NIL

551		Shivam Kumar Singh	Minda / Maxop	1.5 month	NIL
552		Sparsh Sharma	Jay Ushin Ltd	1.5 month	NIL
553		Syed Qurretulain Zaidi	Jay Ushin Ltd	1.5 month	NIL
554		Tanish Saklani	ESS ESS Ceratch	1.5 month	NIL
555		Tushar Jindal	Maruti Suzuki	1.5 month	NIL
556		Udit Jain	Tecumseh India Pvt. Limited	1.5 month	NIL
557		Vaibhav Joshi	Bhagwati Engineering Enterprises	1.5 month	NIL
558		Vinit Yadav	Indian Railway	1.5 month	NIL
559		Vishal Chauhan	Hitachi	1.5 month	NIL
560		Vishal Kaushik	Indian Railway	1.5 month	NIL
561		Vishvjeet Pratap Singh	Maruti, Manesar	1.5 month	NIL
562		Tushar Saini	Sai Lpg Products	1.5 month	NIL
563		Nishu	JCB India Limited/Andritz Hydro Pvt Limited	1.5 month	NIL
564		Divyansh Ahuja	Sanatan Autoplast Pvt. Ltd.	1.5 month	NIL
565		Mukesh Kumar Das	Project At College Premises	1.5 month	NIL
566		Sarfaraz Alam	SSP Private Limited	1.5 month	NIL
567		Ritvik Manocha	SSP Private Limited	1.5 month	NIL
568	Maths	Divyansh	In House Summer Training	4 weeks	NIL
569		Himanshi Panwar	In House Summer Training	4 weeks	NIL
570		Ritik Kadian	In House Summer	4 weeks	NIL

			Training		
571		Ritik Sharma	In House Summer Training	4 weeks	NIL
572		Rohit Kumar Chhillar	In House Summer Training	4 weeks	NIL
573		Sakshi	In House Summer Training	4 weeks	NIL
574		Sarvesh	In House Summer Training	4 weeks	NIL
575		Shobhit Pandey	In House Summer Training	4 weeks	NIL
576		Aakansha Singh	Internshala(Data Science)	6 weeks	NIL
577		Akanksha Singh	In House Summer Training	4 weeks	NIL
578		Anurag Vashishth	In House Summer Training	4 weeks	NIL
579		Ashish Kumar	In House Summer Training	4 weeks	NIL
580		Ashish Sharma	In House Summer Training	4 weeks	NIL
581		Ashish Yadav	In House Summer Training	4 weeks	NIL
582		Bhavya	Pramerica Life(Intermarket Analysis)	4 weeks	NIL
583		Gajender Yadav	In House Summer Training	4 weeks	NIL
584		Harshita Gautam	Unacademi(Data Science)	4 weeks	NIL
585		Himanshi Arora	Coursera(Data Science)	6 weeks	NIL
586		Meenal Garg	In House Summer Training	4 weeks	NIL
587		Nikita Sharma	In House Summer Training	4 weeks	NIL
588		Nischal	Internshala(Python Programming)	6 weeks	NIL
589		Priya Soni	In House Summer Training	4 weeks	NIL
590		Raghu Rawal	Unacademi(Data Science)	4 weeks	NIL

591		Rashmi	Internshala(Data Science, Business Communication)	4 weeks	NIL
592		Simran	In House Summer Training	4 weeks	NIL
593		Yashasvi Jakhar	In House Summer Training	4 weeks	NIL
594		Yogesh Beniwal	In House Summer Training	4 weeks	NIL
595		Jayant Raj	In House Summer Training	4 weeks	NIL
596		Akansha Malik	Internshala(Python Programming)	6 weeks	NIL
597		Nisha	In House Summer Training	4 weeks	NIL
598		Prateek Khutela	In House Summer Training	4 weeks	NIL
599		Harendra Kumar Jindal	In House Summer Training	4 weeks	NIL
600		Raj Kumar	In House Summer Training	4 weeks	NIL
601		Ankita Yadav	Project Related Work From lit Tirupati	6 weeks	NIL
602		Riya Fagna	Project Related Work From lit Tirupati	6 weeks	NIL
603		Ridhhi Bhatnagar	Project Related Work From lit Tirupati	6 weeks	NIL
607	Education	Nisha	Manav Rachna International School Sector 46 Gurugram	16 weeks	NIL
608		Swati	Manav Rachna International School Sector 46 Gurugram	16 weeks	NIL
609		Kajal Khatana	Manav Rachna International School Sector 46 Gurugram	16 weeks	NIL
610		Anjali Singh	Manav Rachna International School Sector 14	16 weeks	NIL
611		Annie Mondal	Manav Rachna International School	16 weeks	NIL

			Sector 14		
612		Monika Sharma	Manav Rachna International School Sector 14	16 weeks	NIL
613		Pooja Gupta	Manav Rachna International School Sector 14	16 weeks	NIL
614		Priyanka Kumari	Manav Rachna International School Sector 14	16 weeks	NIL
615		Priyashree Chaubey	Manav Rachna International School Sector 14	16 weeks	NIL
616		Reena Chaudhary	Manav Rachna International School Sector 14	16 weeks	NIL
617		Riya Arora	Manav Rachna International School Sector 14	16 weeks	NIL
618		Nidhi Bidhuri	Manav Rachna International School Sector 14	16 weeks	NIL
619		Ridhi Guglani	Manav Rachna International School Sector 14	16 weeks	NIL
620		Jitender	Manav Rachna International School Sector 14	16 weeks	NIL
621		Aparajita Rathore	Manav Rachna International School Sector 14	16 weeks	NIL
622		Pooja Kapoor	Manav Rachna International School Sector 14	16 weeks	NIL
623		Riya Rana	Grand Columbus School	16 weeks	NIL
624		Shifali Bhardwaj	Grand Columbus School	16 weeks	NIL
625		Priyanka	Grand Columbus School	16 weeks	NIL
626		Shubham	Grand Columbus School	16 weeks	NIL

627		Rama Agnihotri	Grand School	Columbus	16 weeks	NIL
628		Anvi Gupta	Grand School	Columbus	16 weeks	NIL
629		Monika Singh	Grand School	Columbus	16 weeks	NIL
630		Deepanshi Gupta	Grand School	Columbus	16 weeks	NIL
631		Shikha Chaudhary	Manav International School	Rachna Noida	16 weeks	NIL
632		Ruby Rani Jena	Dav School		16 weeks	NIL
633		Vinay Kumari	Dav School		16 weeks	NIL
634		Payal Solanki	Dav School		16 weeks	NIL
635		Varsha Goswami	Dav School		16 weeks	NIL
636		Jyotsna	Dav School		16 weeks	NIL
637		Isha Bhardwaj	Dav School		16 weeks	NIL
638		Pooja Chaurasya	Dav School		16 weeks	NIL
639		Nandini Sharma	Dav School		16 weeks	NIL
640		Moni Kumari	Dav School		16 weeks	NIL
641		Varsha Venugopalan	Dav School		16 weeks	NIL
642		Bhavna Aggarwal	Manav International School	Rachna Charmwood,	16 weeks	NIL
643		Ekta Gaur	Manav International School	Rachna Charmwood,	16 weeks	NIL
644		Himanshu Kumar	Manav International School	Rachna Charmwood,	16 weeks	NIL
645		Jatin Kaushik	Manav International School	Rachna	16 weeks	NIL

