

MRU - Innovation & Incubation Council

Ministry of Education (MoE), Govt. of India established **MoE's Innovation Cell (MIC)** to systematically nurture the Innovation culture among all Higher Education Institutions (HEIs). The prime mandate of MIC is to inspire, stimulate and nurture young students by providing them support to work with novel ideas and convert them into valuable products starting from the initial years. MIC has projected the creation of 'Institution's Innovation Council (IICs)' across the HEIs. A network of these IICs has been established to promote innovation in the Institutions through multitudinous modes leading to an innovation and entrepreneurship (I&E) promotion eco-system in the campuses. It's our proud privilege to announce that **MANAV RACHNA UNIVERSITY (MRU), FARIDABAD** was selected as a member of IIC with a core team of three members Dr. Susmita Ray, Ms. Yogita Khanna and Mr. Gianender Kajal way back in November, 2018.

Functions of Institution Innovation Council

- Students and Faculty members connected with IICs have the opportunity to join in numerous Innovation events and competitions organized by MoE.
- Winners will be felicitated with Prizes/Certificates.
- Interact with renowned Business Leaders and Academicians.
- Opportunity to prototype and develop new ideas.
- Mentoring sessions by Industry Professionals.

Standard Operating Procedures (SOP) for Institution Innovation Council (IIC)

Purpose

Purpose of this Standard Operating Procedure Document is to ensure that the activities of Institution Innovation Council (IIC) of Manav Rachna University (MRU) (established in 2018), are executed in accordance with the guidelines specified by Ministry of Education (MoE) Innovation Cell (IC) of Government of India, so as to attain the desired outcome of fostering the innovation and entrepreneurship (I&E) culture and building an I&E ecosystem in the University campus.

Scope

Pre-incubation/Incubation units, Centres of Excellence, IPR (Intellectual Property Rights) Cell, Research Clusters, Industry Collaborations, Startups established in the University campus.

Responsibility

It is the responsibility of IIC President, IIC Convenor and IIC Council Faculty Members to ensure that all the process steps are followed diligently.

Procedure

- Constitute IIC Council at the beginning of every academic year with due approval from competent authorities of MRU as per the guidelines laid by Ministry of Education's (MoE's) Innovation Cell (MIC).
- Assign IIC Council Members' (Faculty members and students) roles and responsibilities on MIC IIC portal.

- Conduct quarterly meetings of the IIC Council and draw up plans of IIC activities. Upload Minutes of meeting, resolution of meeting, meeting photograph and quarterly plan on IIC portal
- Prepare IIC quarterly plans judiciously to have events in the categories of innovation, entrepreneurship, startups, investments/funding for startups, product/prototype design & development, IPR in accordance with MoE IC guidelines grouped under IIC Driven activities, self-driven activities, celebration activity, MIC Driven activities
- Identify the guest speaker, panelists for panel discussion, industry experts as jury members for evaluation of projects of Hackathons/Competitions in consultation with IIC President and Dean Research
- Organize IIC event as per plan in alignment with vision and mission of IIC after obtaining approval on event expenses from competent authorities
- After the conduct of event, upload following artefacts on MoE IC portal: event report, photographs, video recording and event brochure
- Submit event report and photographs to IIC Social Media Coordinator for publishing on MRU IIC portal on MRU website and MRU Facebook.
- Organize internal Hackathons and idea competitions from time to time to evaluate and shortlist project teams of MRU for national level competitions organized by MIC e.g. Smart India Hackathon, National Innovation Contest, Toycathon etc.
- At the end of the academic year, IIC President needs to prepare and submit an Annual Report of IIC Activities to MoE IC as per the prescribed template.

IIC Rating 2022-23



IIC Rating Certificate Academic Year wise

- 2021-22

- 2020-21
- 2019-20
- 2018-19

<https://drive.google.com/drive/folders/1bq5CH7CXF6fsF-wcVXK3t9n-H2bAsV4d?usp=sharing>

On 29th December 2021, MANAV RACHNA UNIVERSITY is recognised in the band "**PROMISING**" under the category "**University & Deemed to be University (Private/Self Financed) (Technical)**" in **Atal Ranking of Institutions on Innovation Achievement(ARIIA) 2021**, a flagship program of the Ministry of Education, Government of India.



External Associations

MOU with Commune Private Limited (AY Ventures), Gurgaon on 7th March, 2024

Manav Rachna University, Faridabad has signed an MOU with Commune Private Limited (AY Ventures), Gurgaon on 7th March, 2024, an initiative taken by IIC-MRU .

