



[MAHARAJA AGRASEN INSTITUTE OF TECHNOLOGY] IIC Id: IC 201810741

**A. About IIC Institute:**

**Vision**

- To create start-up and Entrepreneurship Mechanism on Priority through Maharaja Agrasen Incubation centre.
- To develop effervescent local Innovation ecosystem system.
- To promote innovation in the Institution through various modes leading to Innovation.
- To promote Patents.

**Mission**

- To conduct various, start-up & Entrepreneurship activities which can motivate students to initiate some start up ideas.
- To provide an opportunity for developing prototype new ideas.
- To provide mentoring by Excellent Academic & Industrial Professionals.
- To enhance Industry-Academia relation more and more.

Our university is located in rural area and we are genuinely trying to motivate students who are from rural background. Increasing graph of student's response is amazing during past 5 years since the inception of IIC.

Our main focus is to enhance the innovation in the campus and to make the youth proactive in the field of innovation. We are trying to boost the morale of students and young faculty members. We have also organized various workshops and webinars in a variety of innovative domains. The main are Healthcare, Artificial Intelligence, Cloud computing, Virtual Reality etc. In addition to this we are also running Webinar series in the domain of "Smart Vehicles & Robotics & Drones" by eminent speakers across the globe who have actually involved in the Research. We are trying to target Real time problems and trying to find out innovative solutions.

**B. Brief mention of key functionaries at the IIC Institute**

**President:**

**Prof. (Dr.) Aparna N Mahajan** holds the responsibility of President IIC [MAIT].

Her responsibility includes organization & coordination of all IIC activities (Self, IIC & MIC). She also maintains connect with various eminent Academic & Industry personalities for events. Monitoring responsibilities of all faculty and student coordinators for proper IIC functioning also falls in her responsibilities. She also ensures that every activity shares a relevant technical contribution and value addition. Social media promotion is also handled by her.

**Vice President:**

**Er. Virat Khanna** is holding Vice president Position. He is mainly involved in monitoring and organizing the events. He has organized monthly Webinar series on Nano Technology of which 8 parts are conducted.

**Convenor:**



**Er. Madhu Bala** holds the responsibility of Convener. She is responsible for carrying out the preliminary and follow up tasks that ensures the smooth coordination of the activities. Further she also promotes all the events on various platforms so as to bring maximum participation. She is also responsible for different innovation activities which can help to boost the various project competitions. She is also mentoring Hackathon projects since the inception of Hackathon Competition & won SIH 2019 & SIH 2020 under her mentorship.

**Coordinators:**

1. **Er. Ritika Sharma:** She is Start up coordinator and one of the prime faculty of IIC . She is promoting major activities especially start up related and promoting it. She is also another IIC member who is mentoring Hackathon projects since the inception of Hackathon Competition & won SIH 2019 & SIH 2020 under her mentorship. Though we are in process to establish Incubation & star up cell her role is to create more and more innovative ideas and guide the students accordingly. She continuously holds meeting with students to keep the track.
2. **Dr. Himanshu Sharma:** He is NISP coordinator & in a process to form the applicable NISP policy so as to make proper implementation. He has also taken session on the same.
3. **Dr. Rahul Gupta:** He is Innovation Ambassador who is encouraging students through his Startup .He has also guided a **Solar Car Project**.
4. **Dr Shilpa Gupta:** She is looking after patent filing, processing and promoting the IPR related activities. Her responsibility also includes motivating the students for IPR related activities and enhancing participation.
5. **Er. Ranjit Kumar:** He is Social Media Coordinator and ensures that all students follow MIC/IIC page/account on social media to get first-hand information. He creates and manages IIC, MAU page/account on Facebook, Twitter, Instagram, LinkedIn, YouTube and other relevant social media platforms. He is posting all the relevant information about council meeting resolution and action plan, IIC activities and follow/tag MIC/IIC page and posts on these platforms.

