



FACULTY OF ENGINEERING AND TECHNOLOGY
MRIIRS

TECH TALK

NEWSLETTER | July 2022 - December 2022



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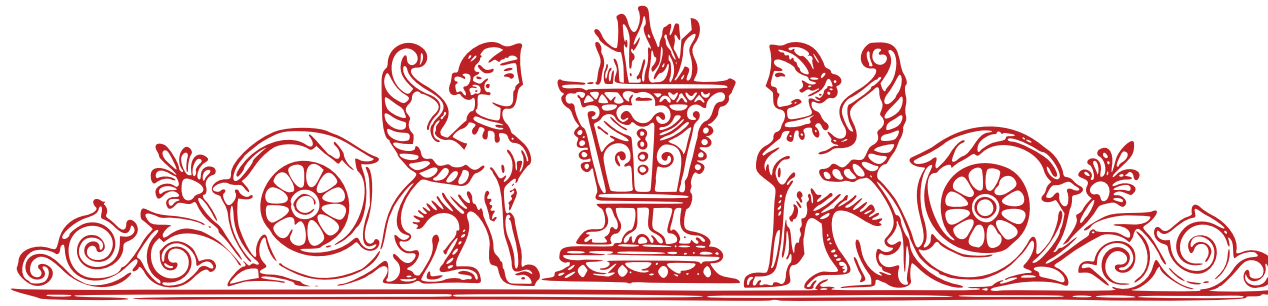
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About MRIIRS



A visible symbol of excellence, Manav Rachna stands at the forefront of academic dexterity and has many awards and accolades to its credit. Established 25 years ago, it was a brainchild of the visionary founder and empathetic philanthropist Dr. O.P. Bhalla. Commenced with only a few courses of Engineering and Technology, Manav Rachna was called CITM at its inception. Gradually, with steadfast commitment, diligence and upright intentions, it gained the status of a university and then an autonomous institution. Today, it prides itself on three national awards and a prestigious NIRF ranking. Accreditations, awards and collaborations abound, Manav Rachna's glory stands unparalleled, thanks to the unwavering support and staunch allegiance of its stakeholders. **It is the only private university of Delhi-NCR to receive NAAC A++ Accreditation. First in Haryana amongst private and government universities of general category to have NAAC A++ Accreditation.**

At Faculty of Engineering & Technology (FET), we see challenges and opportunities to make things better. For this is the time which calls to make positive changes. Our engineering courses aim to produce highly skilled engineers ready for life, ready for work and ready for world.

With a global footprint of alumni, we strive to solve the problems the world is facing. We believe in inculcating collaborative and creative problem-solving approach to design technology and develop innovative solutions to make things work better.

The work of engineers is key to meeting world's sustainable development goals including advancing technologies for clean water, green energy, high speed communications and transportation, reliable autonomous systems and safe smart sustainable products, homes and cities and more.

Tech Talk is a pinnacle of hard work and diligence of the entire editorial board.

About FET

MANAV RACHNA INTERNATIONAL INSTITUTE OF RESEARCH AND STUDIES

MAKES GIANT LEAP IN NIRF INDIA RANKINGS 2022

ENGINEERING

UNIVERSITY

OVERALL

RANK

105

RANK

101-150

RANK

151-200

FET at a glance

- Choice-based credit system with basket of Foundation, Core and Elective courses.
- Professional Core Courses of Computer Science in line with Amazon Web Services, Google & Infosys
- NBA Accredited & AICTE Approved Programmes
- Infineon Centre of Excellence nurtures India's future power electronics engineers
- Major and minor degree in chosen specialisation through extra credits in Hons. courses
- First Institute in North India with Mitsubishi Electric Advanced Lab, imparting automation skills for Industry 4.0
- Scholarship to unlock student talent



FET Accolades

- Faculty of Engineering and Technology (FET), MRIIRS is among the **Top 4 Private Engineering Institutions of North India**
- FET, MRIIRS ranked **118** among the Top Engineering Institutions by MHRD, GOI
- Top 7 Private Engineering Institutions** all over India as per Times Engineering Institute Rankings 2021
- No. 7 for placements** among Private engineering institutions of the country
- MRIIRS ranked among **Top Institutions** by Ministry of Education's NIRF Ranking 2021
- FET, MRIIRS has been rated **AAA+** in the **Best Engineering Colleges Survey 2020** by Careers 360.
- FET, MRIIRS is among the **Top 5 Private Engg colleges of North India** as per the **Week Best College Survey**.
- MRIIRS has been bestowed with the '**Most Innovative University in Research and Studies**' by All India Council of Human Rights, Liberties and Social Justice (AICH LS).



Program Highlights

- Faculty of Engineering and technology fosters a learning environment equipped with **state-of-the-art infrastructure facilities**
- We strive to train engineers to tackle society's challenges and makes the world a better place to live
- About **25+** programs are offered comprising of **UG & PG. 150+** research scholars are pursuing **PhD** in various disciplines across different departments
- Motivated, well qualified faculty members with vast experience in teaching, research, consultancy and industry.
- Industrial Training** has been embedded in the curricula for all the programmes
- Choice Based Credit System (CBCS)** with a basket of elective courses catering to the industry demands including Discipline Electives, Generic Electives, Open Electives
- 150+** research papers published

MRIIRS has been ranked in

Band A (Rank between 6 & 25)

under Private or Self-Financed Universities category

in the



released by the

Ministry of Education, Gov.



UGC has granted

12 B STATUS

to Manav Rachna International Institute of Research and Studies



in affirmation to its strong focus in **RESEARCH AND DEVELOPMENT**



Departmental Achievements

Say No to Crackers - Green Oath

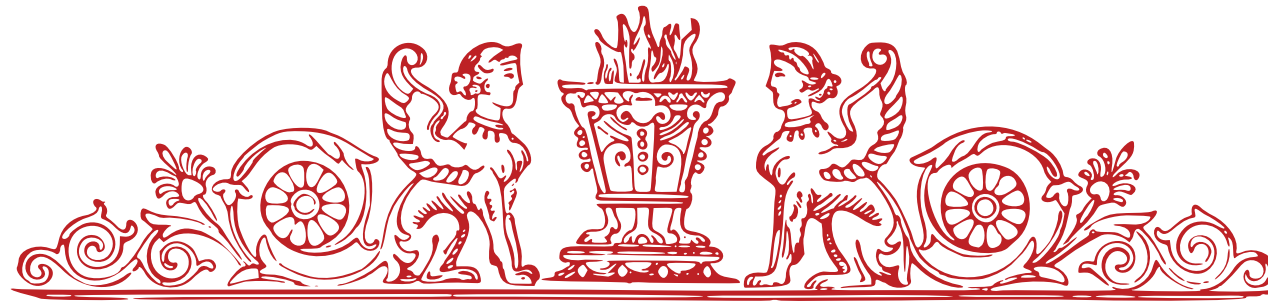
In order to spread awareness about preventing air pollution thereby protecting environment, an Anti-Cracker Pledge was taken by students and faculty members of Department of Applied Sciences on 20.10.2022. They took pledge in their respective classrooms. A group discussion was also organized in classrooms wherein they spoke about ways to celebrate an Eco-friendly Diwali and how to minimize environmental pollution.



Orientation Program

The Orientation program for the first-year admitted students of UG program of FET, MRIIRS for the academic session 2022-23 was organized from 22nd August 2022 – 9th September 2022 under which various activities were planned. **Dr. Sanjay Srivastava, MD, MREI and VC, MRIIRS; Lt. General DG RK Anand, MRIIRS; Dr. Pardeep Kumar, PVC, MRIIRS** blessed and guided the students on the new horizon. Overall, the whole program was successful attempt in making newly joined students feel comfortable and making them work towards excellence.





Train the Trainer Programme on Electric Vehicle Technology (TTP)

Day 1 (04 July 2022) - Introduction

Department of Automobile Engineering and Electric One Mobility Private Limited (EOMPL) jointly organized three day TTP on Electric Vehicle Technology for Skill Next Programme Level-1 from 4th to 6th July 2022. The people present from Electric One mobility limited and Jeetsons Pvt Ltd. (JSPL) were Ms. Sushma Tripathi, 1 Mr. Ajay Rawat, Mr. Dharmendra Singh (EOMPL), Mr. Satyendra Pal (MDJSPL) and Mr. Harish Sharma (JSPL). Four Faculty members Dr. Nitin Waghmare, Dr. Amarinder Kaur, Mr. Prateek Mittal and Dr. Gurpreet Singh Matharou were imparted training in the emerging area of Electric Vehicles.



Day 2 (05 July 2022) - Visit to Lectrix

Established in the year 1988, Lectrix EV Pvt Ltd are the leading, Manufacturer of an extensive array of, Electric Three-Wheeler Rickshaw, Electric Rickshaw, etc. Mr. Naveen Kumar (AVP- Manufacturing and Quality, Lectrix EV Pvt. Ltd)



Day 3 (06 July 2022) - Visit to I Power

I Power is one of India's most promising names in the green energy segment. The state-of-the-art manufacturing facility at Kundli, Haryana is IMS certified. Team from Manav Rachna was warmly greeted by Mr. Apte (Quality-Head).

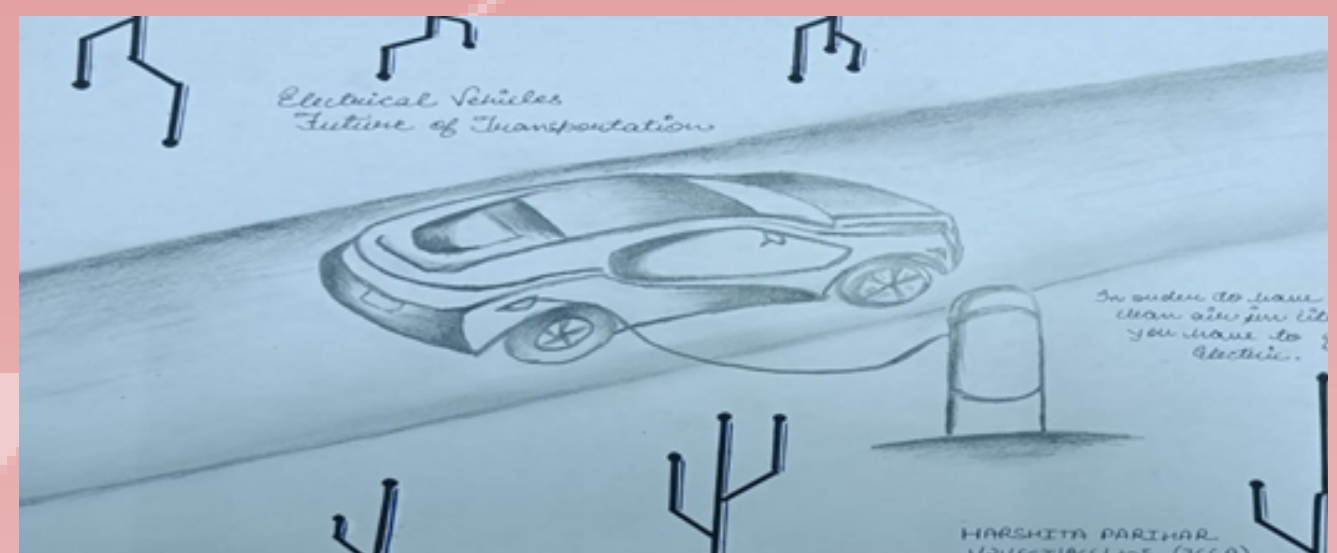
Electric Vehicle Drawing Competition

Under the Anubhuti-22, An **Electric Vehicle Drawing Competition** was organised on Nov 10, 2022. The event was aimed at assessing students graphical designing abilities as well as honing their talent in learning, exploring, and designing. The workshop covered the fundamentals of drawing with a mix of innovativeness and creativity. Dr. Gurpreet Singh Matharou (Asst.Professor, Automobile, MRIIRS) coordinated the event. The students showcased their capabilities to represent their knowledge, the feelings they wish to evoke, and the message their designs the futuristic EVs.