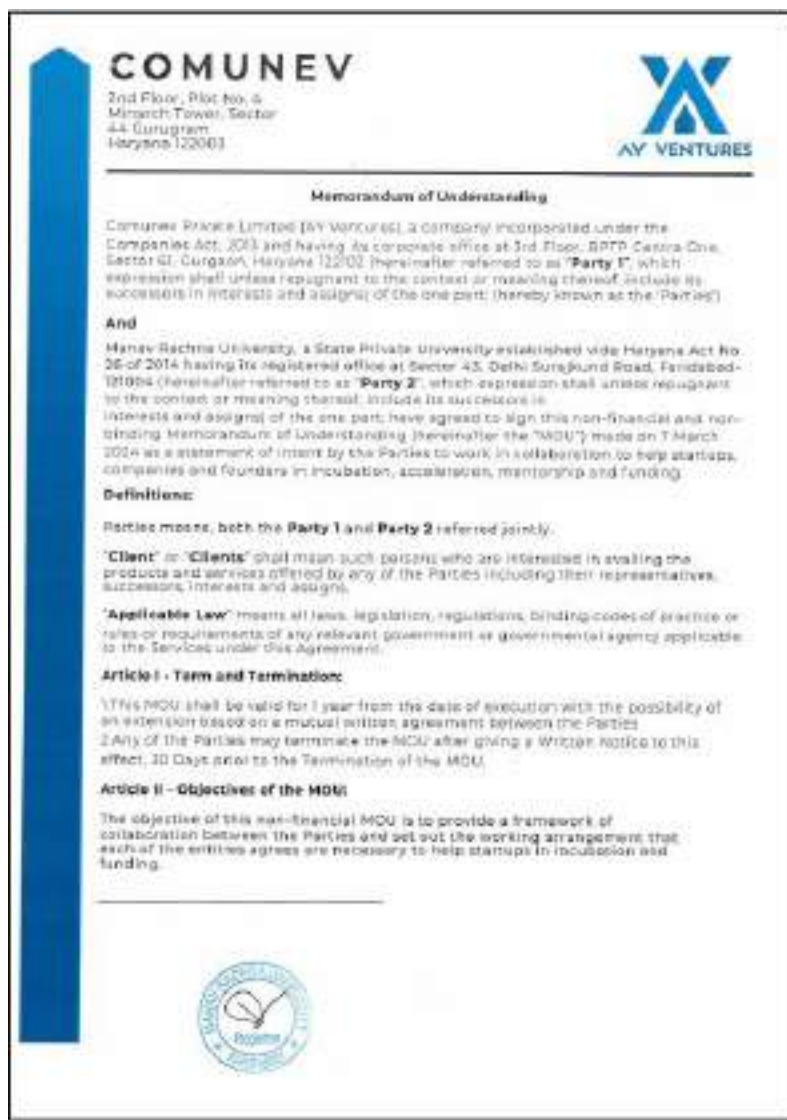
Purpose of the MoU

To provide a framework of Collaboration between AY Ventures and MRU and set out the working arrangement as per the mutual agreement to help Startups in incubation.

Key Agreements and Collaborative Initiatives based on mutual agreement:

1. Mentorship Support : Faculty members of MRU may connect as mentors for Startups, where expertise maps with the requirements of the Startups.
2. Technical Support: MRU faculty may provide technical training and conduct workshops for the Startups as and when requested.
3. Partnership in Events: Both parties will build Collaborative synergies to maximize the benefits for the Startup ecosystem and will partner in events, marketing, promotion incubation, acceleration and mentorship as mutually agreed.
4. Internship or Placement Opportunities: AY Ventures will prioritize the students of MRU, incase of any internship or Placement opportunities available.

The signing of the MOU would provide ample opportunities for our faculty members and students to contribute to the Startup ecosystem.



MRU-Innovation & Incubation Centre

In line with guidelines of MIC, MRU-Innovation & Incubation Centre has been set up in the year 2018.

Vision of MRU Innovation & Incubation Centre

To create successful Entrepreneurs through a Startup ecosystem based on Innovation.

Mission of MRU Innovation & Incubation Centre

The Innovation & Incubation Centre focuses on developing a culture of Innovation and Incubation among the students and faculty members.

IIC wants to create an ecosystem where innovative ideas are cultivated from Ideation to Pre-Incubation, Incubation, finally resulting in successful start-ups.

Units of Innovation & Incubation Centre

- Fabrication Centre
- Product Development Unit
- Pre-Incubation and Startup Cell
- Entrepreneurship Cell

IIC Activities 2023-24

Workshop on Innovation and Prototype Development

Workshop was organized on July 24th, 2023 by SAE Society of Manav Rachna University and was conducted by Dr. J P Sharma, an eminent expert in the field of innovation and product development. The workshop aimed to introduce the participants to the concept of innovation, the process of transforming ideas into real-world products, and the importance of innovation for society. The workshop was attended by 150 enthusiastic individuals from engineering streams.

Dr. J P Sharma began the workshop by providing a basic definition of innovation. He emphasized the importance of innovation in driving progress and solving real-world problems. To make the concept more relatable, a pictorial presentation was used, which effectively conveyed the essence of innovation. The workshop then delved into the practical aspect of innovation. Dr. Sharma explained how participants could convert their innovative ideas into tangible products with real-world applications. The importance of problem-solving and market research in shaping ideas into viable products was highlighted. Participants were taken through the various stages of the innovation process, starting from ideation to commercialization. Each stage was explained in detail, along with the challenges and opportunities associated with them. Dr. Sharma encouraged participants to stay persistent and agile throughout the innovation journey.

The session concluded with an overview of the resources and support available within the campus to help participants realize their innovative ideas. Dr. Sharma highlighted the financial support and hardware resources that could be accessed to turn concepts into prototypes and products. Also one of the SAE society that actually fabricated 4 wheeled ATV with in the campus and participate in various other events, information regarding this society was also shared with the students. It was an enriching experience for all the participants and a commendable effort by organising team to promote innovation within the campus community.



Report on Web Week - Workshop on Web Development Empowering Business Innovation

Institution Innovation Council (IIC) of Manav Rachna University organized a 6 day long event of “Web Week – Workshop on Web Development Empowering Business Innovation” from 7th August to 12th August, 2023. The resource person was Mr. Piyush Kumar and Mr. Amarjeet Singh, students of Manav Rachna University. The aim of IIC to organize the event was to provide participants with valuable insights to the role of web development in empowering business innovation, highlighting its impact on customer engagement, market expansion, and operational efficiency.