**Journey of IIC established at the Institute**

The journey of IIC was very interesting somewhere challenging in spite of pandemic during 2020-2021. The support from MIC – MHRD is commendable. All the queries we have faced are always answered by them. We were able to conduct various IIC and self activities online. Experts from core technological domains contributed their expertise. We have also conducted coding competition and Project Idea submission competitions along with technical poster making competition. The objective behind this was to engage the students as well as to promote their creativity in the field of Technology. Total **42 patents** were published by young faculty members and students. Apart from the Technologies like AI, VR we have also focused to widen the understating of innovative developments in Smart Vehicles

Nano Technology. We are also promoting and funding various Startup under incubation Centre.

Further, participation in internal Hackathon and Smart Hackathon has provided the students a new insight of Technology. The MIC activities given by MHRD also gave a value addition in the latest areas of Technology and helped all of us for Technological enhancement. Two Startups from Maharaja Agrasen University have been showcased at Pragati Maidan New Delhi on National Technology Day (17<sup>th</sup> May 2023) and Akhil Bhartiya Shiksha Samelan (29<sup>th</sup> July 2023). Both the Startups were highly appreciated by Dr. Abhay Jere Vice Chairman AICTE & Education Minister Dharmendra Pradhan Ji.



**Dr. Rahul Gupta, HoD, EEE and two students from CSE attended IDE Bootcamp at NITTTR, Chandigarh from 22 June, 2023 -26 June ,2023.**

**Diversified representation in the IIC established at the institute from industry, Interdisciplinary & Departments/ Units etc.**

Our IIC Cell is continuously conducting various outcomes based activities e.g. workshops on IPR, latest Innovation technologies, Startups & Entrepreneurship in which students of all the schools of our University (Engineering, Management, Pharmaceutical & Sciences) participate proactively. We also motivate students and young faculty members to organize and participate more & more workshops and webinars so that they can gain knowledge in different domains & utilize properly.

**C. Portfolio/graphical/Tabular representation of Resource strength (human capital and Physical capital) of the IIC institution**

**Total No. of IIC Coordinators:**

Sr. No.	Name of Member	Member Type (Teaching/ Non-teaching )	Key Role/ Position assigned in IIC
1	Dr. Aparna N Mahajan	Director, MAIT	IIC President
2	Er. Virat kanna	Teaching	IIC Vice president
3	Er. Madhu Bala	Teaching	IIC Convener
4	Er. Ranjit Kumar	Teaching	Social Media Coordinator
5	Dr. Rahul Gupta	Teaching	Innovation Ambassador
6	Er. Kunal Singh	Teaching	Innovation Activity
7	Er. Ritika Sharma	Teaching	Startup Activity Coordinator
8	Dr. Shilpa Gupta	Teaching	IPR Activity Coordinator
9	Er. Mamta	Teaching	Internship Activity Coordinator
10	Dr. Himanshu Sharma	Teaching	NISP Coordinator

**Total No. of IIC Members: 14 (11 coordinators & 3 Members)**

Sr. No.	Name of Member	Member Type (Teaching/ Non-teaching )	KeyRole/ position assigned in IIC
1	Dr. Deepankar Ashish	Teaching	IIC Member
2	Dr. Rahul Gupta	Teaching	IIC Member
3	Er. Amit Verma	Teaching	IIC Member

**Total No. of Innovation Ambassadors:**

Sr. No.	Name of Member	Expert Area
1	Dr. Shilpa Gupta	IPR & Technology Transfer
2	Er. Madhu Bala	Pre- Incubations & Incubation Management
3	Er. Ritika Sharma	Pre- Incubations & Incubation Management
4	Dr. Rahul Gupta	Design thinking & Innovations
5	Dr. Himanshu Sharma	Entrepreneurship Development Program



