



**Manav Rachna International Institute  
of Research and Studies**  
(Deemed to be University under section 3 of the UGC Act, 1956)

# **Manav Rachna Innovation & Incubation Centre (MRIIC)**

# **Annual Report**

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## **2023-24**



# Manav Rachna Innovation and Incubation Centre (MRIIC)

MRIIRS (Manav Rachna International Institute of Research and Studies) actively promotes innovations and other initiatives for the creation and transfer of knowledge. The university has created a robust ecosystem of Innovation for harnessing young minds and their innovation potential in an academic environment which provides solutions to many societal and industrial problems. MRIIC is a seminal initiative of MREI and is dedicated to Founder Visionary Dr. O.P. Bhalla whose dream was to encourage research, innovation and entrepreneurship to help the students to develop professional entrepreneurial ability and mindset to set up their own enterprises. It has been established with a view to cater to the needs of students and faculty members who are inclined towards research, innovation, and novel ideas.

The Centre through its various activities encourages both engineering and non-engineering students across various departments to develop innovative and creative business ideas which in the subsequent stages are incubated to convert into successful enterprises. The Centre is instrumental in coordinating entrepreneurial education so that they develop necessary background to take up viable and feasible start-up ventures. The Centre regularly organizes business plan competitions through which meritorious projects are identified and selected for direct support.

## Scope of Work:

- To expand tie ups with government organizations, industries and academia for carrying out collaborative research.
- To provide training to the university graduates in advanced areas to meet the Ever growing and changing industrial and business environment.
- To promote research based learning in academia in partnership with leading industries and universities of national and international repute.
- To build centre of excellence that leverage existing resources of the institution for promoting interdisciplinary research.
- To foster innovations that can be represented at national and international level project competitions, exhibitions and conferences.
- To impart necessary skills to the university graduates so that they can excel in project competitions.



# Innovation Centre

Manav Rachna Innovation and Incubation Centre lays a major emphasis on Experiential Learning. MRIIC encourages the spirit of knowledge-backed creativity that can translate concepts from the classroom to products of utility and implement them in a scalable manner.

The brief outcomes and initiatives of MRIIC taken during the **AY 2023-24** are as mentioned below:

## • Scratch Olympiad 2023

In June 2023, the Manav Rachna Institute of Research and Studies successfully organized the 7th International Scratch Olympiad, an exciting competition designed to encourage and showcase the creative coding talents of students. This event provided a fantastic opportunity for young minds to enhance their programming skills, collaborate with peers, and express their creativity through the popular Scratch platform.

The Scratch Olympiad has been a significant annual event for the past 2-3 years, growing in popularity and participation each year. It serves as a platform for students to demonstrate their understanding of coding principles, creativity, and teamwork through a series of innovative challenges and projects.

### The main objectives of the 7th International Scratch Olympiad 2023 were:

1. To encourage students to develop and showcase their programming skills.
2. To provide a collaborative environment for students to work together and learn from each other.
3. To inspire innovation and creativity through coding challenges.
4. To foster a spirit of teamwork and problem-solving among participants.

## • Smart India Hackathon (SIH) 2023

Smart India Hackathon (SIH) is a nationwide initiative by the Ministry of Education's Innovation Cell, fostering a culture of innovation and problem-solving among students. It addresses real-world challenges faced by the government, ministries, industries, and organizations. Since its inception in 2017, SIH has grown into the world's largest open innovation model, offering Software and Hardware Editions for higher education students.

Organized by the Ministry of Education's Innovation Cell and All India Council for Technical Education, SIH 2023 has media partners Doordarshan and Akashwani, with AWS and Hero as official partners, and Hack2Skill as the knowledge partner. Manav Rachna International Institute of Research & Studies is a nodal centre for the Smart India Hackathon Hardware edition. Thirty-two teams, comprising 230 participants and mentors, compete against six problem statements from the Ministry of Power. The program, inaugurated by the Ministry of Education on December 19, 2023, underscores the commitment to fostering innovation among the youth. The program's inauguration featured notable guests, including Prof. (Dr.) T.G. Sitharam, Chairman of AICTE, Dr. Abhay Jere, Vice Chairman of AICTE, Dr. Prashant Bhalla, President of MRIIRS, Dr. Amit Bhalla, Vice President of MRIIRS, and other dignitaries. This event not only highlighted technical innovation but also emphasized the importance of physical well-being and stress management for participants. The government's commitment to fostering innovation and providing a platform for students to address real-world problems was evident throughout the event.