Business innovation, characterized by the introduction of new ideas, processes, or products, is essential for maintaining relevance and competitiveness. Web development plays a pivotal role in this innovation by offering the means to create digital solutions that drive growth, enhance customer experiences, and streamline operations. The primary objectives of the workshop were to empower students with fundamental skills in web development, foster peer-to-peer learning and collaboration among students, provide practical exposure to real-world web development scenarios and develop the ability to design and code a website with innovative design independently. The workshop emphasized on the following roles of web development in business innovation: **Enhancing Customer Engagement, Expanding Market Reach and Streamlining Operations.**

Overall the workshop communicated the message to the students that the Web development has become a cornerstone of business innovation in the digital age. By prioritizing user engagement,

expanding market reach, and streamlining operations, businesses can harness the full potential of web development to drive growth and stay competitive.



Pitchdeck – A Sustainable Idea Competition

On 24th August, 2023, the Innovation and Entrepreneurship club, under the pre incubation center, Manav Rachna University organized “Pitchdeck- A sustainable Idea Generation Competition”. Each team submitted a concise synopsis of their business idea, highlighting the problem they aim to solve, their proposed solution, and the potential impact of their innovation. The Pitchdeck event was held on 24th August, 2023 at the K block room no. KG02. The event spanned from 1:50pm to 3:30pm, offering a mix of idea pitching, jury evaluation, and networking opportunities. There were a total of 10 teams that were selected to present their idea and the jury evaluated them on the basis of novelty of idea, relation to sustainable goal, uniqueness and presentation.



Report on Pitchdeck – A Sustainable Idea Competition

On 24th August, 2023, the IIC under the pre incubation centre, Manav Rachna University organized a pitching event – “Pitchdeck- A sustainable Idea Generation Competition”, to introduce the first-year students to the I&E club. The event commenced with an engaging registration process and selected students present their innovative business ideas in front of the jury members (Mr Mohit Mahajan, Dr. Pradeep K Varshney and Dr. Yogita Sharma). The registration period consists of online registration, team formation, idea synopsis, selection criteria, confirmation email. Each team submitted a concise synopsis of their business idea, highlighting the problem they aim to solve, their proposed solution, and the potential impact of their innovation.

10 teams that were selected to present their idea and the jury evaluated them on the basis of novelty of idea, relation to sustainable goal, uniqueness and presentation. The event contributed to the growth of

innovative thinking and provided a stepping stone for potential future ventures. This whole event was executed by the team I&E Club under the guidance of Dr. Yogita Sharma.



Flagship Event “SANRACHNA”

Manav Rachna University’s Entrepreneurship cell under MRU-IIC conducted a host of activities under their entrepreneurship campaign to create an entrepreneurial ecosystem in the campus named “Sanrachna 5.0” from September 9-15,2023. A brief summary of the events conducted is given below:

E-Talks Webinar on Startups and Entrepreneurship

This session was an online talk conducted in association with AIC BIMTECH and was delivered by Mr. Pulkit Madan, Founder and CEO of Warp Bay who shared his personal story of how he initiated his start-up Warp Bay. Warpbay is an event app to provide attendees with personalized schedules, real-time information, and valuable networking prospects. He talked about his struggles and challenges, as well as his successes. He also gave the students some valuable insights into the world of startups and entrepreneurship and guided about how a universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity.

One of the key points that Mr. Pulkit Madan discussed was the importance of having a strong team. He stressed that your team should be made up of people who are passionate about the business idea and are complementary to each other's skills and strengths. A clear vision for your startup and to be able to communicate that vision to your team is also essential. Another key point that he discussed was the need for perseverance. He said that entrepreneurship is not easy and that there will be many challenges along the way. However, he stressed that it is important to never give up on your dream, no matter how difficult things get. He said you should learn from your mistakes and use them to strengthen your startup. Mr. Pulkit Madan also talked about the importance of learning from others. He said that many successful entrepreneurs are willing to share their advice and insights. He encouraged the

students to reach out to these entrepreneurs and learn from their experiences. A total of 100 + students attended the expert session.

Key Takeaways:

- The importance of having a strong team
- The need for perseverance
- The importance of learning from others
- The importance of networking
- Staying up-to-date on the latest trends
- Being willing to take risks
- Specific tips for entrepreneurs, such as creating a business plan, developing a marketing strategy, and raising capital

Overall, the webinar was a valuable opportunity for the students to learn from an experienced entrepreneur. Mr. Pulkit Madan's insights and advice will be invaluable to the students as they pursue their entrepreneurial dreams.





Workshop Report on InnoCyber Mastery - Bridging Skills and Innovation

Institution Innovation Council (IIC) of Manav Rachna University organized a 5 days long event of "InnoCyber Mastery: Bridging Skills and Innovation" from 11th September 2023 to 15th September 2023. The objective of this workshop is to provide participants with valuable comprehensive exploration of key cybersecurity topics to innovation and research. Participants explored new cybersecurity tools, techniques, or methodologies, contributing to the advancement of knowledge in the cybersecurity field.

The workshop commenced with an insightful introduction to the field of cybersecurity. Students gained insights into the evolving threat landscape and the crucial role of cybersecurity professionals in safeguarding information assets. Students were guided through the fundamentals of network architecture, protocols, and security considerations. Kali Linux was introduced which is a powerful open-source toolkit widely used for penetration testing and ethical hacking. Practical demonstrations and hands-on exercises was also performed. The session on Nmap offer valuable insights into network scanning and mapping techniques covering various scanning methods, port discovery, and service enumeration through live demonstrations enhanced participants' understanding of Nmap's role in vulnerability assessment. Moving into the realm of password security, an exploration of Hashcat, a robust password cracking tool was also showcased. Through engaging discussions and practical exercises, students learned about password hashing algorithms, techniques for password cracking, and the importance of strong password policies. The final segment of the workshop focused on Wireshark, a widely used network protocol analyzer. The speaker elucidated the capabilities of Wireshark in capturing and analyzing network traffic. Practical exercises enabled participants to dissect network packets, identify potential security threats, and gain hands-on experience with this essential tool.