**MAHARAJA AGRASEN UNIVERSITY  
INSTITUTE OF TECHNOLOGY**



**Pre-Incubation/Incubation Units-Registered through Society Registration ( in Process)**

**Total No. of External Members:**

Sr. No.	Name of Member	Member Role
1	Er Shubham	Start up/ Alumni Entrepreneur
2	Dr Yajvender Pal Verma	Incubation Centre
3	Er Nimish Mehra	Expert from nearby Industry/Industry association/ Ecosystem Enabler
5	Dr Anupma Thakur	Postdoctoral Researcher Purdue School Of Engineering & Technology Indiana University USA
6	Dr. Debanik Roy	Scientist BARC Mumbai

**Total No. of Faculty Mentors From Portal**

Sr. No.	Name of Member	Members of SIH
1	Dr A N Mahajan	NEAT , Cyber Security Hackathon 2023
2	Er. Madhu Bala	Smart India Hackathon –Software Edition
3	Er. Ritika Sharma	Smart India Hackathon –Software Edition
4	Er.Kunal Singh	Smart India Hackathon –Hardware Edition

**D. Highlight Facilities, Infrastructure of Pre-Incubation & Incubation kind and Student bodies/clubs engaged in promotion of Innovation and Entrepreneurship in the campus**

**E. Highlight Achievements (Narrative/Graphical/tabular representation)**

Number and Different types of I&E and IPR activities Conducted	I&E activities = IPR activities=
No. of student's & faculty ideas generated	Er. Kunal Singh=11 Dr. Rahul Gupta=02 Ajay – 01 Nistha =01
No. of student's & faculty Innovation/prototypes developed	student's Innovation=05 faculty Innovation=04 prototypes developed=09
No. of IPs generated, published and granted	IPs generated 9 IPs published 9 IPs Granted=01
No. of Student & Faculty Start-ups/Ventures established	6
Amount spent on promotion and awareness generation on Innovation Entrepreneurship in the campus	300000
Amount grant or fund supported to student & Faculty lead Innovations, start-ups and IPR	2,50000 for BMS
No. of Technology Transfer and Commercialization happened	02



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S.No.	Name of Faculty	Title of Patent	Date of Patent filled/ Published.	Filled/Published
1	Sushil Kumar Bansal	Systematic Approach to Study the Early Detection, Prediction and Diagnosis of the Brain Stroke Through Six Sigma Methodologies	31/08/2022	Published
2	Sushil Kumar Bansal	Internet of Things(IOT),Image Processing and Machine Learning Techniques in Smart Home Security	1/9/2022	Published
3	Ranjit Kumar	An Augmented Signcryption Cryptosystem For IOT Security with Elliptic Curve	6/9/2022	Published
4	Ranjit Kumar, Rahul Gupta, Ritika Sharma, Vinod Kumar	A caricatured Narrowband for Smart Grid IoT Security with Finite Fields and Discrete Algorithms	25/09/2022	Published
5	Ranjit Kumar, Ritika Sharma, Rahul Gupta	Optimization in Smart Grid using Advanced Control System Model	5/10/2022	Published
6	Ranjit Kumar, Sushil Kumar Bansal, Madhu Bala, Ritika Sharma	Designing a DWT with SPIHT Based Watermarking for Safekeeping and Ownership of Multimedia for Future Intensification of Source	12/10/2022	Published
7	Kunal Singh	Automatic multimode universal testing machine	5/11/2022	Published
8	Dr. Vinod Kumar, Ranjit Kumar, Gagan Prakash Negi	Extended Software Defined Networking (ESDN) Concinnity of Hetrogeneous Network	16/11/2022	Published
9	Ranjit Kumar, Rahul Gupta, Naveen Tyagi	Efficient threat Mitigation Framework (TMF) for Smart Grid IOT Environments	8/3/2023	Published

S.No.	Name of Faculty	Title of Patent	Date of Patent filled/Published with Country Name.	Filled/Published
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1.	Sushil Kumar Bansal	AI based waste management system	21/06/2023	Granted(Design)
2.	Pankaj Nanglia	Intellectual Property Office , India, Design	18/06/2022	Granted(Design)
3.	Paramjit Singh	Intellectual Property Office , India, Design	18/06/2022	Granted(Design)
<b>S.No.</b>	<b>Name of Faculty</b>	<b>Title of Patent</b>	<b>Date of Patent filled/Published with Country Name.</b>	<b>Filled/Published</b>
1.	Sushil Kumar Bansal	AI based waste management system	21/06/2023	Granted(Design)
2.	Pankaj Nanglia	Intellectual Property Office , India, Design	18/06/2022	Granted(Design)
3.	Paramjit Singh	Intellectual Property Office , India, Design	18/06/2022	Granted(Design)