Images

## • Dark Patterns Buster Hackathon 2024

An event was organized on 31st January 2024 by the Manav Rachna Institute of Research and Studies. This event marked the 2nd round of the Dark Patterns Buster Hackathon for the year 2023. The hackathon aimed to bring together talented individuals to solve complex problems and innovate in various fields of technology. The event saw participation from a diverse group of individuals, including students, professionals from different institutions and organizations. The total number of participants was significant, showcasing a wide interest and enthusiasm for the hackathon. The Dark Patterns Buster Hackathon (2023) - 2nd Round saw a total of 40 participants forming 14 teams, representing different institutions.

The Dark Busters Buster Hackathon (2023) - 2nd Round, organized by the Manav Rachna Institute of Research and Studies, was a resounding success. It not only provided a platform for innovation and collaboration but also adhered to high standards of compliance and participant satisfaction.



## • Arduino Day 2024

On 21st March 2024, the Manav Rachna Institute of Research and Studies successfully organized Arduino Day, a vibrant event celebrating the versatile Arduino platform. This event was designed to encourage innovation and hands-on learning in electronics and programming among students. It featured various competitions, demonstrations, and collaborative activities, aiming to foster a spirit of creativity and technical skill development.

Arduino Day 2024 saw enthusiastic participation from eight teams, including two teams from Greater Noida. The diverse group of participants highlighted the widespread interest in electronics and programming across

different regions. Each team brought unique projects and ideas, contributing to the dynamic and inspiring atmosphere of the event.

The event featured several competitions where teams presented their innovative projects using the Arduino platform. The projects ranged from automated systems and smart devices to interactive gadgets and creative installations. The judging criteria included originality, technical proficiency, practical application, and overall presentation. To acknowledge the efforts and participation of all teams, participation certificates were distributed to every participant. This gesture aimed to recognize their hard work, encourage continued learning, and motivate them to pursue further projects in electronics and programming.

Arduino Day 2024 achieved its objectives of fostering creativity, collaboration, and technical skill development among students.



## • The Memorandum of Understanding (MOU) with Raspberry Pi Foundation

In a significant move to enhance educational initiatives and promote digital literacy, the Manav Rachna Institute of Research and Studies signed a Memorandum of Understanding (MOU) with the Raspberry Pi Foundation on 4th April 2024. This partnership aims to leverage the strengths of both organizations to provide comprehensive resources and support for educators and students in the field of computing and digital making.

The Raspberry Pi Foundation is a renowned organization dedicated to promoting education and providing affordable computing solutions worldwide. In India, the foundation's initiatives are spearheaded by Ms. Vasundra, who has been instrumental in expanding its reach and impact across the country. The primary objectives of the MOU include:

**1. Enhancing Digital Literacy:** To provide students and educators with access to high-quality educational

resources and tools related to computing and digital making.

**2. Promoting STEM Education:** To encourage interest and proficiency in Science, Technology, Engineering, and Mathematics (STEM) through hands-on learning and practical projects.

**3. Teacher Training and Support:** To offer training programs and continuous support for educators to effectively integrate Raspberry Pi into their teaching practices.

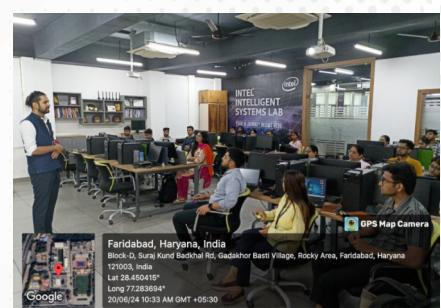
**4. Collaborative Projects:** To foster collaborative projects and research initiatives that leverages the capabilities of the Raspberry Pi platform.