Twisted Bits

This event was an online entrepreneurship quiz named “Twisted Bits “ held on 11th September 2023. The event aimed to test the entrepreneurial acumen of participants and foster a spirit of innovation and enterprise. Over 50 enthusiastic individuals participated in the event, showcasing their knowledge and passion for entrepreneurship. Maximum questions were based on sustainability development goals. The motive of such questions was to increase awareness amongst the students about the same.

Winners:

After a closely contested competition, the following participants emerged as the winners, exhibiting exceptional knowledge and quick thinking:

1. Ritika Verma
2. Sachin Kumar
3. Vansh Aggarwal

These three individuals displayed remarkable aptitude in entrepreneurship by securing the highest score of 17 points out of a total of 20.

Participants expressed their appreciation for the well-organized and intellectually stimulating quiz. Many commended the diverse range of questions that challenged their entrepreneurial knowledge and problem-solving skills.



Boot camp - Business Model Canvas Workshop

Innovation and Entrepreneurship club, under Pre -Incubation Unit of Manav Rachna University in association with AIC IIT Delhi Sonipat Innovation Foundation organised a Bootcamp - Business Model Canvas Workshop on September 14, 2023. The Bootcamp was curated to cater to aspiring entrepreneurs and students who are keen on mastering the art of creating startups and business models. It helped the participants to gain valuable insights to serve a solid foundation for creating startups. The students were also involved in a fun and creative activity wherein they made charts on an innovative product based on SCAMPER technique using stationary items like sticky notes, chart papers, sketch pens. They also presented their unique and innovative ideas in front of everyone.





ORIENTATION SESSION ON BUSINESS SIMULATION

An orientation session on business simulation games was conducted on 18th September, 2023 that made a student understand the different facets of business decisions and what a start-up needs to focus on was discussed through an online experience in this activity. Dr. Bindu Agarwal, certified Master Business Simulation coach guided the students and took them through this online experience. We received over 40 student registrations where students registered for 100 rs each. The student had to name their venture, decide the team members and their roles, decide on the product sales, manufacturing capacity channels along with the cost and revenue streams. The student teams was also supported by Dr Pragati Chauhan in making their decisions and guiding them through this online business experience. A total of 40 students were present in the session.



Internal Hackathon, AVISHKAR 2023

Internal Hackathon AVISHKAR 2023 Event of Smart India Hackathon (SIH) 2023 was conducted at Manav Rachna University on **20th September 2023** by the IIC team. As per MoE Innovation Cell-AICTE directive, a team of technical experts from the industry was invited as judges to MRU to evaluate the idea solution and its implementation and other parameters to specific problem statements demonstrated by several competing teams of our Engineering students and select the teams to be nominated for SIH 2023 registration for final competition at National level. Each team had 6 students with at least one female student in each group. 18 teams participated in the internal Hackathon held at

Manav Rachna University @ HB-02. Students participated enthusiastically and presented their solutions to the Jury members.

Mr. Pranav Chauhan (Technical Manager, Design Tech Pvt. Ltd), Dr. Kiran Khattar (Associate professor at BML University) and Dr. Devnajali (Associate professor at BML University) were the three judges invited from industry. The evaluation process was done with a solution presentation as per the SIH 2023 format and students demonstrated the basic functionalities of their solutions in both hardware and software category. The rigorous evaluation process and feedback done by all the jury members were constructive for the teams to understand their shortcomings and solution improvement. Jury members congratulated all the team members and gave them best wishes for the national level (Smart India Hackathon 2023) event.



Industrial Visit to NSIC **(National Small Industries Corporation)**

The Innovation & Entrepreneurship Club, under the Pre-Incubation Unit at Manav Rachna University, organized an industrial visit to the National Small Industries Corporation (NSIC), under the Ministry of Micro, Small, and Medium Enterprises (MSME) of the Government of India on September 21, 2023. NSIC plays a pivotal role in supporting the growth of micro, small, and medium enterprises (MSMEs) across the nation. This visit was aimed to provide students with valuable insights into entrepreneurship, MSMEs, government schemes, and practical aspects of establishing and running a business. A total of 55 participants embarked their journey to NSIC.



Report on Industrial Visit to NSIC
(National Small Industries Corporation)

The Innovation & Entrepreneurship Club, as part of the Pre-Incubation Unit at Manav Rachna University, organized an industrial visit to the National Small Industries Corporation (NSIC) on September 21, 2023. NSIC, operating under the Ministry of Micro, Small, and Medium Enterprises (MSME) of the Government of India, plays a pivotal role in supporting the growth of micro, small, and medium enterprises (MSMEs) across the nation. This visit aimed to provide students with valuable insights into entrepreneurship, MSMEs, government schemes, and practical aspects of establishing and running a business. A total of 55 participants embarked their journey to NSIC.

The visit commenced with an engaging opening session led by Mr. Shakeel Ahmed Khan, an experienced mentor at NSIC. Mr. Shakeel Ahmed Khan elucidated the purpose and objectives of the visit, emphasizing the crucial role of NSIC in India's economic landscape. He elaborated on how NSIC drive innovation, create job opportunities, and promote self-sufficiency. During this session, he provided a comprehensive overview of various government schemes tailored to support budding entrepreneurs in the MSME sector.