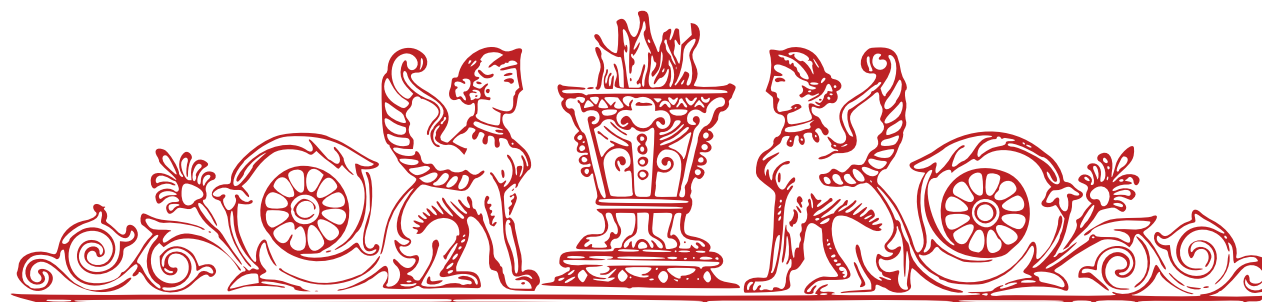
School Winner 1st Position - Shagun Rajput - Shiv Nadar School, Faridabad



University Winner 1st Position - Gaurav Saxena



University Winner 2nd Position - Harshita Parihar



Emerging Technologies and Enabling Tools for Eco-Friendly Management of Diseases in Medicinal & Aromatic Plants (EEEDMAP 2022)

Department of Biotechnology and MR Centre For Medicinal Plant Pathology (MR-CMPP), organized a two-day National Conference on “Emerging Technologies and Enabling Tools for Eco-Friendly Management of Diseases in Medicinal & Aromatic Plants” (EEEDMAP 2022) which was supported by the National Medicinal Plants Board, Ministry of AYUSH, Government of India. The inaugural session was graced by the Chief Guest Dr. Chandrashekhar Sanwal, Deputy CEO, IFS, NMPB, Ministry of AYUSH, GOI. The ceremony also witnessed the presence of Hon’ble Keynote Speaker, Prof. P.C. Trivedi, Former Vice Chancellor of 5 Universities; Dr. Sanjay Srivastava, Vice Chancellor, MRIIRS; Dr. Pradeep Kumar, Pro-Vice Chancellor and Dean, Faculty of Engineering and Technology; Mr. R. K Arora, Registrar MRIIRS; Dr. Nidhi Didwania, Director, MR-CMPP (Convener) and Dr. Manu Solanki, Head, Department of Biotechnology.



Dr. Jeetendra Vaishya, National Medicinal Plants Board (NMPB) highlighted the recommendations made by the participants: Strategies should be in place for the post-harvest management of the medicinal plant produce; Need of inventorization and taxonomic identification of biodiversity in the Aravalli ranges for conservation of Medicinal Plants; and Special attention is to be made for the utilisation of resources (agro-economics).

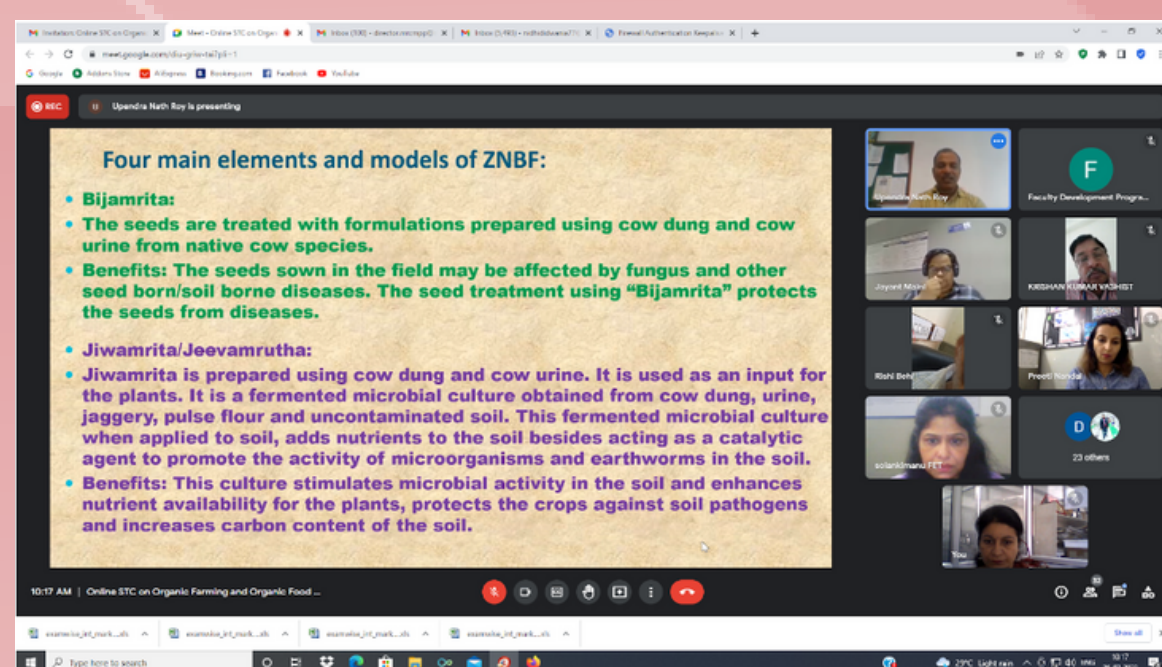
Prof. P.C. Trivedi gave an insight about the phytodiversity and talked about the Eco-friendly Management of Diseases of Medicinal & Aromatic Plants. Dr. Sanjay Srivastava emphasized the importance of traditional knowledge and our treasure trove. Prof. (Dr.) Nidhi Didwania, Convener, highlighted the objective of the conference “Health of Healthy Plants”. Following this Dr. A. A. Ansari, Former Scientist E, Botanical Survey of India (BSI), famously known as the “Crotalaria Man”, delivered a detailed overview on plant pathogens on different species of medicinal plants.

Department of Biotechnology and School of Law, MRU organised a collaborative event on the theme “MITAHARA”. The program started with an introduction of the event and panellists by Dr. Kapila Kumar. Furthering, the discussion Mr. Sidhharth Manvati, founder of CLEAR MEAT, talked about alternative food movements and how his company is contributing to lab grown meat products, he also talked about the four major factors that a company which is producing alternative meat considers i.e taste, texture, smell and price. Moving further, Dr. Maneesha Singh, Principal Scientist from King’s College, London talked about how her start-up is using AI and drones to monitor crop fields to identify the areas to be worked upon in context of plant diseases.

Panel Discussion on Alternative Foods



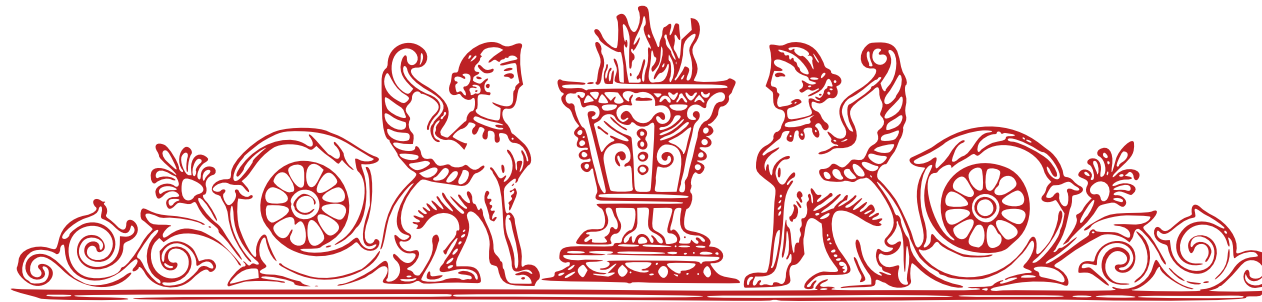
Organic Farming and Food Marketing



A Five days’ faculty development program on “Organic Farming and Food Marketing” in association with NITTTR, Chandigarh was organized by the Department of Biotechnology from 25-29 July, 2022. The target audience for the FDP were faculty members. The aim of the FDP was to provide opportunities to educate the young as well as senior faculty members about the organic farming. The week-long FDP covered various topics and challenges related to organic farming.

Three sessions per day were conducted by renowned experts. Resource persons for the FDP were - Prof. U. N. Roy, Professor, NITTTR Chandigarh, Dr. Aranya Agriat, Dr. Saurabh Sharma, Director of Singh Apple Orchards.

The topics covered included organic permaculture, scenario of organic food Market in the World, Leading players in Global organic farming market, organic production in India, Sikkim model of organic farming etc. The local coordinator for the FDP was – Dr. Nidhi Didwania, Professor, Department of Biotechnology,



Students' Workshop on "Learning Basic Principles of Genetics Using *Drosophila melanogaster*"

Day 1

The first day of the workshop started with an inaugural session where Dr. Prachi welcomed the students and guests followed by a discussion on the workings of ICAR-IARI and the XV Genetics Trust. The highlight of the inaugural session was the talk by Prof. Dr. R.P.Sharma (Former Director, ICAR-Indian Institute for Plant Biotechnology, New Delhi, and Chairman, XV Genetics Congress Trust). The technical session started with discussion on Mendelian Genetics by Dr. Akshay Talukdar and an introduction to *Drosophila melanogaster* as a model organism by Dr. Prachi Yadav. The 2nd technical session of the day involved experimental set-up for introducing phenotypic markers and crossing procedures in *Drosophila melanogaster*. During this session, each student learnt to distinguish between male and female *Drosophila*, identify various wing, eye color and body color mutants, collection of virgin females and setting up of crosses



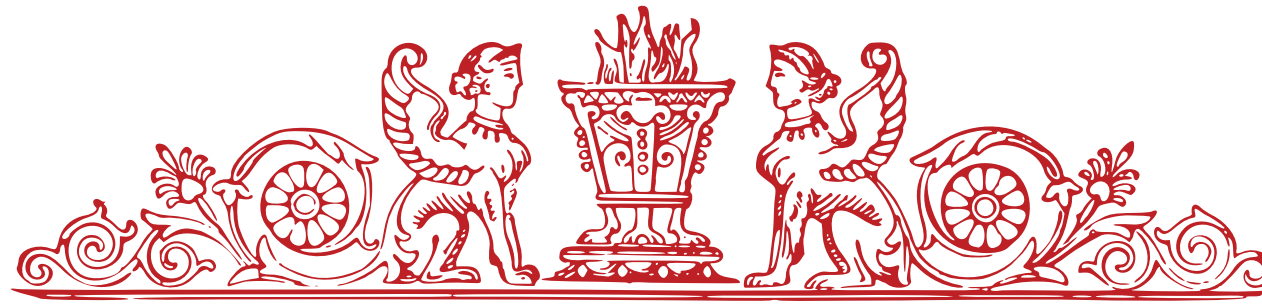
Day 2

The third technical session started with a lecture on "Genetics of maize cob" by Dr. Firoz Hossain (Principal Scientist, IARI, New Delhi). This was followed by an experiment of Genetics of PTC tasting where students were classified as tasters and non-tasters on the basis of their ability to taste Phenylthiocarbamide (PTC). The data was collected and ratios were calculated. The 2nd experiment was the preparation of polytene chromosomes by dissecting salivary glands from the third instar larvae of *Drosophila melanogaster*. This was followed by the scoring of F2 population of the crossed setup the previous day and further validation of the results using chi-square test. A field trip was organized by Dr. Muraleedhar Aski where he discussed about different varieties of rice crops and the role of plant biotechnology in the improvement of crop yields. It was a very interactive session. The 2nd day of the workshop ended with the valedictory function where Dr. Prachi Yadav, presented a brief report on the workshop. This was followed by comments from Dr. Jayant Maini and Dr. Vineeta Sharma and distribution of certificates to the students of Department of Biotechnology, Faculty of Engineering and Technology, Manav Rachna International Institute of Research and Studies.