The signing ceremony of the MOU took place at the Manav Rachna Institute of Research and Studies, attended by key representatives from both organizations. Ms. Vasundra, the founder of Raspberry Pi initiatives in India, was present to formalize the partnership. Her vision and commitment to enhancing digital education were central to the discussions and future plans outlined during the ceremony.

## • Future Tech Workshop 2024

On 20th June 2024, the Manav Rachna Institute of Research and Studies organized the Future Tech Workshop, focusing on the versatile Raspberry Pi Pico. This workshop aimed to introduce participants to the capabilities of the Raspberry Pi Pico and explore its applications in various tech projects. Faculty members from the Echelon Institute of Technology, as well as other educational institutions, participated in the event and expressed their appreciation for the workshop's content and organization.

The workshop saw active participation from faculty members across different educational institutions. Notably, faculty members from the Echelon Institute of Technology were present, along with several other school faculties. The diverse group of participants ensured a rich exchange of ideas and experiences, contributing to the workshop's overall success.



# Incubation Centre

MRIIRS also boasts the Manav Rachna Innovation and Incubation Centre (MRIIC), backed by the Entrepreneurship Development Institute of India (EDII) through NSTEDB, DST, GOI. This centre empowers students by offering funds of Rs.2.5 lakhs to execute their innovative startup ideas. The centre takes pride in nurturing 107 alumni student start-ups, with an additional 85 start-ups currently operating on campus.

## About NewGen IEDC:

Manav Rachna NewGen IEDC is an organization geared towards speeding up the growth and success of startup and early stage companies. We at Manav Rachna NewGen IEDC, often provide a good path to capital from angel investors, state governments, economic-development coalitions and other investors. At Manav Rachna NewGen IEDC, your business not only gets access to a potential buffet of capital choices, but also a host of intangible benefits including mentorship, expertise and networking. With the establishment of Manav Rachna NewGen IEDC, Undergraduate students, Post graduate students, doctoral students, alumni and faculties at Manav Rachna would be entertained to convert their business ideas into successful commercial or social ventures.

Manav Rachna NewGen IEDC offers integrated, customized Innovation-Based Incubation support services for potential high investable entrepreneurs and enterprises. It scouts for innovative entrepreneurs, builds on ideation leading to develop a business concepts, provides skills and competencies through capacity building/ training programs towards building effective enterprises.



## Vision:

The vision of Manav Rachna NewGen IEDC radiates a commitment to sculpting a future where innovation thrives and entrepreneurial aspirations know no bounds. We envision a landscape where every idea, regardless of its origin, has the power to transform into a successful and impactful venture. Our vision encompasses a vibrant ecosystem where budding entrepreneurs, be they students, alumni, or faculty, are empowered with the resources, guidance, and networks needed to turn their concepts into reality. At the heart of our vision lies the belief that innovation is the cornerstone of progress, and by nurturing creativity, fostering a spirit of enterprise, and providing comprehensive support, we aim to catalyze the birth and growth of ventures that redefine industries, solve pressing societal challenges, and shape a brighter tomorrow.

The brief outcomes and initiatives of incubation center taken during the AY 2023-24 are as mentioned below:

**Activities Table:**

S. No.	Title of workshop/seminar organized	Actual date of conduct from (dd-mm-yyyy) to (dd-mm-yyyy)
1	Business model/revenue generation	7 <sup>th</sup> July 2023
2	Idea pitching	14 <sup>th</sup> July 2023
3	Customer acquisition & value generation	21 <sup>st</sup> July
4	Digital marketing	1 <sup>st</sup> , 2 <sup>nd</sup> Sep, 2023
5	Fundraising & networking	1 <sup>st</sup> , 2 <sup>nd</sup> Sep, 2023
6	National seminar + investor meet	1 <sup>st</sup> , 2 <sup>nd</sup> Sep, 2023
7	Freshers orientation program on innovation and incubation	17 <sup>th</sup> and 28 <sup>th</sup> July, 2023
8	Investor-startups meet	22 <sup>nd</sup> , 23 <sup>rd</sup> Sep, 2023
9	Expert mentoring session	28 <sup>th</sup> , 29 <sup>th</sup> Nov, 2023
10	India mobile congress (imc)	28 <sup>th</sup> to 30 <sup>th</sup> October 2023
11	Talk on design thinking	January 17 <sup>th</sup> , 2024
12	Source India	23 <sup>rd</sup> and 24 <sup>th</sup> January 2024
13	Startup exhibition and advisory board meeting	16 March 2024
14	Tech startup weekend	19 <sup>th</sup> to 21 <sup>st</sup> April 2024
15	Outreach program	1 <sup>st</sup> July 2024
16	Session on innovation/prototype validation – converting innovation into a start-up or session on achieving “value proposition fit” & “business fit”	5 <sup>th</sup> July 2024
17	Session on accelerators/incubation – opportunities for students & faculties – early-stage entrepreneurs	12 <sup>th</sup> July 2024
18	Organize session on “lean start-up & minimum viable product/business	19 <sup>th</sup> July 2024
19	Getting ready for funding	26 <sup>th</sup> July 2024