The visit included stops at different laboratories within the premises, enabling students to gain hands-on experience with various machinery, their production capacities, and pricing structures. This practical exposure was invaluable for students contemplating their entrepreneurial endeavours, as it allowed them to assess the equipment requirements for their business concepts.

Additionally, Mr. Khan enlightened students about a 15-day course sponsored by the Government of India. This course equips aspiring entrepreneurs with the knowledge and skills needed to secure loans for their business ideas, effectively navigating the financial aspects of entrepreneurship. The visit to NSIC exemplified the Innovation & Entrepreneurship Club's commitment to its objectives at Manav Rachna University. It empowered students with practical know-how and resources, preparing them for their entrepreneurial journeys while contributing to the advancement of India's MSME sector. We extend our heartfelt appreciation to NSIC for their gracious hospitality and invaluable insights.



Workshop on Industry 4.0

Workshop on Industry 4.0 was organized at MRU in NF 01 on 27th Oct. 2023. It is a revolutionary concept encompassing the integration of advanced technologies to enhance automation in various industries. It aimed to impart knowledge on the practical implementation of automation through the

use of relays, Arduino, Raspberry Pi, and robotic arms, with a focus on communication using Python programming.

Mr. Manaj Yadav, a distinguished expert from SVR Infotech, Pune gave his practical insights into the application of Industry 4.0 technologies. His expertise in automation, relay systems, Arduino programming, Raspberry Pi applications, and robotic arm control through Python programming made him an ideal resource person for this workshop.

The workshop covered a wide range of topics such as Introduction to Industry 4.0 through which students have basics of Automation through which they Explore the role of relays in automation and their application in various industries. Through the use of Arduino and Raspberry Pi which can be integrated via Arduino and python programming for automation purposes. An in-depth look into Python programming for effective communication between automated systems through Robotic Arm Control.

The Industry 4.0 workshop conducted by the SAE Society of MRU, featuring Mr. Manaj Yadav from SVR Infotech, Pune, was a resounding success. Participants gained valuable insights into the practical applications of automation technologies, equipping them with the knowledge and skills needed for the evolving landscape of Industry 4.0.



Report on Digital Marketing Workshop

The IIC at the School of Management and Commerce, in collaboration with Yung Minds, Coordinated by Prof (Dr) Yogita Sharma conducted a comprehensive 10-hour Digital Marketing Workshop over three days from October 12 to October 17, 2023. This event was aimed at equipping participants with the latest digital marketing strategies and tools to help them excel in the ever-evolving world of digital business.

Mr. Anurag, who is an expert in his field, covered the fundamentals of digital marketing, including SEO, content marketing, and social media marketing. The speakers delved into the intricacies of search engine optimization (SEO), explaining how to improve a website's search rankings and increase online visibility. Focus on content marketing and the effective use of social media platforms for business promotion was also delivered during the session. The workshop also explored the world of social media advertising, discussing the advantages of various platforms and how to run successful campaigns. The interactive sessions facilitated meaningful networking opportunities among the attendees.

The workshop concluded with sessions on email marketing, paid advertising, and analytics.

The 10-hour Digital Marketing Workshop was a resounding success, providing attendees with a holistic understanding of digital marketing and its practical applications. The collaboration between the Innovation and Entrepreneur Club, Yung Minds, and Vidya Sakti created an enriching learning environment that will undoubtedly benefit the participants in their academic and professional journeys.

Workshop on ATV Design and Fabrication

Workshop on the design and fabrication of All-Terrain Vehicles (ATV) at the Dr. O P Bhalla Innovation and Incubation Center on October 31, 2023. The event aimed to equip participants with the necessary skills and knowledge required for the development of ATVs, specifically for SAE mBAJA and ATVC competitions.

Mr. Karan Khanduja, alumni of 2023 batch with their team mates offer insight to the workshop with the ATV fabricated to compete in the mBAJA 2023. The workshop covered various crucial aspects for the design and fabrication of ATV such as Design Principles. The importance of adhering to engineering principles in the conceptualization and design phase, ensuring safety, efficiency, and compliance with competition regulations. Fabrication Techniques need to be in consideration for fabrication process, materials selection, and manufacturing techniques essential for building a robust and high-performance. For testing and validation, Insights into the testing procedures required to validate the performance and safety of the vehicle, with a focus on meeting competition standards.

Emphasis on effective teamwork and communication within the design and fabrication teams, recognizing the significance of collaborative efforts in achieving success. Always adhere with competition Guidelines that offer Guidance on understanding and meeting the specific criteria outlined by SAE for mBAJA and ATVC competitions, ensuring participants are well-prepared for the challenges they might encounter, otherwise wise teams may not participate if they haven't met the predefined objectives.



Arduino & Robotics Workshop

An Arduino and Robotics Workshop was organized by MRU-IIC and Department of Computer Science & Technology, MRU on 6th and 7th November, 2023. The session was conducted by Mr. Vikram Kumar, IIT Chennai, Alumni and Science Communicator. He provided an immersive learning experience for enthusiasts and beginners alike. The workshop aimed to acquire a substantial amount of knowledge in areas such as the basics of MATLAB, its operations, initiating Arduino operations, coding for various sensors in Arduino, and fundamentals of electrical and electronics.

By this workshop, students not only had a functional understanding of Arduino and robotics but also gained the confidence to continue experimenting and building on their own. The event successfully bridged the gap between theory and application, leaving participants inspired to further explore the exciting possibilities at the intersection of Arduino and robotics. Students also created mini-projects using Arduino and Matlab.