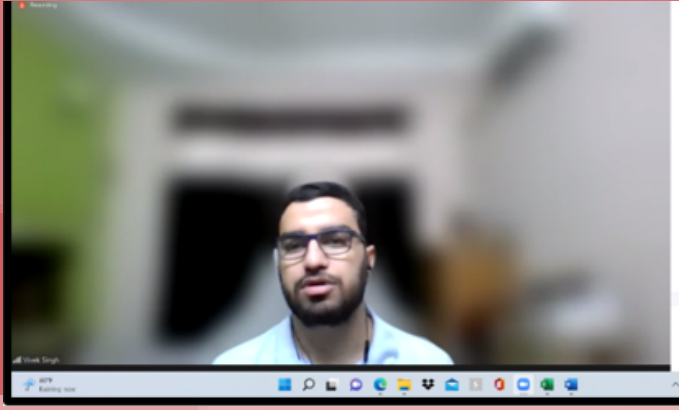
Career opportunities in Patents & Copyright Industry

An Expert talk was organized by Department of Biotechnology on "Career Opportunities in Patents & Copyright Industry". The talk was delivered by **Mr. Rahul Bagga** (Alumni), **Founder and Managing Director, Aumirah**. He explained the importance of Intellectual Property Rights in these days. He briefed about the Intellectual Property Rights which in general refers to the set of intangible assets including invention, creation, and contribution to the contemporaneous field of knowledge which is owned and legally protected by an individual or company from the outside use or implementation without approved consent. He also mentioned the different types of IPR and its importance in different areas. There are four types of intellectual property rights (IP): patents, trademarks, copyrights, and trade secrets. Followed by it, he spoke about the job opportunities in this field. Further he emphasized on different work area where one can work. He elaborated the demand of IPR professional in product development company, hospitals, R&D labs, law firms.





Zonal Championship cum Training Program



The Department of Civil Engineering in collaboration with E – Cell, IIT Kharagpur and Makeintern, organized a Zonal Championship cum Training Program on “2D Drafting and Design”. The software tool used for the training program was Autodesk AutoCAD 2022. Thirty five students from different universities participated in this event. Four students were selected for the finale round: Mr. Shiv Verma & Mr. Afzal M. Tech (Structural Engineering, I Semester), FET, MRIIRS Ms. Aditi Koundal : B. Arch (Architecture and Design, V Semester), FAD, MRIIRS Mr. Veludandi Nithin : B. Tech (Civil Engineering, V Semester), FET, MRIIRS

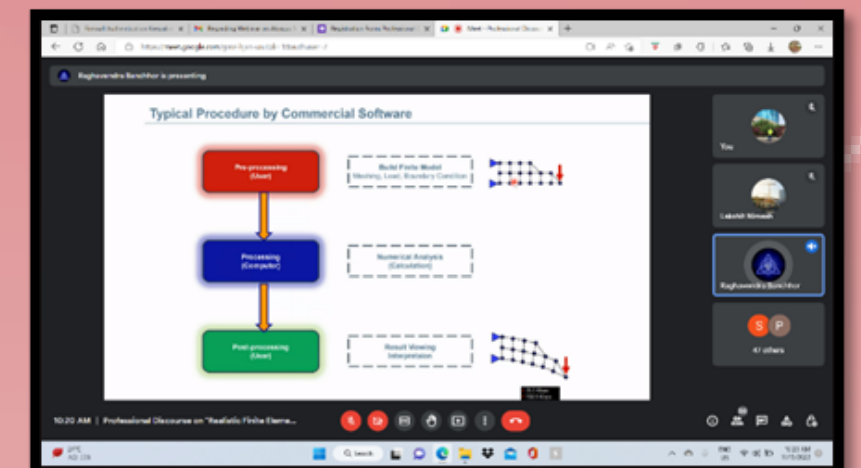
Short Term Course on “Earthquake Risk Management”

The Department of Civil Engineering was earmarked to be a Nodal centre for Short Term ICT Program on "Earthquake Risk Management" organized by NITTTR Chandigarh from October 10th to 14th 2022. The aim of this STTP was to provide an opportunity to participants to understand the recent trends and developments in the field of earthquake risk management. A total of 31 faculty members from MRIIRS, MRU, MNIT and other reputed Institutes attended the event.



Professional Discourse on "Realistic Finite Element Analysis with Abaqus"

The Department of Civil Engineering, organized a Professional Discourse on "Realistic Finite Element Analysis with Abaqus" on November 15, 2022. 78 participants of various organizations around India attended the event. The eminent speaker of the event was Mr. Raghavendra Banchhor, Senior Technology Specialist, Finite Element Analysis, Vias 3D. He started his session by discussing the various types of methods of finding the solution of Engineering Problems, followed by the historical background of Finite Element Analysis (FEA). He gave a detailed explanation on different core applications of the Abaqus software including analysis of Tall Buildings, Bridges, Dams, Foundations and Damage Modelling, Automotive & Aerospace Applications, Oil & Gas Applications.



Seminar on “Strategies to crack GATE and other Competitive Exams”

The Sustainable Squad of the Department of Civil Engineering, Faculty of Engineering and Technology, MRIIRS organized a Seminar on “Strategies to crack GATE and other Competitive Exams” on September 26, 2022 in association with MADE EASY with the aim to introduce them with the wide range of career opportunities.



The Sustainable Squad, Department of Civil Engineering, organized a Technical Poster Presentation on “Futuristic Technologies” for celebrating Engineer’s Day 2022 under “Techniek 2k22” .

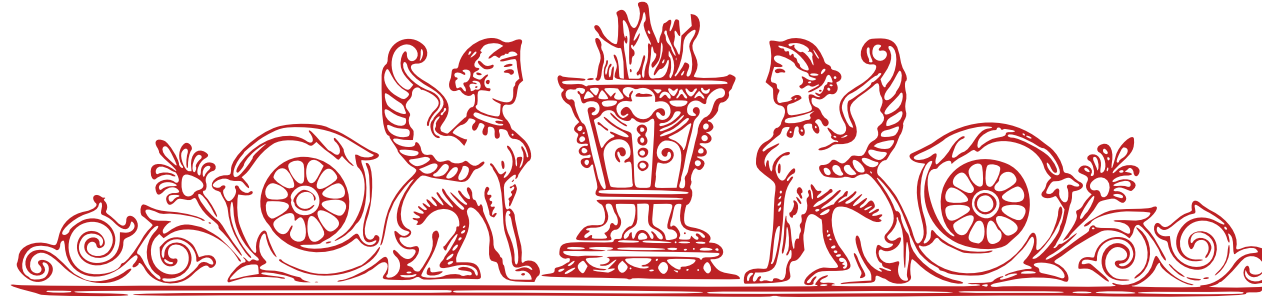
I Position : Mr. Aekeshwar Saxena and Mr. Yash Sisodia
II Position : Mr. Atif Alam and Mr. Nawahat Hussain
III Position : Ms. Saloni Sharma and Mr. Veludandi Nithin

Techniek 2k22

Site Visit to Ready Mix Concrete (RMC) Plant

On 21 September 2022, 51 students of Civil Engineering Department (B.Tech and M.Tech students), Mechanical Engineering Department and Architecture Department, along with 3 faculty members visited the RMC plant, Global Industrial Park, Faridabad. The main purpose of this visit was to be familiarize the students with the technical know-how of the RMC plant.





Induction Program

Department of Computer Science and Engineering (CSE), Faculty of Engineering and Technology organized an induction program. The first session, Introduction to MS Office was divided into Introduction to MS Word, MS Excel, and MS PPT. The MS Word introduction was given by Ms. Ranjeeta Mittal with a small activity of Certificate making and Ms. Shefali Singhal with a small activity of CV making.



Department of Computer Science and Engineering(CSE), Faculty of Engineering and Technology, organized Department Lab Activity for 1st semester students in Week 2 Day 3 of Induction Program, September 1, 2022 around 60 students participated.

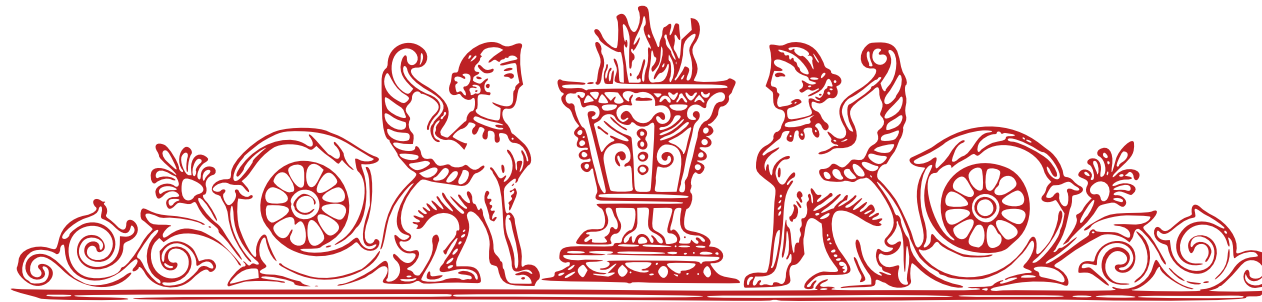
Staff Development Programme on MS Office & Soft Skills

Department of Computer Science and Engineering(CSE), Faculty of Engineering and Technology and Career Development Centre organized a 5 days Staff development programme on MS Office & Soft Skills from 18th July to 22nd July, 2022

Programme Objectives:

- To provide support to facilitate enhancement in areas of computer literacy, soft skills & personality development.
- To cover areas such as communication skills, time management and other relevant issues to keep pace with the changing scenario in any work environment.





“Workshop by Keyword Studios for AAA Gaming”

The workshop by "Keyword Studios for AAA Gaming" was conducted on 26th August 2022. **97 students of B.Tech 3rd, 5th and 7th semester** attended the event. Resource persons were **Mr. Ajay Shekhar**, Technical Director from Keyword India, and **Mr. Phil Owen**, Head of Engineering, **D3T Keyword Studio, United Kingdom**. They discussed the big career opportunity within the engineering eco-system in India and also how commonly acquired skills through the existing course curriculum can be fine-tuned to be eligible for one of these. The main objective of the talk was to provide the students with exposure to Entrepreneurship and Career opportunities in the Gaming Technology field. Overall, the workshop inspired all the participants to further explore it on their own.