		Charmwood,		
646	Neha Baliyan	Manav Rachna International School Charmwood,	16 weeks	NIL
647	Rashi Sharma	Manav Rachna International School Charmwood,	16 weeks	NIL
648	Shivani Sharma	Manav Rachna International School Charmwood,	16 weeks	NIL
649	Subhika Malhotra	Manav Rachna International School Charmwood,	16 weeks	NIL
650	Vandana	Manav Rachna International School Charmwood,	16 weeks	NIL
651	Shruti Bhardwaj	Manav Rachna International School Charmwood,	16 weeks	NIL
652	Kanchan Ambawatta	Manav Rachna International School Charmwood,	16 weeks	NIL
653	Urvashi Aggarwal	Manav Rachna International School Charmwood,	16 weeks	NIL
654	Akshita Shukla	Homerton Grammar School	16 weeks	NIL
655	Chavi Adlakha	Homerton Grammar School	16 weeks	NIL
656	Neha Rana	Homerton Grammar School	16 weeks	NIL
657	Parul Sharma	Homerton Grammar School	16 weeks	NIL
658	Priya Madhulika	Homerton Grammar School	16 weeks	NIL
659	Akash Chauhan	Manav Rachna International School Sector 21-C,	16 weeks	NIL
660	Mohan Prakash	Manav Rachna International School Sector 21-C,	16 weeks	NIL
661	Muddam	Manav Rachna	16	NIL

		Yochitha Reddy	International School Sector 21-C,	weeks	
662		Sukriti	Manav Rachna International School Sector 21-C,	16 weeks	NIL
663		Sarika Dabas	Manav Rachna International School Sector 21-C,	16 weeks	NIL
664		Ramandeep Kaur	Manav Rachna International School Sector 21-C,	16 weeks	NIL
665		Jagriti	Manav Rachna International School Sector 21-C,	16 weeks	NIL
666		Varsha Dixit	Manav Rachna International School Sector 21-C,	16 weeks	NIL
667		Shubhangi Tyagi	Manav Rachna International School Sector 21-C,	16 weeks	NIL
668		Mansi Sharma	Manav Rachna International School Sector 21-C,	16 weeks	NIL
669		Parul Yadav	Manav Rachna International School Sector 21-C,	16 weeks	NIL
670		Latika Arora	Manav Rachna International School Sector 21-C,	16 weeks	NIL
671		Akshara Sharma	Manav Rachna International School Sector 21-C,	16 weeks	NIL
672		Radhika Chhibber	Manav Rachna International School Sector 21-C,	16 weeks	NIL
673		Deepika	Manav Rachna International School Sector 21-C,	16 weeks	NIL
674	PHY	Aakash Verma	In house summer training	4 weeks	NIL
675		Bhoomika	In house summer	4 weeks	NIL

		Chandna	training		
676		Janhavi Sharma	In house summer training	4 weeks	NIL
677		Rahul Goswami	In house summer training	4 weeks	NIL
678		Reena Kaushik	In house summer training	4 weeks	NIL
679		Rohan Mishra	In house summer training	4 weeks	NIL
680		Rohit Kumar	In house summer training	4 weeks	NIL
681		Rohit Singh Rawat	In house summer training	4 weeks	NIL
682		Himani Saraswat	In house summer training	4 weeks	NIL
683		Kalpna Rani	In house summer training	4 weeks	NIL
684		Preeti Sharma	In house summer training	4 weeks	NIL
685		Surekha Chaudhary	In house summer training	4 weeks	NIL
686		Upasna Rawat	In house summer training	4 weeks	NIL
687		Suraj Kumar	In house summer training	4 weeks	NIL
689	CHEM	Akshika Nagar	In house summer training	4 weeks	NIL
690		Bhavya Bansal	In house summer training	4 weeks	NIL
691		Dev Gupta	In house summer training	4 weeks	NIL
692		Divya	In house summer training	4 weeks	NIL

693		Kirti Fagna	In house summer training	4 weeks	NIL
694		Man Mohan Singh	In house summer training	4 weeks	NIL
695		Navin Kumar Yadram	In house summer training	4 weeks	NIL
696		Nikita	In house summer training	4 weeks	NIL
697		Nitin	In house summer training	4 weeks	NIL
698		Ritika Choudhary	In house summer training	4 weeks	NIL
699		Ritika Sharma	In house summer training	4 weeks	NIL
700		Ritu	In house summer training	4 weeks	NIL
701		Sahil Sharma	In house summer training	4 weeks	NIL
702		Sweta Rani	In house summer training	4 weeks	NIL
703		Yash Sharma	In house summer training	4 weeks	NIL
704		Ananya Julka	In house summer training	4 weeks	NIL
705		Anjali Chaudhary	In house summer training	4 weeks	NIL
706		Anshu	In house summer training	4 weeks	NIL
707		Anushka Sharma	In house summer training	4 weeks	NIL
708		Dasari Anirvesh	In house summer training	4 weeks	NIL
709		Deepu	In house summer training	4 weeks	NIL

			training		
710		Divya Arora	In house summer training	4 weeks	NIL
711		Himanshu Kaushik	In house summer training	4 weeks	NIL
712		Kanika	In house summer training	4 weeks	NIL
713		Kapil Garg	In house summer training	4 weeks	NIL
714		Manish Baluni	In house summer training	4 weeks	NIL
715		Mansi	In house summer training	4 weeks	NIL
716		Mogili Madan	In house summer training	4 weeks	NIL
717		Om Prakash Gupta	In house summer training	4 weeks	NIL
718		Rhythm Sapra	In house summer training	4 weeks	NIL
719		Ruby Verma	In house summer training	4 weeks	NIL
720		Sanjana	In house summer training	4 weeks	NIL
721		Shilpi Mukherjee	In house summer training	4 weeks	NIL
722		Shreya	In house summer training	4 weeks	NIL
723		Kajal Goyal	In house summer training	3 months	NIL
724		Shivangi	In house summer training	3 months	NIL
725		Anju	In house summer training	3 months	NIL
726		Preeti	In house summer training	3 months	NIL

727		Aashi	In house summer training	3 months	NIL
728		Namrata	In house summer training	3 months	NIL
729		Umang Gera	In house summer training	3 months	NIL
730		Aksit Bhatia	In house summer training	3 months	NIL
731		Riya Chugh	In house summer training	3 months	NIL
732		Rashmeet Kaur	In house summer training	3 months	NIL
733		Pooja Dagar	In house summer training	3 months	NIL
734		Damini	In house summer training	3 months	NIL
735		Neha Khatana	In house summer training	3 months	NIL
736		Neha Sharma	In house summer training	3 months	NIL
737		Arpita	In house summer training	3 months	NIL
738		Anjali	In house summer training	3 months	NIL
739		Yogita	In house summer training	3 months	NIL
740		Shivani Singh	In house summer training	3 months	NIL
741		Shiksha Tiwari	In house summer training	3 months	NIL
742		Saloni Jangra	In house summer training	3 months	NIL