Workshop on 3D Modelling Software

Institution Innovation Council (IIC) of Manav Rachna University organized a one day event of "3D Modelling Software" on 9th Nov. 2023. The one-day training session delivered by Dr. JP Sharma, aimed to introduce engineering students to the fundamentals of 3D modeling software, providing them with practical skills applicable to their field. The session commenced with an overview of 3D modeling, its applications in engineering, and its relevance in various industries. Participants were introduced to the user interface of the 3D modeling software, navigating through basic tools and functionalities. The training covered creating basic shapes and employing fundamental modeling techniques to manipulate and refine these shapes. Emphasis was placed on precision tools and measurements within the software, highlighting their importance in engineering design. Participants were introduced to more advanced features such as modifiers, constraints, and assembly techniques to create more complex structures. Hands-on exercises were conducted, allowing students to apply the concepts learned during the session. They worked on simple design projects under guidance. A total of 17 Students attended the workshop.

Key Takeaways:

- Understanding of the basic principles and functionalities of 3D modeling software.
- Ability to create and manipulate basic shapes and structures.
- Familiarity with precision tools and measurements for accurate designs.
- Exposure to advanced features enabling more complex modeling.



Workshop on Latest Technological Trends and Innovation Culture

On 24th November 2023, Manav Rachna University's Institution Innovation Council (MRU-IIC) in collaboration with the Department of Computer Science & Technology, orchestrated a session aimed at enlightening the first year students of B.Tech, Mechanical Engineering and B.Tech, Robotics & AI, about the paramount importance of innovation in today's dynamic technological landscape.

The event commenced with an enlightening address by Prof. Shruti Vashisht, Dean Academics, MRU illuminating the myriad resources available within our university to foster innovation. Prof. (Dr.) Goldie Gabrani, ED and Dean Research and Development took the stage subsequently, elucidating

the diverse research facilities available on campus. To further enrich the University innovation culture, Prof. (Dr.) Parneeta Dhaliwal, Director IIC provided invaluable insights into project competitions and mentorship opportunities offered by our faculty. Following this, Prof. (Dr.) Ajit Katiyar, Head Department of Mechanical Engineering, enthralled the audience with a comprehensive discourse on the technological domain of Mechatronics.

Dr. Mamta Arora, who expertly anchored the entire event, brought the proceedings to a close with grace and warmth, leaving the audience inspired and motivated. The session was very well coordinated by Dr. Ruchi Gupta, Assoc. Prof, Dept. of Sciences.



Hunters for Hire

Hunters for hire was an event that involved an element of fun accompanied with solving some clues that were hidden in the campus. The participants went around the campus on a hunt solving the puzzles. The event started in the afternoon with the first clue outside the I block sending students to go on a sprint around the campus. They went to important locations such as the Ideation and Innovation Lab, a place students can go to with ideas and come back with tangible real world products. All the riddles

had an entrepreneurial twist. Running in herds to get ahead of one another, with almost 150 participants. It had questions centred around entrepreneurship and it helped students learn about the entrepreneurship cell on the campus by giving students an idea of the available options to grow and learn with the campus.



Code and Innovate: A workshop on UX/UI Automation with APIs

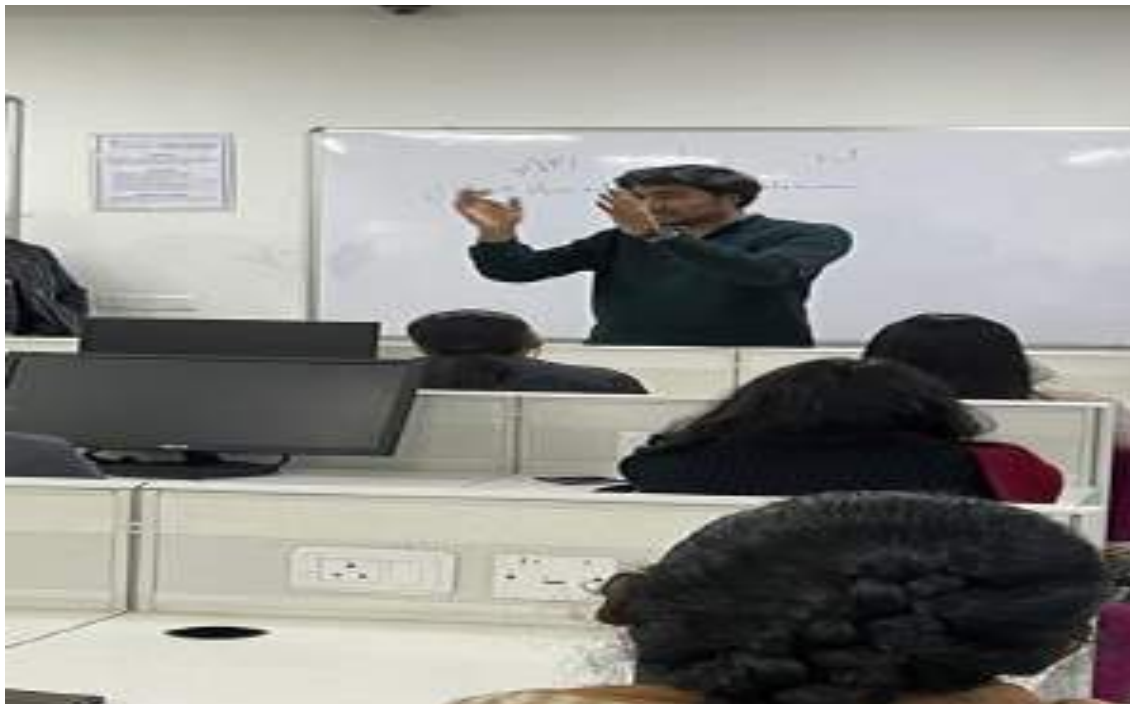
Institution Innovation Council (IIC) & RCC (Research Cluster of Computing) of Manav Rachna University organized a 2 days long Workshop on “Code and Innovate: A workshop on UX/UI Automation with APIs” from 12th January to 15th January, 2024, which was a comprehensive event aimed at providing insights into various aspects of modern software development and automation. Mr. Suyash Sharma was the key speaker for the event. Mr. Suyash Sharma is the alumni of batch 2018-2022. He is working as a software engineer, IDEMIA and he has over 2 years of experience.