Cyber Security Hackathon

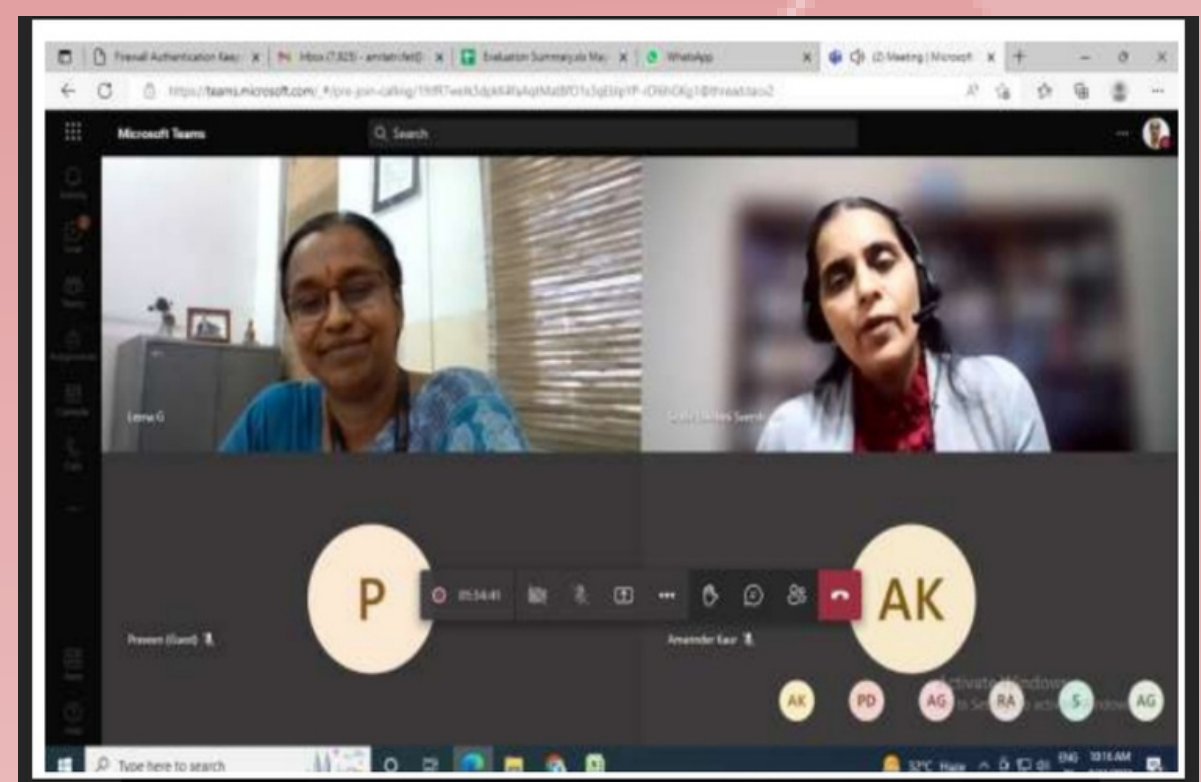
Cyber Security Hackathon Capture the Flag (CTF) was organized by Guru Govind Singh University. Following Students of B.Tech CSE-Data Forensics and Cyber Security), MRIIRS stood 1st:

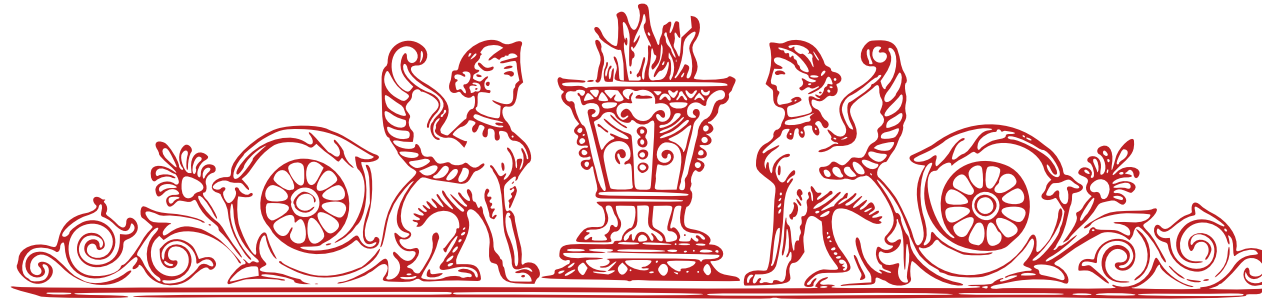
Aishwarya Raj
Derick Johnson
Siddhant Saxena
Johnson
Saxena

Electrical &
Electronics
Engineering

“Lecture on Smart Grid Analytics”

The Department of Electrical and Electronics Engineering organized an online expert lecture on MS Teams on the topic **“Smart Grid Analytics”** by **Dr. Sindhu Suresh, Adjunct Professor, at Columbia University, New York City, (USA)** on August 31st, 2022. Dr. Sindhu gave a motivating lecture on the different components of the Smart grid, its evolution, challenges in big data architecture and analytics the importance of collecting data from the grid and its effective utilization for studying the behavior as well as forecasting the energy usage of a region. Around 30 students attended the Lecture.





Toycathon

MRIIRS was selected as a **Nodal Centre by the Ministry of Education's Innovation Cell, AICTE** for hosting the Toycathon 2022 physical edition organized jointly by the Ministry of Education in coordination with five other Ministries viz: **Ministry of Women; Child Development, Ministry of Information; Broadcasting, Ministry of Commerce Industry, Ministry of Micro, Small and Medium Enterprises, and Ministry of Textiles.** The event kick-started on 24th May 2022 with the inaugural address given to all 5 nodal centers from AICTE headquarters by senior officials of AICTE and MIC. Toycathon focused on **conceptualizing new and innovative toys using local materials** which are economical, affordable, safe, and environment friendly, with exceptional high quality for both Indian and global markets.

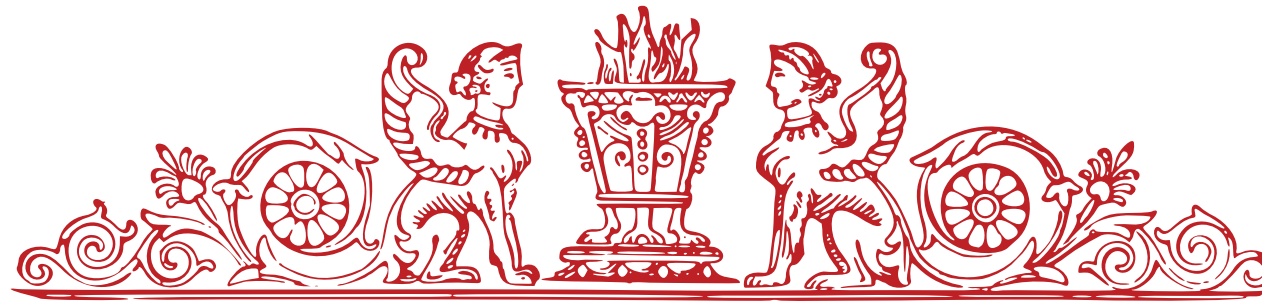
There were **34 teams** from all over India, who brought innovation and structure with a scientific temper. **Seven teams won** for their innovative idea, representation of Indian heritage, and dawning with technological progression. In addition to that Manav Rachna has also awarded Appreciation awards to four teams for their creativity and out-of-the-box thinking. **Team Tatva, Toycoon, Toyscope, Stickathi, Knowledge Hub, Spell Wizard, and Untold Stories**, all hailing from different regions like Tamil Nadu, Haryana, Punjab, Odisha, and Kerala emerged as winners. The 7 teams along with certificates of merit won 25 thousand rupees each.



Smart India Hackathon

Smart India Hackathon 2022 was jointly organized by **Ministry of Education GOI, MoE's Innovation Cell, All India Council for Technical Education, Persistent Systems, and i4c** from 25th August to 29th August 2022. The student team worked round the clock under the guidance of mentors and Ministry/Organization representatives to produce the working solution for the selected problem statements. The Valedictory Session was held in the gracious presence of **Chief Guest Dr. Abhilasha Gaur - COO-ESSCI; Guest of Honour, Dr. Devraj Singh - Vice President Technical and Standards, ESSCI; Dr. Sonal Yadav - Regional Consultant, MOE's Innovation Cell and Dr. Umesh Dutta - Director, Manav Rachna Innovation and Incubation Center.** Teams e-tech, Intruder, Carb o green/ Eco Rejuvenators, and Innovgen emerged as the winners of Senior Smart India Hackathon 2022 Hardware Edition.





Industrial Visit to Victoria Industries Private Limited

Department of Mechanical Engineering organized a **one-day visit to Victora Industries Pvt. Ltd., Ballabgarh, Faridabad** on 16th Sept 2022 for 3rd and 7th-semester students. Today, we all perfectly understand that theoretical knowledge is just not enough for a successful professional career. **It is here that by going beyond academics, industrial visit provides students with a much more relevant practical perspective of the actual workplace.**



Industrial Visit to Electric Vehicle Exhibition

The day-by-day advancement in Electric vehicles such as use of solar panels or fuel cells to charge the batteries etc. This field is having potential not only in protecting the environment from exhaust gasses but also in developing the nation's economy in the coming years. 20 students from both 2nd and 3rd years along with four faculties from the **Department of Mechanical Engineering under the aegis of FET, MRIIRS, visited EV India 2022 Expo** on 08 September 2022 organized at India Expo Centre, Greater Noida, Uttar Pradesh. In the exhibition, **various companies from India demonstrated their products such as completely assembled vehicles, plastic parts, batteries, etc.** In addition, the Smart and NextGen transport vehicles, electric passenger cars, scooters, motorcycles, cycles, etc., are also showcased.



Induction Program

The Department of Mechanical Engineering organized the orientation program. During the morning session, the students were asked to perform an activity assigned in Mechanical Workshop on carpentry which was an example set to further acquire similar skills in machining, forging, casting, welding, molding, glass cutting, etc.

On 30th August 2022, 52 students of Team D participated in the event. Likewise on 31st August 2022, 43 students of Team C, and 32 students of Team B on 01st Sept 2022. The event was conducted flawlessly with good participation from the students. The students appreciated the efforts made by the department and were very eager to learn about new emerging areas.



Faculty Member Achievements

Award & Recognition



Dr. Rajender Kumar (Mechanical Engg.)
For contribution in membership Growth,
IEI Faridabad Local Chapter



Ms. Sonal Bhugra (Civil Engg.)
For contribution as Moderator in 55th Engineer's
Day Celebrations
IEI Faridabad Local Chapter



**Dr. Ashish Grover, Dr. Richa Adlakha
Dr. Anita Khosla (EEE)**
For Best Paper Presentation from
IEI Faridabad Local Chapter
Er. S. S Bajaj Award



Dr. Sabiha Imran
With a team of two student
Ms Anjali Morya , Ms. Jaya Bhaduri
Won 1st prize in the Faculty cum startup competition
Prize Amout: Rs 25,000



Dr. Vimlesh Singh
With a team of five student
**Ms. Akshita, Mr. Anish , Mr. Sudhanshu,
Ms. Kavya , Mr. Jay**
Won 2nd prize in the Faculty cum startup competition
Prize Amout: Rs 15,000



Dr Nidhi Didwania , Dr. Shweta Mongia
with a team of two student teams
Ms. Priti Bhowmik and Mr. Sasnka Kalita
Won 3rd prize in the Faculty cum startup
competition
Prize Amount: Rs 10,000



Dr. Gurpreet Singh Matharou
Awarded Best Performing Mentor by IIT Madras for
his contribution in NPTEL online certification
course "Rapid Manufacturing."



Dr. Nitasha Soni
Women Researcher Award from NSO

Karmasyu Kaushalam Puruskar Best Teacher Award 2022



Dr. Jyoti Chawla
(Department of Applied Sciences)



Dr. Sabiha Imran
(Department of Biotechnology)



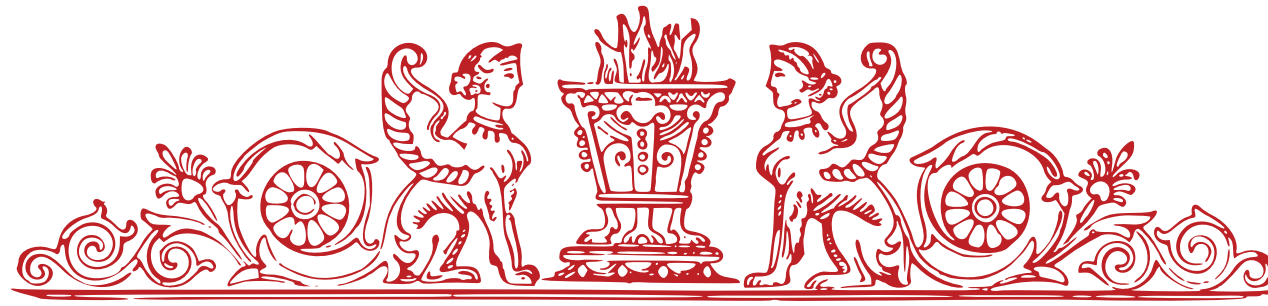
Dr. Poonam Tanwar
(Department of Computer Science)



Dr. Anjali Gupta
(Department of Civil)



Dr. Charu Pujara
(Department of Computer Science)



Patent Published



Ms. Sonal Saluja

Title: Sustainable Concrete Composition and Method for Preparation Thereof
Department of Civil Engineering



Mr. Yaman Hooda

Title: Practices for Measuring Business Success in Construction Engineering Organizations
Department of Civil Engineering



Ms. Pinki Sagar

Title: An IOT based charging module for rechargeable batteries of electric vehicles and method thereof
Department of Computer Science