ANNEXURE 5.2

Sr. no	Dept	Name	Roll no	Company name	Package
1	ECE	Arika Singla	2K16ECUN01001	Tianyini Worldtech India Pvt. Ltd.	3.6
2	ECE	Arika Singla	2K16ECUN01001	NIIT TECHNOLOGIES	3.5
3	ECE	Ayushi Maurya	2K16ECUN01003	Tianyini Worldtech India Pvt. Ltd.	3.6
4	ECE	Madan Mohan Dhir	2K16ECUN01006	TCS	3.36
5	ECE	Mohit Yadav	2K16ECUN01010	Infogain	3
6	ECE	Mohit Yadav	2K16ECUN01010	TCS	3.36
7	ECE	Rajan Gaur	2K16ECUN01011	NIIT TECHNOLOGIES	3.5
8	ECE	Raman Mishra	2K16ECUN01012	NIIT TECHNOLOGIES	3.5
9	ECE	Rohit Gupta	2K16ECUN01014	NIIT TECHNOLOGIES	3.5
10	ECE	Rohit Gupta	2K16ECUN01014	ACS Solution	4.80
11	ECE	Sanchita Dhar	2K16ECUN01015	NIIT TECHNOLOGIES	3.5
12	ECE	Vansh Tara	2K16ECUN01019	Lido Learning	10
13	ECE	Vijay Arora	2K16ECUN01020	3 Pillar Global	4.15
14	ECE	Ayush Goyal	2K16ECUN01002	Expert Lancing Research Services	3.5
15	ECE	Shreya Gupta	2K16ECUN01018	Varite India Private Limited	3.5
16	ECE	Shivam Bhatia	2K16ECUN01017	ACS Solution	4.80
17	ECE	Shivam Bhatia	2K16ECUN01017	Connect2 India	4.20
18	ECE	Vishal Prasad	2K16ECUN01021	ACS Solution	4.80
19	ECE	Mayank Hans	2K16ECUN01009	Mohan Energy Corporation Pvt Ltd, Noida	4.00
20	FMC	Radhika Nigam	21703002N038	Amazon, Bangalore	3
21	FMC	Garima Sharma	21703002N064	Mixture	1.9
22	FMC	Tulsi Devi	2K17MCUN0301	DTDC	1.8

		Sharma	0		
23	FMC	Bhavya	21703002N024	Wipro HR Services	3.08
24	CST	Aditya Bhushan Sharma	2K16CSUN01003	IBM, Jaro Toppscholars	4.5
25	CST	Tridev Nath Tripathi	2K16CSUN01042	EXTRAMARKS	12
26	CST	Aman Diwakar	2K16CSUN01006	Lido Learning	10
27	CST	Shobhen Tewatia	2K16CSUN01039	Lido Learning	10
28	CST	Ayush Srivastava	2K16CSUN01057	Lido Learning	10
29	CST	Deepika Ghotra	2K16CSUN01014	Lido Learning, Collabera, Damco Solutions	10 / 3.5
30	CST	Suraj Makkar	2K16CSUN01179	TCS, Lido Learning	3.36 / 10
31	CST	Vasu Dev Bansal	2K16CSUN01096	Phable (Terrals Technologies Pvt. Ltd), WIPRO	6 / 3.5
32	CST	Saurabh Sethi	2K16CSUN01038	TCS, MyOperator	3.36
33	CST	Palash Dubey	2K16CSUN01029	IBM	4.5
34	CST	Ishu Goel	2K16CSUN01018	IBM	4.5
35	CST	Ritesh Nagpal	2K16CSUN01086	IBM	4.5
36	CST	Ashish Verma	2K16CSUN01011	IBM, TCS	3.36
37	CST	Nikita Sanghi	2K16CSUN01028	IBM, TCS	3.36
38	CST	Purna Sharma	2K17CSUM01002	Infogain, IBM	3.5 / 4.5
39	CST	Mayank Nagpal	2K16CSUN02013	Infogain, IBM	3.5 / 4.5
40	CST	Kaustubh Dhasmana	2K16CSUN01021	NIIT Technologies, EX Squared Solutions, IBM	4.5
41	CST	Hitesh Khanna	2K16CSUN01017	TCS, IBM	4.5
42	CST	Rupal Gupta	2K16CSUN01137	TCS, Quovantis Technologies	4.5
43	CST	Vishrut Sharma	2K16CSUN01046	Cognizant	4

44	CST	Ashutosh Vaish	2K16CSUN01110	Contata Solutions	4
45	CST	Kartik Kumar	2K16CSUN01121	Contata Solutions, TO THE NEW	4
46	CST	Sahil Sharma	2K16CSUN01036	Guardian	4
47	CST	Manish Khurana	2K16CSUN01074	Guardian	4
48	CST	Dhruv Yadav	2K16CSUN01113	Infogain, Guardian	3.5
49	CST	Kunal Bhardwaj	2K16CSUN01024	BYJU'S, AglaSem Edutech Pvt. Ltd, Varite	3.6
50	CST	Gajender Chauhan	2K16CSUN01062	Damco Solutions, Jinigram Consulting Services Pvt. Ltd	3.5
51	CST	Palak Arora	2K16CSUN02015	NIIT Technologies, EX Squared Solutions	3.5
52	CST	Shubham Yadav	2K16CSUN01175	Varite	3.6
53	CST	Sonalika Singh	2K16CSUN01090	Varite	3.6
54	CST	Sumit Kumar Jha	2K16CSUN01144	Varite	3.6
55	CST	Sakshi Arora	2K16CSUN01037	Bristlecone	3.5
56	CST	Srishti Setia	2K16CSUN01178	Bristlecone	3.5
57	CST	Akash Srivastava	2K16CSUN01105	Bristlecone	3.5
58	CST	Tegveer Singh	2K16CSUN01180	Bristlecone	3.5
59	CST	Praveen Sharma	2K16CSUN01132	Damco Solutions	3.5
60	CST	Mohit Arora	2K16CSUN01075	Damco Solutions	3.5
61	CST	Karan Kaher	2K16CSUN01163	Damco Solutions	3.5
62	CST	Rupali Bhatnagar	2K16CSUN01035	Damco Solutions	3.5
63	CST	Vikash Singh	2K16CSUN01044	Damco Solutions	3.5
64	CST	Yash Raghuvanshi	2K16CSUN01150	Damco Solutions	3.5
65	CST	Paras	2K16CSUN01129	Damco Solutions	3.5