• **Training Workshop: Business/revenue Model, July 7th 2023**

On July 7th, 2023, a workshop on Business and Revenue Model was held at the Incubation Center. The workshop was conducted by Dr. Amit Seth, Director MR NewGen IEDC. The event aimed to provide participants with valuable insights and practical knowledge about developing effective business and revenue models to drive success in their ventures.



### • Workshop on Idea Pitching

On the 14th of July 2023, a dynamic and engaging workshop on Idea Pitching was conducted at MR NewGen IEDC. Dr. Amit Seth, a seasoned expert in entrepreneurship and innovation, served as the resource person, guiding participants through the intricacies of presenting ideas effectively. The workshop aimed to equip attendees with the skills necessary to articulate and sell their ideas persuasively.



### • Customer Acquisition And Value Creation

The workshop on customer acquisition and value creation, conducted on 21st July 2023, was a dynamic session aimed at exploring effective strategies for acquiring customers while emphasizing the creation of substantial value within business frameworks. Dr. Amit Seth, expert in marketing and business development, led the workshop, offering valuable insights and practical approaches to the participants.



### • Orientation Program

Day 7 of the Orientation Batch 2023 opened with mentoring of students where they had a brief interaction with their respective mentors.

#### Session 1: Alumni Session

The first session of the day was the Alumni connect where Mr. Parichay Tyagi, an Alumnus of FMS from batch 2013-15 interacted with the students, currently Mr. Parichay Tyagi is heading the North division of Waaree group as Manager of Sales. During his interaction with students he shared his journey, struggle and experience with students.

#### Session 2: Session about NewGen IEDC

The second session on New Gen IEDC was conducted by Dr Amit Seth Director, NewGen DC and Professor, SLAM. Dr Seth along with student representatives discussed about the working of New Get IEDC, and how students are encouraged with respect to startups. The interactive session by the team NewGen IEDC, emphasized the importance of being financial independent

#### Session 3. Bridge Course- Business industry Ethics

The last session was delivered by Dr Gautam Srivastava Professor Marketing & Strategy from the School of Leadership & Management. The primary objective was to sensitize the students on Industry expectations and ethical practices besides Moulding themselves to corporate fitment and being future ready.



### • National Seminar and Investor Meet

The National Seminar and Investor Meet emerged as a landmark event, bringing together key players in the startup ecosystem. The insightful sessions, investor pitches, and expert guidance provided a holistic experience for all participants. The knowledge shared and connections forged during these two days are expected to catalyze the growth of the participating startups, further contributing to the vibrancy and dynamism of the entrepreneurial landscape.



### • Sonipat Startup Summit 2023: A Report on the 2-day Event at AIC IIT Delhi

The second edition of the "Sonipat Startup Summit 2023" organized by AIC IIT Delhi took place from September 21st to 22nd, showcasing an assembly of promising startups, innovators, and budding entrepreneurs. The event aimed to provide a platform for groundbreaking ideas and solutions that have the potential to shape the future of technology and address existing challenges.



- **Expert Mentoring Session on Startups With Mr. Amit Shah, Ceo of Office**

The two-day event served as a melting pot of innovation, collaboration, and knowledge-sharing. The Expert Mentoring Session with Mr. Amit Shah, combined with the diverse range of startups, made it a memorable and impactful experience. We extend our gratitude to all participants and look forward to future events that continue to nurture and celebrate entrepreneurial spirit.