Dr. Shweta Mongia,

Title: Smart Bird Enclosure
Department of Computer Science



Mr. Gurpreet Singh

Title: Artificial Intelligence and IoT based Smart Education to monitoring system for student's attendance and Teacher's feedback for all education institution using Machine learning.
Department of Automobile Engineering



Dr. Sonal Saluja

Title: Plastic Recycling Device
Department of Civil Engineering

Invited Talk Delivered



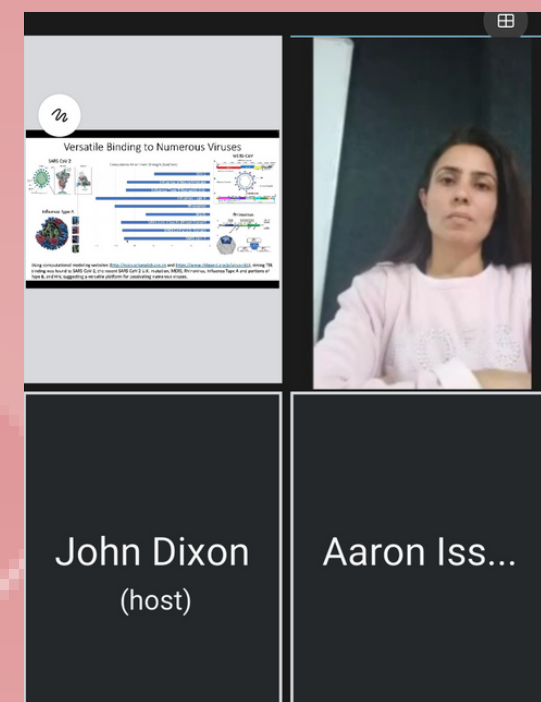
Dr. Kapila Kumar

invited to judge the global teams' work in an online competition held in iGEM, Paris 2022. with over 3000 participants across the globe.



Dr. Vijay Kumar

Delivered talk on Generalized Contractive Fixed Point Theorems for Partial Fuzzy Metric Space, Pakistan



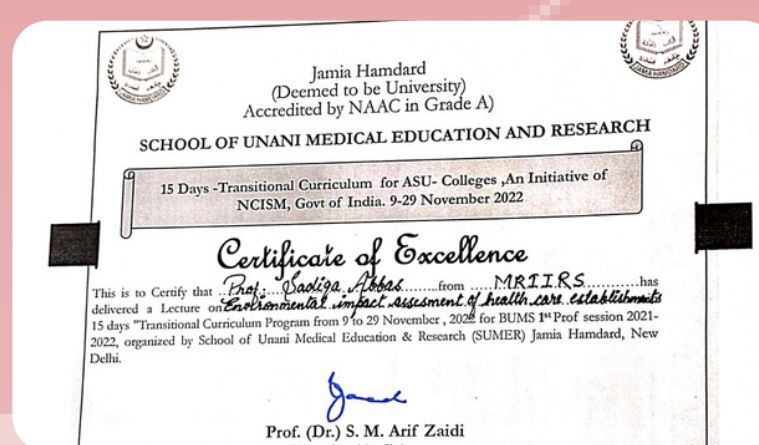
Dr. Pooja Khurana

Delivered talk on Probability Estimation of Covid -19 reinfection, United Kingdom



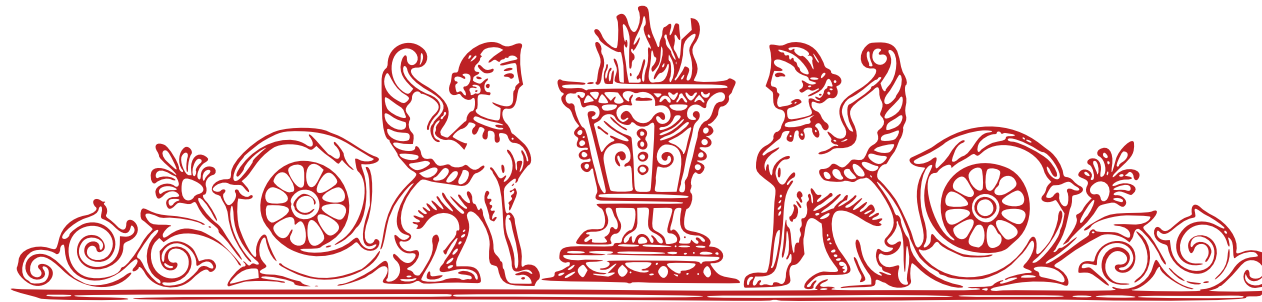
Dr. Devendra Vashist

Delivered talk on "Organization of Petroleum Exporting Countries (OPEC) and Electric Vehicle" at IIMT College of Engineering



Dr. Sadiqa Abbas

Delivered talk on EIA of Healthcare Establishments



SERB, DST Grant of Rs. 15 Lakhs

Reverse Genetics of Chikungunya Virus for identification of Therapeutic Targets and Validation in Mouse Model



Dr. Kanchan Bhardwaj
(Department of Biotechnology)

Faculty Led Startup Competition 2022 under the aegis of DST sponsored NewGen IEDC

18 Start-up ideas by Manav Rachna students funded under DST-NIMAT Scheme of Govt. of India

Manish Kumar
info@impressivetimes.com

FARIDABAD : Manav Rachna NewGen IEDC recently hosted a Faculty-Led Startups and Student Call-for-Startups Contest to catalyze the efforts of faculty in promoting innovation among students. A total of 30 Faculty-led student teams proposed their ideas, out of which 11 received a sanction of INR 2.50 Lakhs grant each to build their prototype within a specified time limit. Three Faculty-led Start-up teams were also awarded winning awards: BFV Wash aimed at providing a solution to prevent diseases caused by Bacteria and Fungi, and enhancing the shelf life of Fruits and Vegetables through BIOSPRAY OF BACTERIOCIN, received the First Prize. (Faculty Mentor:



THE NEW GENERATION INNOVATION AND ENTREPRENEURSHIP DEVELOPMENT CENTRE SUPPORTS THE NATIONAL INITIATIVE FOR DEVELOPING AND CHANNELING INNOVATION. THIS INITIATIVE IS FUNDED BY THE DEPARTMENT OF SCIENCE & TECHNOLOGY, GOI WITH A SUPPORT GRANT

Dr. Sabiha Imran, Students Team: Anjali Maurya, Pooja Dagar, Payal Kaushik) Second Prize was bagged by Prayas, a start-up aimed at fly technology that can be substituted as

Kavya, & Joy) Medplant Care won the Third Prize for their idea to provide all information regarding medicinal plants. The startup works on early disease diagnosis and management, and increases productivity and quality of medicinal plants. (Faculty Mentor: Dr. Nidhi Didwania, Dr. Shweta Mongia; Students Team: Priti, Sasanka, Deepak, Kunal, Nishta) Along with this, 7 Start-up teams under 'Students Call for Start-ups contest' were selected for a grant of INR 2.50 Lakhs each. A Felicitation Ceremony was organized to felicitate the winners with grant sanction letters, and prize money which were duly sponsored under DST-NIMAT Scheme, Government of India. During the ceremony, Dr. Amit Seth, Director NewGen IEDC submitted his detailed report.

Project name - PRAYAS / Webnowations

Team Lead-Dr. Vimlesh Singh

Grant Sanctioned - 2.5 Lakh

Team Members - Ms. Akshita Singh Jadoun, Mr. Anish Yadav Ms. Kavya Chachan, Mr. Sudhanshu Kumar Jha, and Mr. Joy singh

Project name- FAST/Ultrafast Electric Vehicle Battery Charging

Team Lead- Dr. Yogendra Kumar Awasthi

Grant Sanctioned - 2.5 Lakh

Team Members - Mr. P. Brahma Vishnu Vardhan and Mr. C . Uday Kumar

Project name - MedPlant care

Team Lead - Dr Nidhi Didwania , Dr. Shweta Mongia

Grant Sanctioned - 2.5 Lakh

Team Members - Ms. Priti Bhowmik and Mr. Sasnka Kalita

Project name - BFV wash

Team Lead - Dr. Sabiha Imran

Grant Sanctioned - 2.5 Lakh

Team Members - Ms. Anjali Morya , Ms. Jaya Bhaduri

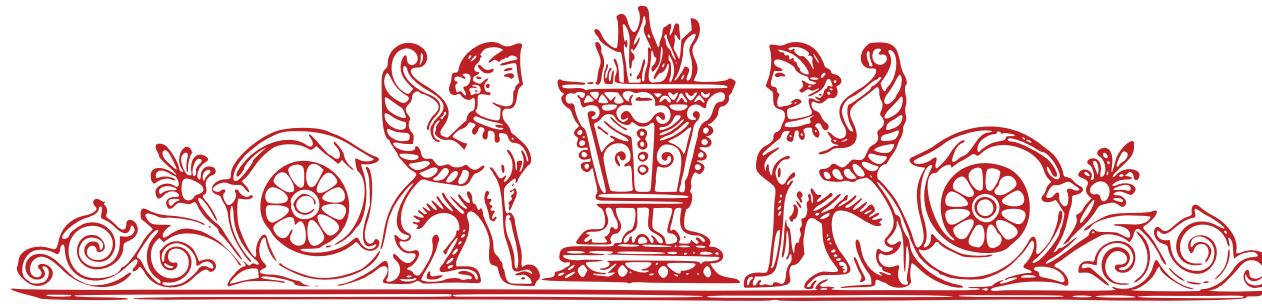
Project Name - Smart Soil Monitoring System

Team Lead-Dr. Shagufta Jabin, Dr. Anjali Gupta,

Dr. Anupma Chadha, Dr. Ashish Grover

Grant Sanctioned - 2.5 Lakh

Team Members - Manvi Bajaj , Preksha Singh and Vanshika Mittal



Faculty Member Certifications

NPTEL

Dr.Sunita Bansal

Aavailability & Management of Groundwater Resources

Top 5% Topper

Dr. Anita Khosla EEE

DC Microgrid and Control Systems

Silver Medal

Dr. Sadiqa Abbas, CE

Integrated Waste Management for a Smart City,

Elite

Dr. Sonal Saluja, CE

Integrated Waste Management for a Smart City,

Elite

Mr. Vishnu Raj, Aero

Design of Fixed Wing Unmanned Aerial Vehicle,

Elite

Dr. Poonam Tanwar, CSE

Patent Drafting for Beginners,

Elite

Dr. Indu Kashyap, CSE

Business Analytics & Data Mining

Dr.Gurpreet Singh Matharou

Innovation, Business Model & Entrepreneurship

Dr.Rosy Madan, CSE

Machine Learning & Predictive Analysis

Dr. Poonam Tanwar, CSE

Python for Data Science,

Elite

Dr.Gurpreet Singh Matharou

Automation in Production Systems & Management

Mr.Yaman Hooda, CE

Design of Steel Structures

ORACLE

Dr. Sonali Batra, CSE

(Artificial Intelligence with Machine

Learning in Java , Database

Foundations , Java Programming)

Dr. Srishty Jindal, CSE

(Artificial Intelligence with Machine

Learning in Java)

UDEMY

Dr. Sonali Batra, CSE

(How to write an Effective Research Paper)

Mr. Vishnu Raj, Aero

(Ansys Structural Analysis with Ansys

Workbench)

COURSERA

Dr. Nitasha Soni , CSE

(How to make presentation)