UX/UI automation plays a pivotal role in enhancing the overall user experience and interface design by streamlining and expediting various processes. Automation not only reduces the likelihood of human errors but also ensures consistency in design elements and interactions across different platforms and devices. By automating repetitive tasks such as user testing, prototyping, and design updates, UX/UI professionals can allocate more time and energy to creative and strategic aspects of their work. This not only leads to increased efficiency but also enables teams to iterate and innovate more rapidly, ultimately delivering products and services that meet user needs more effectively. In essence, UX/UI automation is indispensable in achieving a seamless and user-friendly digital experience while allowing designers to focus on the human-centric aspects of their craft.

In alignment with the aforementioned perspective, a workshop on UX/UI automation was conducted collaboratively by senior IIC students and industry expert, guided by faculty members from IIC. The goal of the workshop was to furnish participants with hands-on experience and practical insights into the realm of UX/UI automation. The interactive and collaborative design of the workshop included senior student coordinators from RCC serving as mentors to guide and assist their junior counterparts. The workshop aimed to equip junior students with foundational skills in UX/UI automation, encourage peer-to-peer learning, facilitate collaboration among students, provide hands-on exposure to real-world UX/UI automation scenarios, and cultivate the ability to independently design and code. Commencing with an Introduction to UX/UI Automation, the workshop covered fundamental concepts and practical exercises to immerse participants in the implementation of automation-related theories. The session also emphasized the significance of UX/UI automation in contemporary technology, elucidating its role in ensuring a seamless and user-friendly digital experience. As the workshop progressed, attention was devoted to practical aspects such as project development and deployment scenarios specific to UX/UI automation. The sessions delved into the intricacies of deploying automated UX/UI solutions, stressing their pivotal role in enhancing efficiency and meeting the evolving demands of digital experiences. Overall, the workshop aimed to empower participants with practical skills and a comprehensive understanding of UX/UI automation principles. A total of 22 students attended the workshop.

The workshop was a resounding success, providing participants with valuable insights into the latest trends and technologies in software development. The collaboration between the Innovation and Incubation Council and the Research Cluster of Computing facilitated a rich learning environment, fostering skill development and knowledge enhancement among the participants. The organizers express their gratitude to the expert instructor Suyash Sharma, for their invaluable contribution to the

success of the workshop. In summary, the workshop delivered positive outcomes for both junior and senior participants, with juniors gaining practical skills and confidence, and seniors refining their leadership and mentoring abilities.



“Innovate with Java: A visual guide to project development”

Institution Innovation Council (IIC) and Research Cluster of Computing (RCC) of Manav Rachna University organized an Expert Talk on “Innovate with Java: A visual guide to project development” on 23rd January, 2024. Mr. Hardeep Singh was the invited speaker for the session, software engineer, IDEMIA having over 5 years of experience in spring boot, Java, Jenkins, AWS DEVOPS and kibana.

The event commenced with an enlightening address by Prof. (Dr.) Goldie Gabrani, ED and Dean Research and Development illuminating the myriad resources available within our university to foster innovation. Prof. (Dr.) Parneeta Dhaliwal, Director IIC provided invaluable insights into project competitions and mentorship opportunities offered by our faculty members in the domains of Innovation, Entrepreneurship, and Startups. Mr. Hardeep Singh enlightened into the process of Project development, HTTP methods and protocols, database Connectivity, Deployment of Models and Project testing.

The talk was followed by an interactive question-and-answer session, allowing the students to engage with the speaker directly. Attendees had the opportunity to seek clarification on specific concepts and delve deeper into the practical aspects of the technologies enlightened by the speaker during his session. A total of 22 students attended the talk.

The session was concluded with a vote of thanks to Mr. Hardeep Singh by Dr. Ranjna Jain, RCC Coordinator. Such expert talks facilitated our students in networking opportunities with industry professionals which will lead to mentorship, collaboration, internships and job opportunities in future.



Unleashing Innovation: Machine Learning Essentials for Beginners

Unleashing Innovation: Machine Learning Essentials for Beginners

Institution Innovation Council (IIC) & Department of Computer Science & Technology (DoCST) of Manav Rachna University organized a 5 days long Workshop on “Unleashing Innovation: Machine Learning Essentials for Beginners” from 29th January 2024 to 2nd February 2024, which was a comprehensive event with the aim to empower junior students with fundamental skills in Machine Learning, foster peer-to-peer learning and collaboration among students for upcoming competitions and ongoing projects. The training will be conducted by Ms. Liza kansal and Ms. Anoushka Pandey, student coordinators of IIC and students of AIML 6th semester under the guidance of Dr. Parneeta Dhaliwal and Dr. Ranjna Jain. These students have presented many research papers in the field of Machine Learning and were also finalist in UPES 4.0 hackathon conducted by UPES, Dehradun.