		Aggarwal			
66	CST	Chetan Singh	2K16CSUN01112	Damco Solutions	3.5
67	CST	Piyush Dwivedi	2K16CSUN01166	Damco Solutions	3.5
68	CST	Vishnu Sharma	2K16CSUN01182	Damco Solutions	3.5
69	CST	Aditya Sharma	2K16CSUN01103	Infogain	3.5
70	CST	Sonal Singhla	2K16CSUN01177	Infogain	3.5
71	CST	Harsh Aggarwal	2K16CSUN01065	Infogain	3.5
72	CST	Kanika Bhatia	2K16CSUN02009	Infogain, TCS	3.5
73	CST	Aishwarya Khera	2K16CSUN01005	Intellect Partners, Damco Solutions	3.5
74	CST	Yadu Nandan	2K16CSUN02022	NIIT Technologies	3.5
75	CST	Virender Kadian	2K16CSUN01045	NIIT Technologies	3.5
76	CST	Gaurav Joshi	2K16CSUN01063	NIIT Technologies	3.5
77	CST	Shivam Kalia	2K16CSUN01141	NIIT Technologies	3.5
78	CST	Sudhansu Das	2K16CSUN01143	NIIT Technologies	3.5
79	CST	Chirag Walecha	2K16CSUN01060	NIIT Technologies	3.5
80	CST	Arish Fatima	2K16CSUN01055	NIIT Technologies	3.5
81	CST	Sanjil Jain	2K16CSUN01139	NIIT Technologies	3.5
82	CST	Sumeet Chandel	2K16CSUN01092	TCS	3.36
83	CST	Yatin Sharma	2K16CSUN01183	TCS	3.36
84	CST	Pawan Gupta	2K16CSUN01130	TCS	3.36
85	CST	Abhishek Jain	2K16CSUN01102	TCS	3.36
86	CST	Jagmohan	2K16CSUN01119	TCS	3.36
87	CST	Abhiroop Chopra	2K16CSUN02004	TCS	3.36
88	CST	Karan Garg	2K16CSUN01072	TCS	3.36
89	CST	Abhishek	2K16CSUN01002	TCS	3.36

		Sontakke			
90	CST	Bhavya Satija	2K16CSUN01012	TCS	3.36
91	CST	Ujjwal Gaur	2K16CSUN01043	TCS	3.36
92	CST	Krishna Chaturvedi	2K16CSUN01023	Crowe Horwath IT Services LLP	3.35
93	CST	Riya Sandhu	2K16CSUN01170	Intellect Partners	3.25
94	CST	Ruchi Bhatt	2K16CSUN01171	Intellect Partners	3.25
95	CST	Anshika Sachdeva	2K16CSUN01053	TechBlue, Intellect Partners	3.25
96	CST	Anurag Tripathi	2K16CSUN01054	Cavisson	3
97	CST	Dhruv Kumar	2K16CSUN01158	Cavisson	3
98	CST	Varun Sharma	2K16CSUN01095	Cavisson	3
99	CST	Madhur Ahuja	2K16CSUN01025	Cavisson	3
100	CST	Nishant Dhingra	2K16CSUN01076	Cavisson	3
78	CST	Kanika Gupta	2K16CSUN01120	Cavisson	3
79	CST	Hitesh Bajaj	2K16CSUN01067	WIPRO, Cavisson	3.5 / 3
80	CST	Harsh Sharma	2K16CSUN02008	Cavisson	3
81	CST	Tushar Mittal	2K16CSUN01094	Cavisson	3
82	CST	Ankita Singh	2K16CSUN01107	Cavisson	3
83	CST	Aishwarya Nair	2K16CSUN01004	Koyo Electronics	3
84	CST	Jaisraj Bhatnagar	2K16CSUN01019	Thinksys Software Pvt Ltd	3
85	CST	Ayushi Aggarwal	2K16CSUN01111	Binario Technologies	3
86	CST	Pranjal Garg	2K16CSUN01131	Binario Technologies, Zimozi Solutions	3
87	CST	Shubham Sharma	2K16CSUN01174	Collabera	2.7
88	CST	Raunak Kumar	2K16CSUN01168	Sourcing Valley Recruitment and Advisory Services Pvt. Ltd	2.4

89	CST	Shailja Yadav	2K16CSUN01173	Varite, AglaSem Edutech Pvt. Ltd	3.6
90	CST	Vaibhav	2K16CSUN01146	Future Generali India Life Insurance Company Ltd	2
91	CST	Ishaan Bansal	2K16CSUN01118	Future Generali India Life Insurance Company Ltd	2
92	CST	Mayank Garg	2K16CSUN01126	Zimozi Solutions	1.44
93	CST	Subodh Gupta	2K16CSUN01091	Zimozi Solutions	1.44
94	CST	Kandy Arora	2K16CSUN01020	TO THE NEW	
95	CST	Sanyam `Popli	2K16CSUN01172	SHIVALIC POWER CONTROL Pvt. Ltd.	2.4
96	CST	Ankit Talwar	2K16CSUN01155	IAUGMENTOR	3.5
97	CST	Manish Pokhriyal	2K16CSUN01125	SAGE GROUP	
98	CST	Prashant	2K16CSUN01079	ARTERIA	2
99	CST	Ramandeep	2k16CSUN01034	Byju's	10
100		Sourabh Sharma	2K16CSUN01142	Wunderman Thompson	4.5
101	CST	Minhajul Hossain	2K17CSUN01020	CAPGEMINI	3.8
102	CST	Naman Gupta	2K17CSUN01023	ADP INDIA PVT. LTD ,CAPGEMINI	5
103	CST	Vaibhav Saini	2K17CSUN01148	CAPGEMINI	3.8
104	CST	Kishan Kumar Shukla	2K17CSUN01165	CAPGEMINI	3.8
105	CST	Rohan Kumar	2K17CSUN01037	CAPGEMINI	3.8
106		Siddharth Gautam	2K17CSUN01170	CAPGEMINI	3.8
107	CST	Yogesh Dixit	2K17CSUN01158	CAPGEMINI	3.8
108	CST	Rajneesh Chaturvedi	2K17CSUN01140	CAPGEMINI	3.8
109	CST	Vaibhav Kaushik	2K17CSUN01047	CAPGEMINI	3.8
110	CST	Diksha Babbar	2K17CSUN01062	CAPGEMINI	3.8

111	CST	Sachin Gupta	2K17CSUN01087	CAPGEMINI	3.8
112	CST	Prachi Chaudhary	2K17CSUN01167	CAPGEMINI	3.8
113	CST	Yogesh Kumar	2K17CSUN01154	ADP INDIA PVT. LTD ,CAPGEMINI	5
114	CST	Mukul Singh	2K17CSUN01132	CAPGEMINI	3.8
115	CST	Nitanshi	2K17CSUN01135	CAPGEMINI	3.8
116	CST	Parul Matta	2K17CSUN01137	CAPGEMINI	3.8
117	CST	Harsha Sethi	2K17CSUN01123	CAPGEMINI	3.8
118	CST	Ritvik Mukheja	2K17CSUN01084	CAPGEMINI	3.8
119	CST	Anurag Bhardwaj	2K17CSUN01056	CAPGEMINI	3.8
120	CST	Nilansh Khurana	2K17CSUN01027	CAPGEMINI	3.8
121	CST	Palak Bansal	2K17CSUN01028	CAPGEMINI	3.8
122	CST	R Kavya	2K17CSUN01031	CAPGEMINI	3.8
123	CST	Rashi Saxena	2K17CSUN01032	CAPGEMINI	3.8
124	CST	Deepti Tuteja	2K17CSUN01012	CAPGEMINI	3.8
125	CST	Mayank Khattar	2K17CSUN01019	CAPGEMINI	3.8
126	CST	Chitransh Bhatnagar	2K17MEUN01008	CAPGEMINI	3.8
127	CST	Austin Samuel	2K17CSUN01008	CAPGEMINI	3.8
128	CST	Aayush Singh	2K17CSUN01001	CAPGEMINI	3.8
129	CST	Rishabh Dhiman	2K17CSUN01035	DAFFODIL / CAPGEMINI	4 / 3.8
130	CST	Lizel Mehta	2K17CSUN01071	DAFFODIL / MAVEN WAVE	4
131	CST	Nitin Aggarwal	2K17CSUN01077	ADP INDIA PVT. LTD	5
132	CST	Abhishek Pandey	2K17CSUN01104	JARO EDUCATION	6.6
133	CST	Anubhav Mukhija	2K17CSUN01006	EX Squared Solutions, Maven Wave	3.6, 4
134	CST	Parth	2K17CSUN01029	JARO EDUCATION	6.6