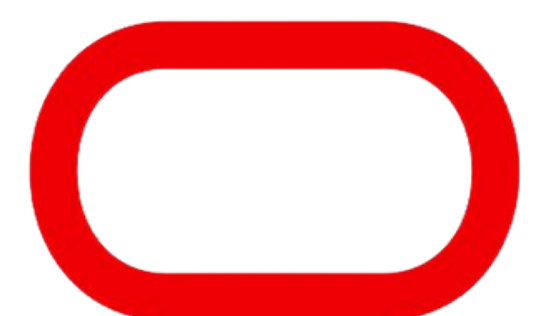
NPTEL



Udemy



Coursera

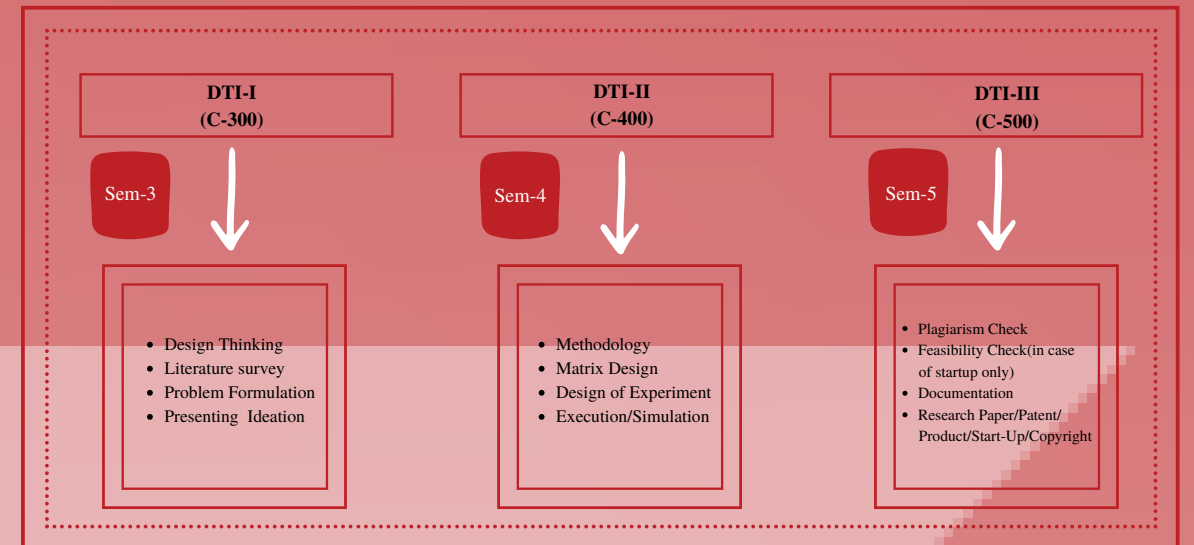
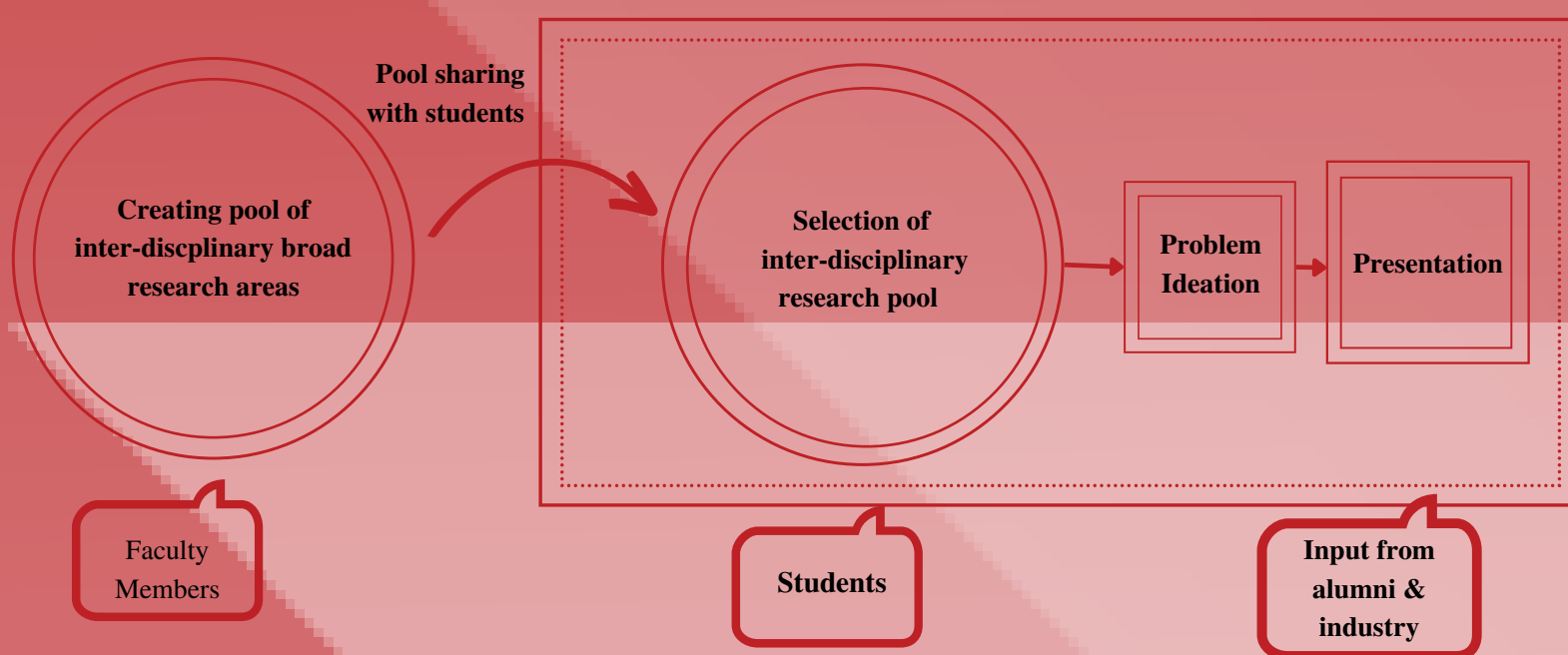


ORACLE

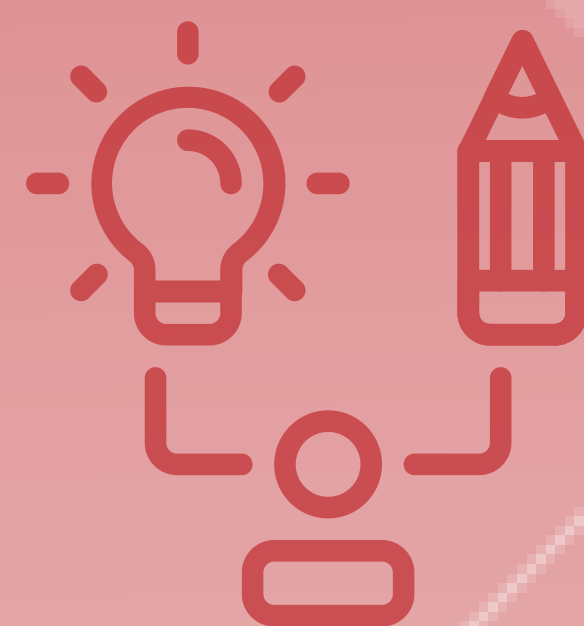
Design Thinking and Innovation

- Including systematic inventive thinking
- Fostering imagination beyond discipline boundaries

- Creative/incremental research
- Students engage in human centric design thinking



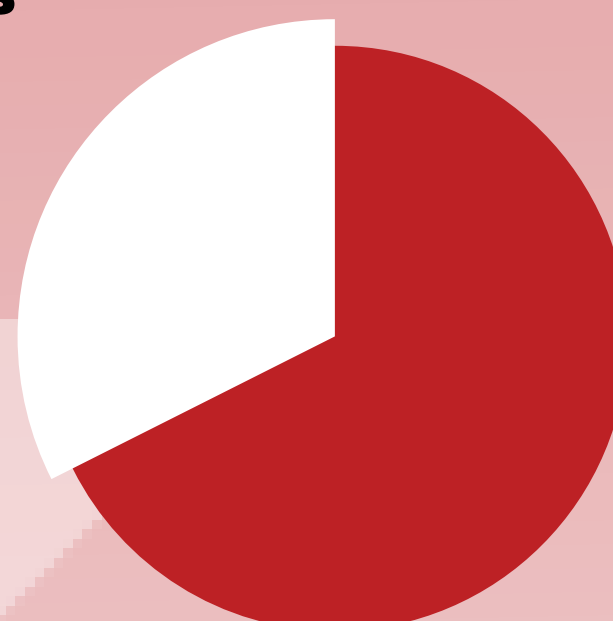
Popular Domains



Research Papers Published in SCI /Scopus Index Journals (July - October 2022)

22 published

55 communicated



Progress: DTI/RIC

International Activities

Prof. John Carroll, Guest Lecture Monash University, Australia

Biotechnology

A guest lecture was organized by the Department of Biotechnology, on 26 September 2022. Students of Biotech department attended the lecture of **Prof. John Carroll, Monash University, Australia**, at ITC Maurya, New Delhi. The students got information regarding opportunities in **higher education and different courses available in biosciences at Monash University**. Prof. John also elaborated Biomedical research going in Monash University.



Articulation and Progression between MRIIRS and University of Nottingham

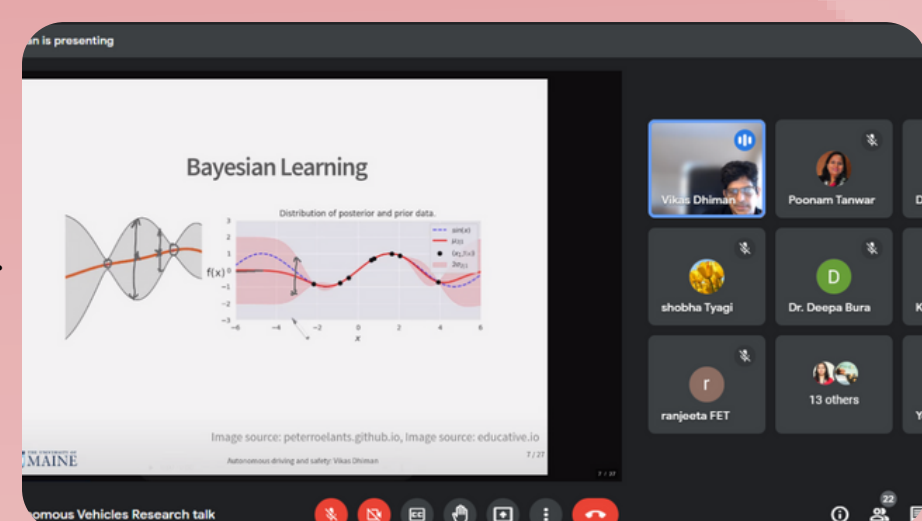
Ms. Anney Yimeng An, Head of Partnership Relations from University of Nottingham UK visited MRIIRS on 22 September 2022, where she briefed about scopes under the Articulation and Progression recently done between two Universities. **University of Nottingham** and **MRIIRS** have agreed to **collaborate in the provision of degree level programmes** leading to a **Nottingham award** which will be between the **School of Biosciences at University of Nottingham** and **Department of Biotechnology**.

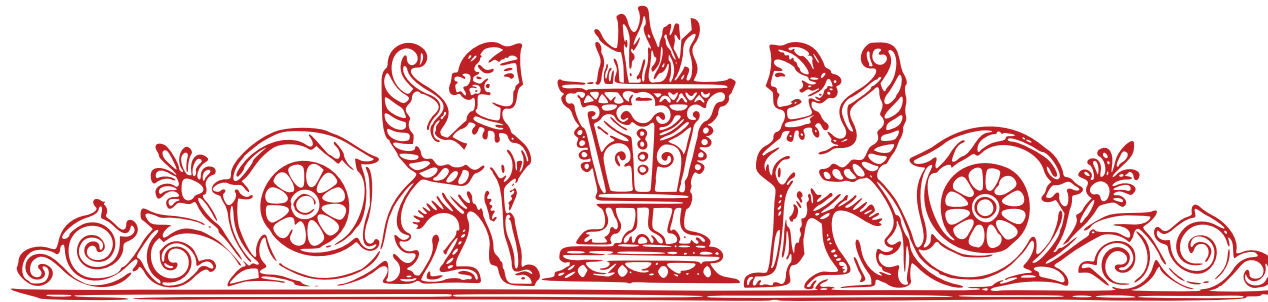


Expert Talk on Self Driving Vehicles using Robotics and Machine Learning

CSE

This talk was given by **Dr Vikas Dhiman, Assistant Professor at University of Maine, USA**. Organized by **Ms. Sonali Batra, Assistant Professor of CSE in FET**. Dr. Dhiman introduced the idea of Artificial Intelligence, Machine Learning, the advances that have been made in this field so far and autonomous vehicles or self driving cars.