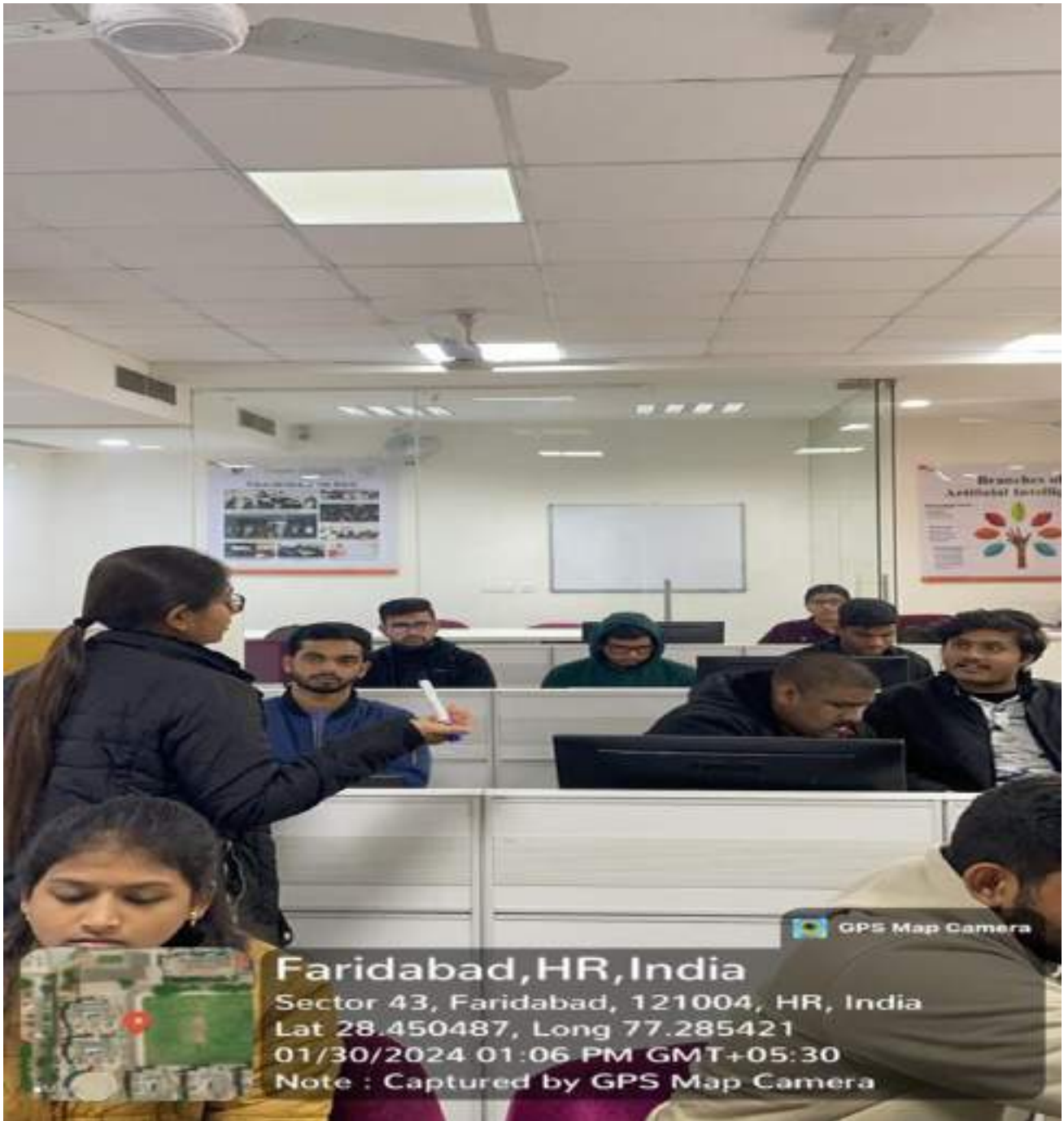
The workshop on Day 1 commenced with an insightful introduction to the field of Machine Learning & python programming. On Day 2, The speaker provided a holistic overview, emphasizing the significance of machine learning in today's digital landscape. Building on the foundational knowledge, the workshop transitioned into an in-depth discussion on preprocessing techniques, importance of data cleaning, Data transformation techniques and Data integration and reduction techniques. On Day 3, Exploratory Data Analysis (EDA) was covered in which Understanding EDA and its significance in data analysis, Descriptive statistics, Data visualization and Exploring relationships between variables were covered. On Day 4, Introduction to regression analysis, Simple linear regression, Multiple linear regression and Hands-on practice on Implementing regression models using Python libraries like scikit-learn was covered. On Day 5, Introduction to classification analysis: Concepts and applications, Binary and multiclass classification algorithms: Logistic regression, decision trees, and random forest, Model evaluation metrics: Accuracy, precision, recall, F1-score, and ROC curve and Hands-on practice on Building and evaluating classification models using Python libraries was performed.

During the whole session, attention was devoted to practical aspects on each & every step. Overall, the workshop aimed to empower participants with practical skills and a comprehensive understanding of machine learning techniques. A total of 33 students attended the workshop.

The workshop ended with a vote of thanks to Ms. Liza kansal and Ms. Anoushka Pandey with a token of thanks. We are thankful for their valuable time that they spare for the workshop.



Unleashing Innovation: Machine Learning Essentials for Beginners



Unleashing Innovation: Machine Learning Essentials for Beginner

IIC Annual Reports

- [2022-23](#)
- [2021-22](#)
- [2020-21](#)