		Choudhary			
135	CST	Stephen Denson	2K17CSUN01147	MAVEN WAVE	4
136	CST	Divyam	2K17CSUN01120	EX Squared Solutions	3.6
137	CST	Dipesh Yadav	2K17CSUN01160	MAVEN WAVE	4
138	CST	Aarti Sharma	2K17CSUN01168	Maven Wave	4
139	ME	Shubham Mavi	2K16MEUN01040	SONALIKA TRACTORS	5.5
140	ME	Somesh S	2K16MEUN01041	INDIGO	3
141	ME	Abhishek Bhardwaj	2K16MEUN01003	EXPERT LANCING	3
142	ME	Mayank Sadhra	2K16MEUN01023	POLYMEDICURE	2.4
143	ME	Krishan Mohan Vashist	2K16MEUN01020	EXPERT LANCING	3
144	ME	Suraj Sharma	2K16MEUN01044	EXPERT LANCING	3
145	ME	Shubham Rohilla	2K17MEUL01005	OSM PROJECTS PRIVATE LTD	3
146	ME	Bhagat Singh	2K16MEUN01011	EXPERT LANCING	3
147	ME	Abhinav Chawla	2K16MEUN01002	POLYMEDICURE	2.4
148	ME	Ayush Chaudhary	2K16MEUN01010	EXPERT LANCING	3
149	ME	Abdul Ahad	2K16MEUN01001	POLYMEDICURE	3
150	ME	Sahil Verma	2K16MEUN01038	EXPERT LANCING	3
151	ME	Subham Jha	2K16MEUN01042	EXPERT LANCING	3
152	ME	Sumit Shaw	2K16MEUN01043	INDIGO	3
153	ME	Krishan Mohan Vashist	2K16MEUN01020	SONALIKA TRACTORS	5.5
154	ME	Mayank Sadhra	2K16MEUN01023	SONALIKA TRACTORS	5.5
155	ME	Sagar Bisla	2K16MEUN01036	OSWAL CASTING PVT LTD	3
156	ME	Sagar Jaglan	2K16MEUN01035	OSWAL CASTING PVT LTD	3
157	ME	Vikram Sharma	2K16MEUN01046	OSWAL CASTING PVT LTD	3

158	ME	Suraj Kumar	2K16MEUN01045	OSWAL CASTING PVT LTD	3
159	ME	Sahil Jaglan	2K16MEUN01037	OSWAL CASTING PVT LTD	3
160	ME	Abhishek Mishra	2K16MEUN01004	OSWAL CASTING PVT LTD	3
161	Maths	Bhavya Budhiraja	2K18MAUN01006	LIDO LEARNING	10
162	Education and Humanities	Akshita Shukla	2K18EDUN01001	MANAV RACHNA INTERNATIONAL SCHOOL CHARMWOOD, FARIDABAD	3.8
163	Education and Humanities	Akash Chauhan	2K18EDUN01003	ST. COLUMBUS SCHOOL, DAYAL BAGH	1.8
164	Education and Humanities	Rama Agnihotri	2K18EDUN01066	ST. COLUMBUS SCHOOL, DAYAL BAGH	1.8
165	Education and Humanities	Pooja Gupta	2K18EDUN01029	SHRI DHRONACHARYA PUBLIC SCHOOL, FARIDABAD	1.75
166	Education and Humanities	Radhika Chhibber	2K18EDUN01032	NEW GREEN FIELD SCHOOL, SAKET NEW DELHI.	3.5
167	Education and Humanities	Neha Baliyan	2K18EDUN01012	ST. COLUMBUS SCHOOL, DAYAL BAGH	1.75
168	Education and Humanities	Deepika	2K18EDUN01011	SAINT RAMAN PUBLIC SCHOOL, DELHI	1.8
169	Education and Humanities	Aprajita Rathore	2K18EDUN01059	DYNASTY INTERNATIONAL SCHOOL, FARIDABAD	2.5
170	Education and Humanities	Riya Arora	2K18EDUN01069	NAV JYOTI SENIOR SECONDARY SCHOOL, BALLABHGARH	1.8
171	Education and Humanities	Annie Mondal	2K18EDUN01005	ST. PETER SCHOOL, SECTOR 66 FARIDABAD	2.40
172	Education and Humanities	Reena Choudhary	2K18EDUN01034	KALKA PUBLIC SCHOOL, NEW DELHI	2.5

173	Education and Humanities	Jatin Kaushik	2K18EDUN01014	FERNS AND PETALS	2.52
	Education and Humanities	Shruti Bhardwaj	2K18EDUN01044	FERNS AND PETALS	3.12
174	Education and Humanities	Subhika Malhotra	2K18EDUN01040	EASE ADMISSIONS JANAKPURI, DELHI	1.6
175	Education and Humanities	Ruby Rani Jena	2K18EDUN01046	ST. COLUMBUS SCHOOL, DAYAL BAGH	1.8
176	Chemistry	Anjali	2K18CHPN01002	JUBILANT CHEMISYS, DELHI	2.75



Internal Quality Assurance Cell

Minutes of Meeting Nov 22, 2019

In presence of Dr. Prinima, Dr. Mrinal, Dr. Sachita, Dr. Animesh, Mr. Ajit, Dr. Hardeo Thakur, Dr. Kiran Gupta, Dr. Charu Pathak, a meeting of IQAC Team was conducted.

Day and Date: Friday, Nov 22, 2019

Time: 11:40 am

Venue: HG12

Agenda :

1. compilation of AQAR (18-19)

Discussion:

1. Dr. Sachita and Dr. Animesh gathered some data for the criteria assigned to them.
2. The doubts of other criteria to the members present were cleared.
3. Mr. Ajit would compile the pending data of criteria V.
4. The data along with the proofs of same and the website link would be attached as annexure.
5. The Annexure name would be same as the point number in the AQAR.
6. The NAAC manual should be referred for the details.

Internal Quality Assurance Cell

Minutes of Meeting Dec 23, 2019

In presence of Prof.A.K.Gupta, Prof.D.K.Sharma, Dr.Charu Pathak, Dr.Sachita and Dr.Animesh, a meeting of IQAC Team was conducted.

Day and Date: Monday, Dec23, 2019

Time: 11:45 am

Agenda :

1. compilation of AQAR (18-19)

Discssion:

1. *The data provided by Mr. Animesh was reviewed and a review was suggested for the same.*
2. *The data provided by Ms. Sachita was reviewed and few modifications were suggested. The data may be completed in co-ordination with Mr. Ajit.*



Internal Quality Assurance Cell

Minutes of Meeting

In presence of Prof.A.K.Gupta, Prof.D.K.Sharma, Dr.Charu Pathak, Dr. Mrinal Pandey, Dr. Prinima Gupta, Dr.Y.K.Sharma, Mr.Ajit Katiyar, Dr.Hardeo Thakur, Dr. Arpit Sand, a meeting of IQAC Team was conducted.