Hack The Mountains 3.0

Hack The Mountains 3.0, is a **Hybrid Hackathon**, designed especially for the needs of the community and provides the perfect chance to showcase skills and witness a competitive yet inclusive developer community around it. After the **tremendous success** of HTM 1.0 and HTM 2.0, with 3300+ participants, 300+ real-time projects, and 55+ Qubit Sessions in our previous version, **MRIIRS joined the hands with Sudan Tech for launching the 3rd version of Hackathon.**

17th September 2022 - Day 1

The **36 hours Hackathon** is declared open by **Dr V.K Panchal**. All the participants across the nation and globe have chosen their problem domains as specified Education, HealthCare, AR/VR, Open Innovation, Energy, Environment, Diversity, Blockchain etc.

18th September 2022 - Day 2

The teams were asked for final submission till 5:00 pm.



MLH Contest Winners :
Best Domain Name :
 Team 87
Best use of AppWrite:
 Team saathkhoodmaaf
Best use of Velo by Wix :
 Team 12

HTM Contest Winner :
1st prize :
 Team Thynk
2nd prize :
 Team Crack Illusion
3rd prize :
 Team7

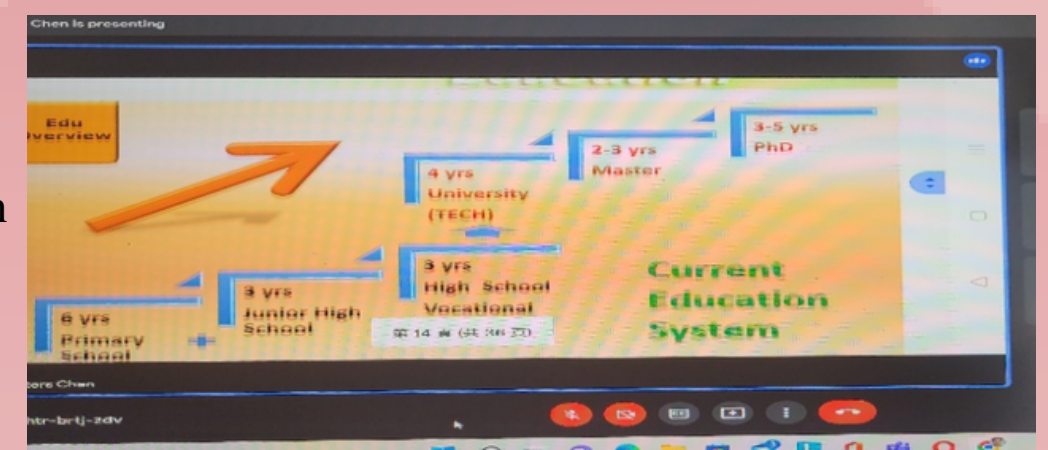
Other Track Prizes :
Best LinkedIn Post :
 Tulsi Kumar
Best reel creator :
 Dhruv

All Girls Participants :
 Team Blue
CosmicHTM Art Challenge :
 Vaishnavi Dasika

International Webinar by Taiwan Embassy's Education Division about scholarships and TEEP

Education Division, Taipei Economic and Cultural Center in India (TECC) conducted a webinar, regarding the "MOE Taiwan Scholarship", "MOE Huayu Enrichment Scholarship" and "Taiwan Experience Education Program". In the MOE Taiwan scholarship, MOE will provide **15000 NTD (approx. ₹40000)** for UG, and for **Master and PhD stipend will be 20000 NTD (approx ₹52000)**. As for MOE Huayu Enrichment Scholarship, MOE provides **25000 NTD (approx. ₹65000)** and for **TEEP internship** you can intern in Taiwan for **1 month to 6 months**.

The organizing team comprised of **Dr Nitasha Soni – CSE** and **Ms Poonam Katyal – CSE**



Student Achievements

NPTEL

Kavya Chauhan, Introduction to CFD

Akshita Singh Jadoun, Aerodynamic Design of Axial Flow Compressors and Fan (Elite Certification), Introduction to CFD

Pratham Dawar, Introduction to Mechanical Vibration

Anish Yadav, Aerodynamic Design of Axial Flow Compressors and Fan

*Aeronautical
Engineering*

Extra-curricular activities

Student Name: Akshita Singh Jadoun

Completed Short Term Course on “Rockets and Missile Systems for Defence Applications” organized by Department of Aeronautical Engineering, Kumaraguru College of Technology, Coimbatore

NPTEL

Aayush Shadija, Design Technology and Innovation, IIT Bombay

M Akhilesh, Entrepreneurship and IP Strategy, IIT Kharagpur

Abhijit Hari Kumar, Raj Dangwal, Project Management for Managers, IIT Roorkee

Gaurav Saxena, Shubham Thakur, Automation in Production Systems and Management, IIT Kharagpur

Aayush Shadija, Abdullah Naim, Gaurav Saxena, Mallhar Maitra, Nirmal Sharma, Shubham Thakur, Rapid Manufacturing, IIT Madras

*Automobile
Engineering*

Extra-curricular activities

Ayush Shadija and Raj Dangwal represented Manav Rachna International Institute of Research and Studies in the North Zone Football Tournament that was held in December in GNA University, Phagwara, Punjab.

Certification

Harsimran Kaur Sapal, “Disaster Response and Relief”, L&T, EHS
“Emergency Preparedness Evacuation during Disaster”, Yooshin Engineering Corporation

Harman Kaur Sapal, “Disaster Response and Relief”, L&T, EHS
“Emergency Preparedness Evacuation during Disaster”, Yooshin Engineering Corporation

Ashutosh Kumar, “Plastic Waste Pollution: Causes, Impacts and Solutions”, Udemy

*Civil
Engineering*

Co-curricular activities

Student Name: Harsimran Kaur Sapal

Presented Paper in One – Day National Youth Conference on VAYU: The Vital Life Force, The Maharaja Sayajirao University of Baroda, Vadodra.

Student Name: Gulshan Chabra

Gulshan Chabra won Best Paper/Poster Presentation for Technical Session in One Day National Youth Conference on VAYU: The Vital Force, held on 2nd December 2022, Siksha O Anusandhan University, Bhubneshwar, Coordinated by Institute of Climate Change Research, The Maharaja Sayajirao University of Baroda, Vadodara

Student Achievements

Uplabdhii



Placement Offer 4+ Companies (2018-2022 Batch)



Tushar Jha

Infogain/ADP/Sagacious IP/To The New
/Wipro Ltd./Dunzo
DUNZO-18 LPA



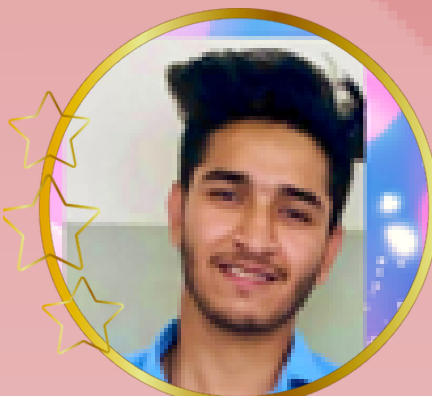
Mehak Khatri

Capgemini/IBM/Accenture/
Fidelity/Dunzo
DUNZO-18 LPA



Amit Kumar Yadav

IBM/Capgemini/Hitachi Vantara/
Axiom IO IT Services/Dunzo
DUNZO-18 LPA



Rahul Bhardhwaj

Accenture/Wipro Ltd./TCS/Dunzo
DUNZO-18 LPA



Satish Maurya

IBM,Xebia, Wipro, TCS
Xebia- 8.1 LPA



Love Kaushik

IBM, Capgemini, Wipro, Xebia
Xebia- 8.1 LPA



Sejal Kaul

Sagacious/IP/Coforge/Aon/Fidelity
Fidelity-8LPA



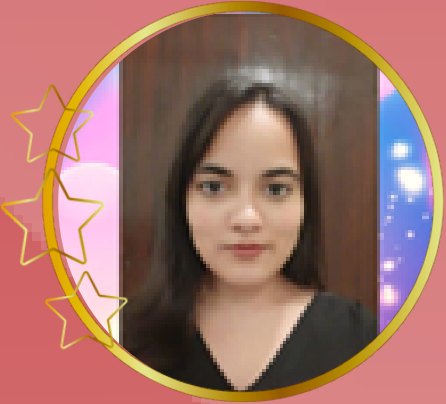
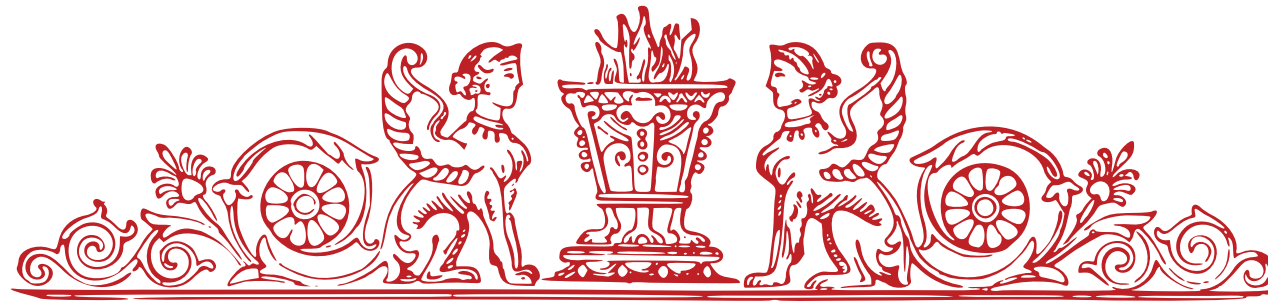
Kumari Akanksha

IBM/Capgemini/Wipro Ltd./Genpact/Fidelity
Fidelity -8 LPA



Shivam Gupta

Capgemini/ IBM/Wipro Ltd./TCS
TCS- 7LPA



Timanshi Bharadwaj

ADP,Capgemini,TCS,Planet spark
Planet Spark - 6.40 LPA



Ankita Sharma

Coforge /Contata Solutions/
Planet Spark/Wipro Ltd/TCS
Planet Spark - 6.4 LPA



Ritick Sethi

Coforge/Planet Spark/Jaro
Group/Wipro Ltd.
Planet Spark-6.40 LPA



Ayush Kumar Pahuja

Capgemini/Accenture/Wipro Ltd.
/TCS/Contec Global
Contec Global - 6 LPA



Pranita Chaudhary

Appinventiv/Coforge/Contata Solutions
/Crowe LLP/TCS/Avizva
Avizva - 6 LPA



Amisha Seth

Coforge,Wipro,Contata
Solution,Hitachi Vantara
Hitachi Vintera - 6 LPA



Shivam Sharma

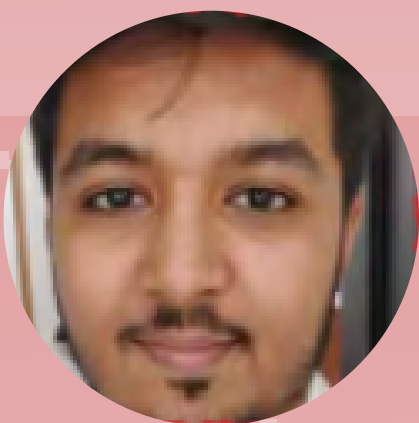
Coforge, Wipro, TCS, Contata
Solution Genpact
Genpact - 5.8 LPA