- **3-day Event and Expert Mentoring Session on Startups**

I am pleased to present a comprehensive report on the successful completion of our 3-day event held from November 28th to December 1st, 2023. The highlight of the event was an expert mentoring session on startups, featuring Dr. Amit Seth, Director of Manav Rachna NewGen IEDC, and Dr. Monika Goel, Chief Coordinator of Manav Rachna NewGen IEDC.



- **India Mobile Congress (imc) 28th, 29th and 30th October 2023**

India Mobile Congress (IMC) is the largest telecom, media, and technology forum in Asia, jointly organized by the Department of Telecommunications (DoT) and the Cellular Operators Association of India (COAI).

Since its inception, IMC has established itself as a leading forum for bringing together industry, government, academia, and other ecosystem players to discuss, deliberate, demonstrate and display the latest trends in the realm of TMT and ICT.

Not only is the India Mobile Congress the biggest technology event in Asia, but it is also the biggest networking event in India in the technology space. Through an immersive showcase of revolutionary innovations, our mission is to catapult India into the limelight, becoming a beacon of the all-encompassing digital transformation shaping the future.

This event was conducted on 28TH, 29TH AND 30TH OCTOBER 2023 at Pragati Maidan New Delhi.

Our Startup i.e. Netra SS got the opportunity to attend the event.



- **Talk on Design Thinking 17th January 2024**

The talk on design thinking conducted by Manav Arachna NewGEN IEDC on January 17th, 2024, for dental department students aimed to heighten awareness about startup and innovation. Dr. Amit Seth, an expert in marketing, elucidated the principles of design thinking—a human-centered approach to innovation—emphasizing understanding user needs, problem definition, ideation, prototyping, and testing.

Through real-world examples, Dr. Seth underscored the importance of integrating marketing strategies into the design thinking process to ensure successful implementation of innovative solutions, fostering an environment

conducive to entrepreneurial endeavors within the dental community



- **Source India 23rd and 24th January 2024**

SOURCE INDIA was initiated by Electronic Industries Association of India (ELCINA) in 2009 in Chennai to accelerate development of the Indian electronics supply chain. ELCINA recognizes that a strong supply chain is the backbone of any engineering manufacturing industry. The Indian market offers great opportunity for Electronics industry.

The vision has been to establish Source India as the flagship event of Tamil Nadu State for the Electronics Hardware Sector.

Netra SS a startup of NewGen IEDC was selected for this event which was conducted on 23rd and 24th January





- **Screening and Review Meeting 6th February 2024**

On February 6th, 2024, Manav Rachna NewGEN IEDC conducted a screening and review event for startups associated with the program, aiming to assess their current status and identify any obstacles they were encountering. Our 20 Advanced stage startups took part in this events.

The jury panel, consisting of Dr. Amit Seth, Director of NewGen IEDC, Dr. Monika Goel, Chief Coordinator of NewGen IEDC, and Dr. Rajiv Kapoor, MD of MREI, provided valuable feedback and guidance to the startups, facilitating their progress in overcoming challenges and advancing in their entrepreneurial endeavors



- **Advisory Board of NewGen IEDC**

On 16th march, 2023, the Advisory Board of NewGen IEDC held its meeting in a hybrid mode at the A Block-Board room. This event provided an invaluable opportunity for startups to showcase their products and receive constructive feedback from esteemed board members. The gathering facilitated meaningful interactions between the startups and industry leaders, fostering an environment conducive to innovation and growth.



- **Startup Weekend Event- April 19th to 21st, 2024**

Startup Weekend, organized by E-Cell DTU, proved to be an enriching experience for our startup, Spillmate. Held from April 19th to 21st, 2024, the event provided a platform for budding entrepreneurs to pitch their ideas to investors and mentors, fostering innovation and networking within the startup ecosystem.

Participation and Pitching



# Award and Recognition:



## Adjustable Kitchen Slab

## Water Filter





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# **Annual Report** **2023-24**



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