Day and Date: Friday, Jan 3, 2020 Time: 11:45 am

Agenda :

1. Compilation of AQAR (18-19)
2. Course file review (Jan- June 2020)

Discussion:

1. Regarding compilation of AQAR, the teams already assigned given criteria of PART B may kindly compile latest by 10th Jan, 2020. A review meeting shall be held on 11th Jan, 2020
2. Seven more members may be added to the team for the continuous data maintenance (for AQAR 19-20) of the allotted criteria. The number of team members for compilation may be divided as follows:
PART A- 2
PART B - (6 criteria *2) = 12 members
IQAC activities and data- 2
Overall compilation - 2
3. A course file review of the courses to be taught in Jan- June, 2020 may be executed on Jan 10, and Jan 11, 2020. Prof.Gupta will be shortly sharing the formats and details.
4. Course files would include a write up on (Action taken /modifications) carried out on the basis of previous feedback of the course. (The implementation of same has to be verified after T1 and T2 by the HOD)
5. A departmental level review is encouraged for the subject content.
6. Course plan as already being followed with few additional matrices

/ mappings of COs andPOs (level 0, 1, 2, and 3) may be incorporated. (Prof .Gupta has will share the same).

7. The content list of course files as provided by Prof.Sangeeta Banga, Dean Academics maybe used (with any other required additions as per the course instructor/ coordinator)
8. The Course review teams as formulated in last review may kindly tie up with the heads ofthe departments for the schedule and report the same.
9. Its recommended that atleast two courses may be picked from each semester for everyprogram, for e.g... two courses each from B.Tech 2nd, 4th, 6th and 8th Sem.
10. Project and seminar plans should also be reviewed.



**MANAV RACHNA
UNIVERSITY**

(FORMERLY MANAV RACHNA COLLEGE OF ENGINEERING
NAAC ACCREDITED 'A' GRADE INSTITUTION)

Declared as State Private University under section 2f of the UGC act, 1956

Internal Quality Assurance Cell

Minutes of Meeting

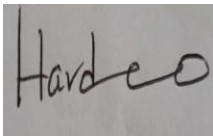
Agenda: Audit for Criteria 1 Date: February 29, 2020

AQAR, NAAC SAR (Departmental) 2019-20, Academic Audit (Criterion-1)

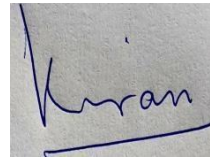
1. The Academic Audit of Criterion-1 of NAAC SAR Departmental was held on Feb.29, 2020 at 1 pm in Suk am Lab ,I-Block .
2. The IQAC in charge, Dr Charu Pathak along with its other team members Dr.D.K.Sharma, Dr.Hardeo Thakur, Dr Y.K.Sharma, Dr. Kiran Gupta, Dr. Deepa Arora and Dr. Ekta Rawat were present in the meeting.
3. The audit of Criteria 1 and 2 of the following Departments was conducted and the following observations were given:
4. Department of Mathematics was found to be filling up the information on various indicators and sub Indicators on the right lines. Except for a few lags with respect to the attachment of proofs of a few activities conducted, the document was approved by the teams.
5. Department of Chemistry: Indicator1.2.1 Front End: data needs to be furnished together in one slot(Columns 108-110and 236-244).Columns H,I,K,L,N and O there was no data; For Indicator 1.2.2 columns D, E, F, Land M were empty. In Column J, more clarity of data was required. For Ph.D. there was no data. Indicator 1.3.4: Back End : Documents were missing
6. Department of Management: Indicator1.2.1No data in columns H, I,J,K,L and M Indicator 1.3.2 Back End: No data found.
7. Department of Physics: Indicator 1.2.1: Result of Formula and feedback of stakeholders was missing. Indicator 1.2.2 and 1.3.4: Again result of formula was missing. In Indicators 1.3.2 and 1.3.3 no data was found.
8. Department of Law: Front End: Indicator 1.2.1, 1.3.2, 1.3.3 and 1.3.4 : Result of formula was missing.
9. Department of ECE: Front End: 1.2.1 : Result of formula was missing, Date of Academic approval missing ((J column), Back End: No folder for ECE supporting documents.

10. Department of CST: Date of Academic approval missing ((J column), Back End: No folder for CST supporting documents.
11. Department of ME:: Date of Academic approval missing ((J column), Back End: No folder for ME supporting documents.
12. Department of Education: Front End: Indicator 1.2.1, 1.3.2, 1.3.3 and 1.3.4 : Result of formula was missing.

The meeting ended with a happy note with the commitment to hold such meetings of members on regular basis to cater to the required quality in the document.

A square image showing a handwritten signature in blue ink that reads "Hardeo".

Dr Hardeo Kr. Thakur

A square image showing a handwritten signature in blue ink that reads "Kiran".

Dr kiran Gupta

MANAV RACHNA UNIVERSITY
(A UNIT OF UTHAN EDUCATIONAL TRUST)
SECTOR - 43, DELHI SURAJKUND ROAD, FARIDABAD
BALANCE SHEET AS ON 31ST MARCH 20

	SCHEDULE	AMOUNT (Rs.)
<u>SOURCES OF FUNDS :</u>		
DEVELOPMENT FUND		2,43,84,000
SECURED LOANS	A	25,22,71,057
UNSECURED LOANS		20,79,46,096
LONG TERM LIABILITIES	B	55,64,830
TOTAL		49,01,65,983
<u>APPLICATION OF FUNDS :</u>		
<u>FIXED ASSETS</u>		
GROSS BLOCK	C	1,00,75,50,088
LESS : DEPRECIATION		54,88,12,107
NET BLOCK		45,87,37,981
CWIP		1,02,09,996
		46,89,47,977
<u>CURRENT ASSETS</u>		
FIXED DEPOSIT WITH BANK	D	1,16,23,772
STOCK OF CONSUMABLE ETC.		22,65,583
RECEIVABLES	E	26,14,861
CASH & BANK BALANCE		5,03,72,015
ADVANCES	F	79,36,383
		7,48,12,614
<u>CURRENT LIABILITIES & PROVISIONS</u>		
SUNDRY CREDITORS		5,20,49,655
EXPENSES PAYABLE	G	1,93,03,979
OTHER CURRENT LIABILITIES	H	29,61,13,093
		36,74,66,727
NET CURRENT ASSETS		(29,26,54,113)
DEFERRED REVENUE EXPENDITURE		7,19,07,900
EXCESS OF EXPENDITURE OVER INCOME		24,19,64,219
TOTAL		49,01,65,983

SIGNIFICANT ACCOUNTING POLICY AND SCHEDULE FORMING
PART OF BALANCE SHEET
AS PER OUR REPORT OF EVEN DATE ATTACHED IN FORM OF 10B

FOR AKHILESH CHANDRA GUPTA
CHARTERED ACCOUNTANTS

AKHILESH CHANDRA GUPTA
(PROPRIETOR)