Utkarsh Bansal

Newgen,Accenture,Wipro,Tcs
Accenture-4.50

Prominent Placements 2023 Passing out batch



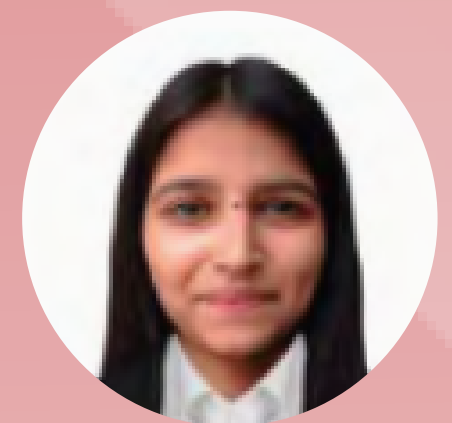
Pranav Agarwal

American Express
Package - 17.70 LPA



Divyansh Bansal

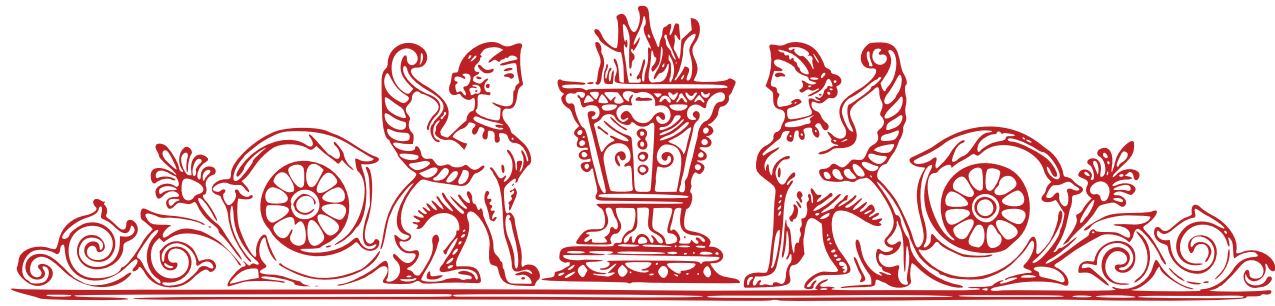
Company Name : Ui Path
Package : 11 LPA



Inshita Bamba

Company Name : DBS Tech
Package : 10.80 LPA





AYUSHI WADHERE

Company Name: Applicate IT Solution
Package: 6.9 LPA-10.5 LPA



NISHANT PREET SAIKIA

Company Name: Intellipaath
Package : 8.65 LPA



NITISH SINGH

Company Name: Honda Motorcycle Pvt. Ltd.
Package : 8.5 LPA



Harsh Bisen

Company Name : Avizva
Package : 6 LPA



Dolly Singh

Company Name: Avizva
Package : 6 LPA



LAKSHAY RAI SHARMA

Company Name: Tata Technologies
Package : 4.65 LPA



NISCHAL THAPA

Company Name: Sonalika Intl. Tractors Ltd
Package : 4 LPA



ADITYA PRATAP SINGH

Company Name: Vegazva Group
Package : 4 LPA



TARUN SHARMA

Company Name: Pravav Vikas
Package : 3.6 LPA

*Placement for 2023 batch is
going on*



SUDHANSHU RAGHAV

Company Name: Jtekt India Ltd.
Package : 3 LPA

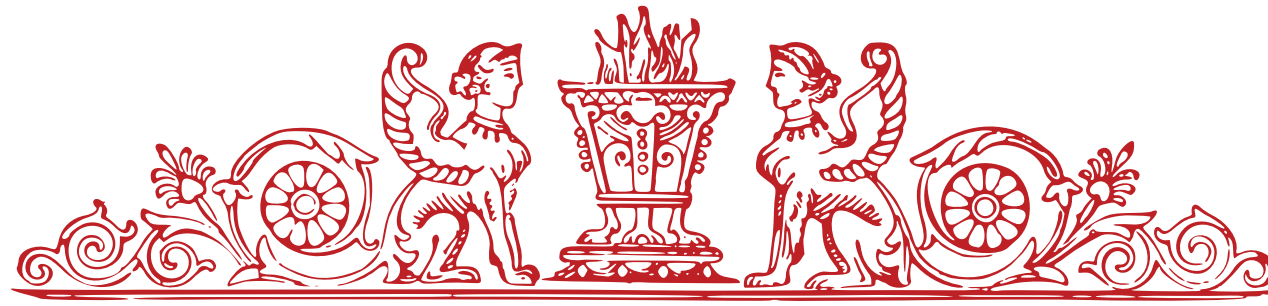
*Many more companies are
queued up*

Competitions



Kaku Din

Bagged Gold medal in debate competition on "Role of Youth in New India" held on 16 August, 2022.



Grant Received

To develop a kit for detection of Sepsis associated Pathogens

SERB DST: 2.5 lakhs



Pragya Vats
M.Sc. Biotechnology



Anjali Tyagi
M.Sc. Biotechnology

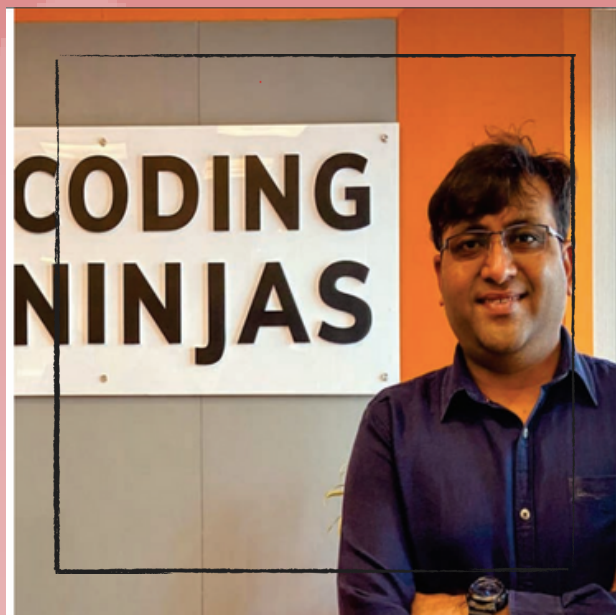


Honoring our Distinguished Alumni

HIMANI CHANDNA

Class of 2005/B. Tech in CSE /MRIIRS

*Vice President - J P Morgan Chase & Co. (India)
Former Assistant Vice President - HSBC, Certified Yoga Instructor*



KANNU MITTAL

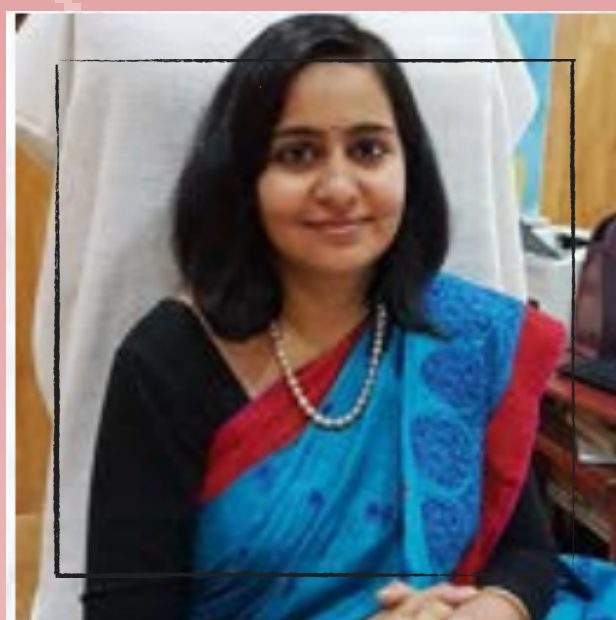
Class of 2008/B. Tech in CSE /CITM

Founder - Coding Ninja

ANSHUL SHARMA

Class of 2007/B. Tech in CSE /MRIIRS

Managing Director at State Street Corporation , London ,UK

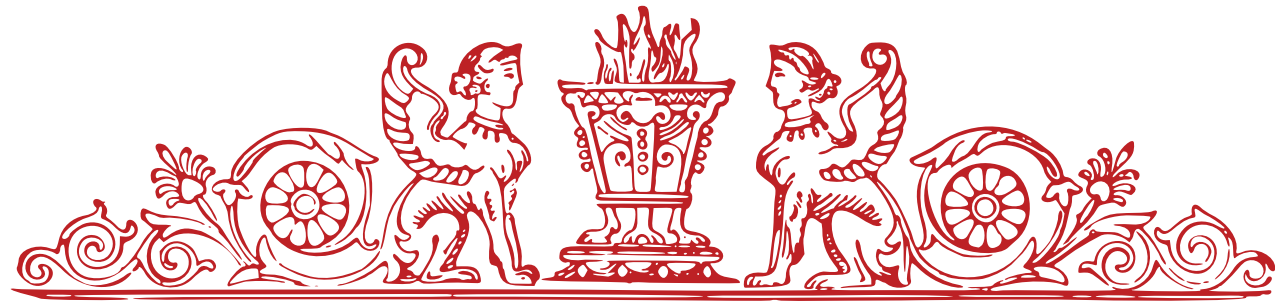


NIKITA PAWAR

Class of 2010/B. Tech in Bio-Tech /MRIIRS

Indian Administrative Services

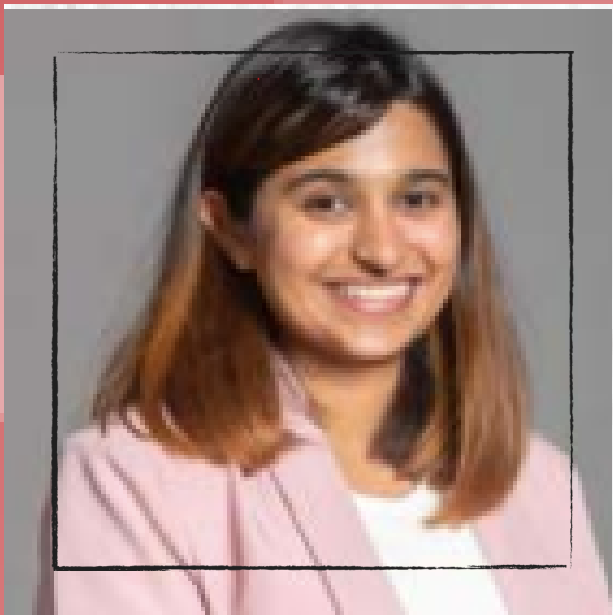




HARSH DAHIYA

Class of 2016/B. Tech in CSE /MRIIRS

Founder of Harvesto



ASHLESHA SHARMA

Class of 2019/B. Tech in Mechanical /MRIIRS

*Technical Student-CERN, International Baccalaureate Math & Physics Tutor,
Member - Space Generation Advisory Council*

AMAN JAIN

Class of 2018/B. Tech in ECE /MRIIRS

*Director at Variety Innovation Venture Director at Stem
Innovation Hub Private Limited*



KULDEEP KUMAR

Class of 2017/B. Tech in Aeronautical /MRIIRS

*Bronze Medal in World Cup 2012, Italy
Bronze Medal in Asian Championship 2015, India
India Silver Medal in World Cup 2017 Anapa, Russia
Gold Medal in World Cup 2019, Nepal
Gold Medal in World Cup 2020, New Delhi, India*



SHAHBAZ AHMED

Class of 2015/B. Tech in Civil /MRIIRS

*National Cricketer, All Rounder and Team Member of
India, India A, RCB*



Recruiter Testimonials

Sahil Dawan, General Manager – EX Squared

Good experience at Manav Rachna. Students are knowledgeable and confident. College tried hard to enhance their skills and knowledge. The faculty is very good and the placement cell people are very cooperative. Overall experience is good.



Ashish Bhalla – Associate Director & Head Campus relations – HCL Technologies



Well Organized event. It was an interactive session with students during the pre placement talk. Good work by the CRC team in arranging the event. Look forward for long term and transparent relationship with Manav Rachna.

Prashant Sharma – Axeno - DXP Practice Head

What a great experience we have!!

Absolutely amazed to see most of the students possessing up to date industry critical skill sets. Good to see that they all were well prepared and eager to learn more.

With their current caliber, we are sure that they will excel in their future.



Shilpi Aggarwal - Manager HR - Contata



Overall experience was good in terms of hospitality. All students were polished, presentable and well-groomed. They all were well prepared for the interview.

Knowledge Partners & Top Recruiters

Knowledge Partners



Top Recruiters



MANAV RACHNA EDUCATIONAL INSTITUTIONS
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