MEMBERSHIP No. : 085901

PLACE : FARIDABAD

DATE: 24th Nov, 2020

For MANAV RACHNA UNIVERSITY

(Auth. Signatory)

(Auth. Signatory)

MANAV RACHNA UNIVERSITY
(A UNIT OF UTHAN EDUCATIONAL TRUST)
SECTOR - 43, DELHI SURAJKUND ROAD, FARIDABAD
INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31.03.2020

	SCHEDULE	AMOUNT (Rs.)
INCOME :		
FEES FROM STUDENTS		36,04,91,296
INTEREST INCOME		4,33,934
TOTAL OF INCOME		36,09,25,230
EXPENSES :		
PERSONNEL EXPENSES	I	16,46,40,671
STUDENT WELFARE & TRAINING EXPENSES	J	3,42,75,084
BOOKS & SUBSCRIPTION CHARGES		28,26,038
IT & COMMUNICATION		10,60,212
RESEARCH & DEVELOPMENT EXPENSES		15,49,054
OPERATIONAL & ADMINISTRATIVE EXPENSES	K	8,99,74,245
FINANCIAL EXPENSES	L	3,53,62,293
TOTAL OF EXPENSES		32,96,87,597
EXCESS OF INCOME OVER EXPENDITURE		3,12,37,633
DEPRECIATION	C	4,99,35,441
EXCESS OF EXPENDITURE OVER INCOME		(1,86,97,808)
SURPLUS \ (DEFICIT) BROUGHT FORWARD FROM LAST YEAR		(22,32,66,411)
BALANCE CARRIED TO BALANCE SHEET		(24,19,64,219)

SIGNIFICANT ACCOUNTING POLICY AND SCHEDULE FORMING
PART OF INCOME AND EXPENDITURE ACCOUNT
AS PER OUR REPORT OF EVEN DATE ATTACHED IN FORM OF 10B

FOR AKHILESH CHANDRA GUPTA
CHARTERED ACCOUNTANTS

A. C. GUPTA
Chartered Accountant
Membership No. 85901


AKHILESH CHANDRA GUPTA
(PROPRIETOR)

MEMBERSHIP No. : 085901

PLACE : FARIDABAD

DATE: 24th Nov, 2020

For MANAV RACHNA UNIVERSITY


(Auth. Signatory)


(Auth. Signatory)

MANAV RACHNA UNIVERSITY
(A UNIT OF UTHAN EDUCATIONAL TRUST)
SCHEDULES FORMING PART OF BALANCE SHEET

AS ON
31ST MARCH, 2020

SCHEDULE-"A"	
SECURED LOANS	AMOUNT (Rs)
HDFC BANK LTD LOANS	18,93,25,758
HDFC BANK OD A/C	5,86,59,676
HP FINANCIAL SERVICES	41,65,296
KOTAK MAHINDRA PRIME LTD.	1,20,327
TOTAL	25,22,71,057

SCHEDULE-"B"	
LONG TERM LIABILITIES	AMOUNT (Rs)
SECURITY FROM STAFF	13,49,830
ALUMNI FUND	31,15,000
INSTITUTION OF LATE SH.LAHOTI(FUND FOR PRIZE MEDAL)	11,00,000
TOTAL	55,64,830

SCHEDULE-"D"	
FIXED DEPOSIT	AMOUNT (Rs)
FIXED DEPOSIT WITH BANK	1,03,00,000
INTEREST ACCURED ON FDR	13,23,772
TOTAL	1,16,23,772

SCHEDULE-"E"	
RECEIVABLES	AMOUNT (Rs)
FEES RECEIVABLES FROM STUDENTS	26,05,763
OTHER RECEIVABLE- NISD	9,098
TOTAL	26,14,861

SCHEDULE-"F"	
ADVANCES	AMOUNT (Rs)
ADVANCE TO SUPPLIER	36,44,679
ADVANCE TO STAFF	1,67,671
SECURITY DEPOSIT	12,00,000
PREPAID EXPENSES	26,45,400
TDS RECEIVABLE FROM I.T. DEPTT.	2,00,258
TDS RECEIVABLE FROM NBFC	78,375
TOTAL	79,36,383

For MANAV RACHNA UNIVERSITY


(Auth. Signatory)


(Auth. Signatory)

MANAV RACHNA UNIVERSITY
(A UNIT OF UTHAN EDUCATIONAL TRUST)

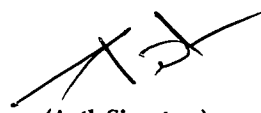
SCHEDULES FORMING PART OF BALANCE SHEET


AS ON
31ST MARCH, 2020

SCHEDULE-"G"	
EXPENSES PAYABLE	AMOUNT (Rs)
TDS PAYABLE	26,40,839
E.S.I. PAYABLE	6,533
P.F. PAYABLE	62,600
AUDIT FEE PAYABLE	2,25,000
SALARY & WAGES PAYABLE	1,31,72,229
OTHER EXPENSES PAYABLE	31,96,778
TOTAL	1,93,03,979

SCHEDULE-"H"	
OTHER CURRENT LIABILITIES	AMOUNT (Rs)
SECURITY FROM STUDENTS	70,55,230
BANK ACCOUNTS	7,76,22,243
FEE RECEIVED IN ADVANCE	77,85,215
BRANCH & DIVISION	20,36,50,405
TOTAL	29,61,13,093

For MANAV RACHNA UNIVERSITY


(Auth. Signatory)


(Auth. Signatory)

MANAV RACHNA UNIVERSITY
(A UNIT OF UTHAN EDUCATIONAL TRUST)

SCHEDULES FORMING PARTS OF INCOME & EXPENDITURE ACCOUNT


FOR YEAR ENDED
31ST MARCH, 2020

SCHEDULE-"I"	
PERSONNEL EXPENSES	AMOUNT (Rs)
SALARY TO FACULTY INCLUDING ALL ALLOWANCES	10,81,70,657
SALARY TO NON TEACHING STAFF	2,57,45,158
CONTRACTUAL STAFF	1,78,03,975
VISITING FACULTY(INCLUDING KNOWLEDGE PARTNER)	1,08,01,441
EMPLOYER SHARE TO P.F.	3,84,489
EMPLOYER SHARE TO ESI	67,503
GRATUITY	9,86,674
STAFF WELFARE EXPENSES	6,80,774
TOTAL	16,46,40,671

SCHEDULE-"J"	
STUDENT WELFARE & TRAINING EXPENSES	AMOUNT (Rs)
STUDENT WELFARE EXPENSES	58,20,012
SPORTS EXPENSES	9,72,065
SCHOLARSHIP & DISCOUNTS	2,23,99,991
STUDENT TRAINING & LAB CONSUMABLES	50,83,016
TOTAL	3,42,75,084

For MANAV RACHNA UNIVERSITY


(Auth. Signatory)


(Auth. Signatory)

MANAV RACHNA UNIVERSITY
(A UNIT OF UTHAN EDUCATIONAL TRUST)

SCHEDULES FORMING PARTS OF INCOME & EXPENDITURE ACCOUNT

FOR YEAR ENDED
31ST MARCH, 2020

OPERATIONAL & ADMINISTRATIVE EXPENSES	SCHEDULE-"K" AMOUNT (Rs)
ELECTRICITY EXPENSES	1,76,49,851
REPAIR AND MAINTENANCE - BUILDING	35,86,565
REPAIR AND MAINTENANCE - OTHER	27,51,231
MAINTENANCE - HEALTH & CLEANING	26,34,505
COMMUNITY OUTREACH EXPENSES	1,89,109
ACCREDITATION/INSPECTION/AFFILIATION CHARGES	27,15,254
STUDENT EVALUATION & ASSESSMENT	1,15,68,454
STUDENT SEMINARS & EVENTS	1,22,92,694
FACULTY & STAFF DEVELOPMENT	18,92,890
CONVEYANCE AND TRAVELLING	2,29,534
PROFESSIONAL AND CONSULTANCY CHARGES	13,99,967
PRINTING AND STATIONERY	38,30,048
RENT	15,73,712
RATES & TAXES	5,07,470
MESS EXPENSES	1,16,08,453
INSURANCE EXPENSES	8,19,426
STUDENT ADMISSION EXPENSES	1,41,58,851
MEMBERSHIP & SUBSCRIPTION	2,22,982
AUDIT FEE	2,50,000
OTHER ADMINISTRATIVE EXPENSES	93,249
TOTAL	8,99,74,245

FINANCIAL EXPENSES	SCHEDULE-"L" AMOUNT (Rs)
INTEREST ON SECURED LOAN	1,77,90,583
INTEREST ON UNSECURED LOAN	1,49,14,540
LOAN PREPAYMENT/PROCESSING CHARGES	23,47,118
BANK CHARGES	3,10,052
TOTAL	3,53,62,293

For MANAV RACHNA UNIVERSITY



(Auth. Signatory)



(Auth. Signatory)


MANAV RACHINA UNIVERSITY
(A UNIT OF UTHAN EDUCATIONAL TRUST)
SECTOR - 43, DELHI SURAJKUND ROAD, FARIDABAD
SCHEDULE OF FIXED ASSETS AS ON 31.03.2020

DETAIL OF ASSETS	DEP. RATE	GROSS BLOCK				DEPRECIATION BLOCK			NET BLOCK		
		GROSS		ADDITION		AS ON 01.04.19	FOR THE YEAR	TRANSFER SALE	AS ON 31.03.20	WDV AS ON 31.03.2020	WDV AS ON 31.03.2019
		AS ON 01.04.19	BEFORE & ON 01.10.19	AFTER 01.10.19	TRANSFER SALE						
LAND	0%	-	-	-	-	35,65,44,758	3,90,78,404	-	39,56,23,162	-	35,50,66,019
BUILDING	10%	70,96,10,777	4,87,104	8,72,43,358	63,90,760	79,09,50,479	-	-	2,75,21,370	5,74,780	9,57,967
EQUIPMENTS:											
LAB EQUIPMENTS:											
Computer Lab	40%	2,80,96,150	-	-	-	2,80,96,150	3,83,187	-	2,75,21,370	5,74,780	9,57,967
Electronic Lab	15%	77,22,999	-	8,26,921	-	85,49,920	2,98,564	-	64,44,594	21,05,326	15,76,969
Mechanical Lab	15%	1,08,96,180	-	-	-	1,08,96,180	4,57,915	-	83,01,326	25,94,854	30,52,769
Physics Lab	15%	18,66,662	14,008	4,61,055	-	23,41,725	1,58,728	-	12,11,738	11,29,967	8,13,652
Chemistry Lab	15%	44,88,339	18,275	-	-	45,06,614	4,76,720	-	18,05,199	27,01,415	31,59,860
Research & Development Lab	15%	63,79,650	69,21,030	-	-	1,33,00,680	15,71,762	-	43,94,026	89,06,654	35,57,386
OFFICE & ELECTRIC EQUIPMENTS	15%	5,63,30,831	2,56,400	11,87,224	-	5,77,74,455	28,39,215	-	4,10,91,958	1,66,82,497	1,80,78,088
COMPUTERS	40%	1,61,92,741	4,93,621	29,02,498	-	1,95,88,860	10,98,728	-	1,64,89,518	30,99,342	8,01,951
SOFTWARE	40%	36,99,698	-	-	-	36,99,698	1,98,172	-	34,02,439	2,97,259	4,95,431
VEHICLES:											
Car	15%	22,03,728	-	-	14,77,177	7,26,551	85,640	-	12,56,538	4,85,296	7,91,575
Van	15%	1,99,717	-	-	1,99,717	1,99,717	-	-	1,99,717	-	-
Scooter	15%	48,828	-	-	48,828	-	-	-	48,828	-	-
Motor Cycle	15%	61,185	-	-	61,185	-	-	-	56,319	-	4,866
Cycle	15%	1,872	-	-	1,872	-	-	-	1,872	-	-
FURNITURE & FIXTURES	10%	5,01,93,814	26,18,922	10,13,915	-	5,38,26,651	25,59,673	-	3,02,82,640	2,35,44,011	2,24,70,847
LIBRARY BOOKS	40%	1,28,54,466	45,973	3,92,286	-	1,39,92,125	7,28,733	-	1,20,02,882	12,89,243	15,80,317
TOTAL (A)		91,08,47,637	1,08,54,733	9,40,27,257	81,79,539	1,00,75,50,088	4,99,35,441	15,63,274	54,88,12,107	45,87,37,981	41,04,07,697
CWIP (B)	0%	57,32,489	3,53,22,220	5,14,14,015	8,22,58,728	1,02,09,996	-	-	-	1,02,09,996	57,32,489
TOTAL (A+B)		91,65,80,126	4,61,76,953	14,54,41,272	90,02,12,267	1,01,77,60,084	4,99,35,441	15,63,274	54,88,12,107	46,89,47,977	41,61,40,186

NOTE: DEPRECIATION HAS BEEN PROVIDED ON W.D.V. METHOD AS PER RATE SPECIFIED IN IT ACT, 1961
PREVIOUS YEARS FIGURES HAS BEEN RE-ARRANGED/RECLASSIFIED.

FOR AKHILESH CHANDRA GUPTA
CHARTERED ACCOUNTANTS

A. C. GUPTA
Chartered Accountant
AKHILESH CHANDRA GUPTA
(PROPRIETOR)
MEMBERSHIP No.: 085901
PLACE: FARIDABAD
DATE: 24th Nov, 2020

For MANAV RACHINA UNIVERSITY

(Auth. Signatory)

(Auth. Signatory)

EDITORIAL TEAM

- | | |
|---|--------------------|
| 1. Prof. Sangita Banga, Dean Academics | Chairperson |
| 2. Dr. Babita Parashar, Dean-Education | Convenor |
| 3. Prof. shruti Vashisht, Dean Students Welfare | Member |
| 4. Prof. Versha Vahini, Assoc. Dean & Head-Law | Member |
| 5. Prof. Geeta Thakur, Professor & Head-CAL | Member |
| 6. Dr. Megha Mittal, Assoc. Professor | Member |
| 7. Ms. Yogita Gupta, Asst. Professor | Member |
| 8. Ms. Gaganjot Kaur, Asst. Professor | Member |