**F. Highlight few best IIC Faculty/Student members and their achievements/ Rewarded for the innovations at different forum**

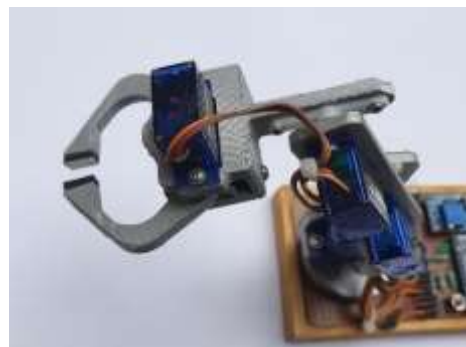
1. Er Madhu Bala : Excellent IIC Convener. Proactively involved in all the activities and active in promotion on social media. He is mentor for total 9 software projects & winner for 2 Hackathon competitions.
2. Er Ritika Sharma -Excellent Mentor for smart Hackathon Software & extremely proactive IIC Coordinator who is playing major role in IIC activities.
3. Er. Kunal Singh : He is excellent for innovation projects.

**Students :**

- Ajay Kumar      Student Coordinator – Overall Activities
- Harsh Rai        Student Coordinator IPR Activities
- Bhumika Garg    Student Coordinator Innovation Activities
- Nishtha           Student Coordinator Startup Activities

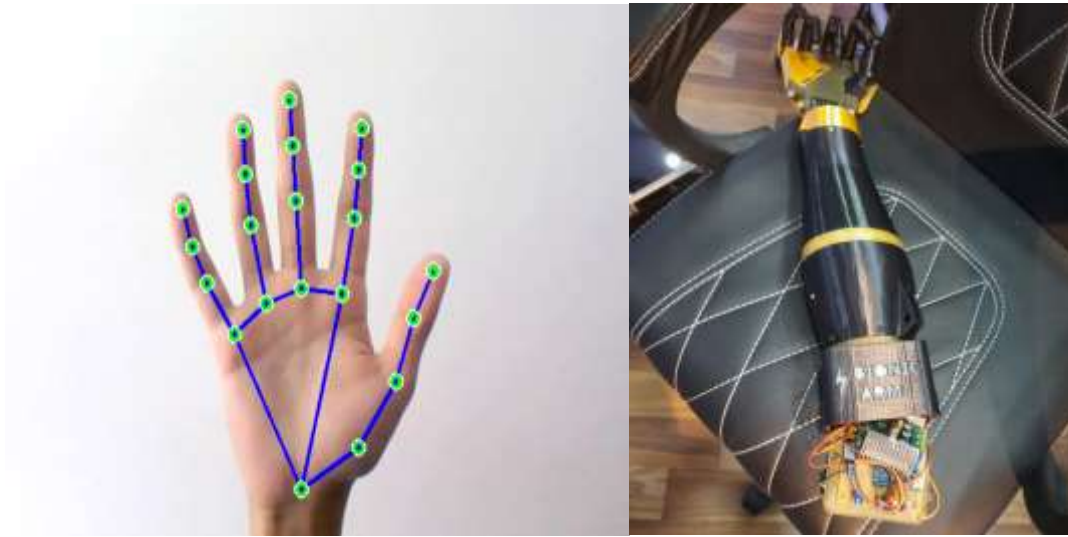
**G. Highlight selected best Innovations & images with mention of inventor/innovation name**

Two projects were developed in IIC research lab whose details are as follows:



**Haptic robotic arm**

**H. Highlight selected start-ups established by students/faculties with mention of founder/cofounder name**



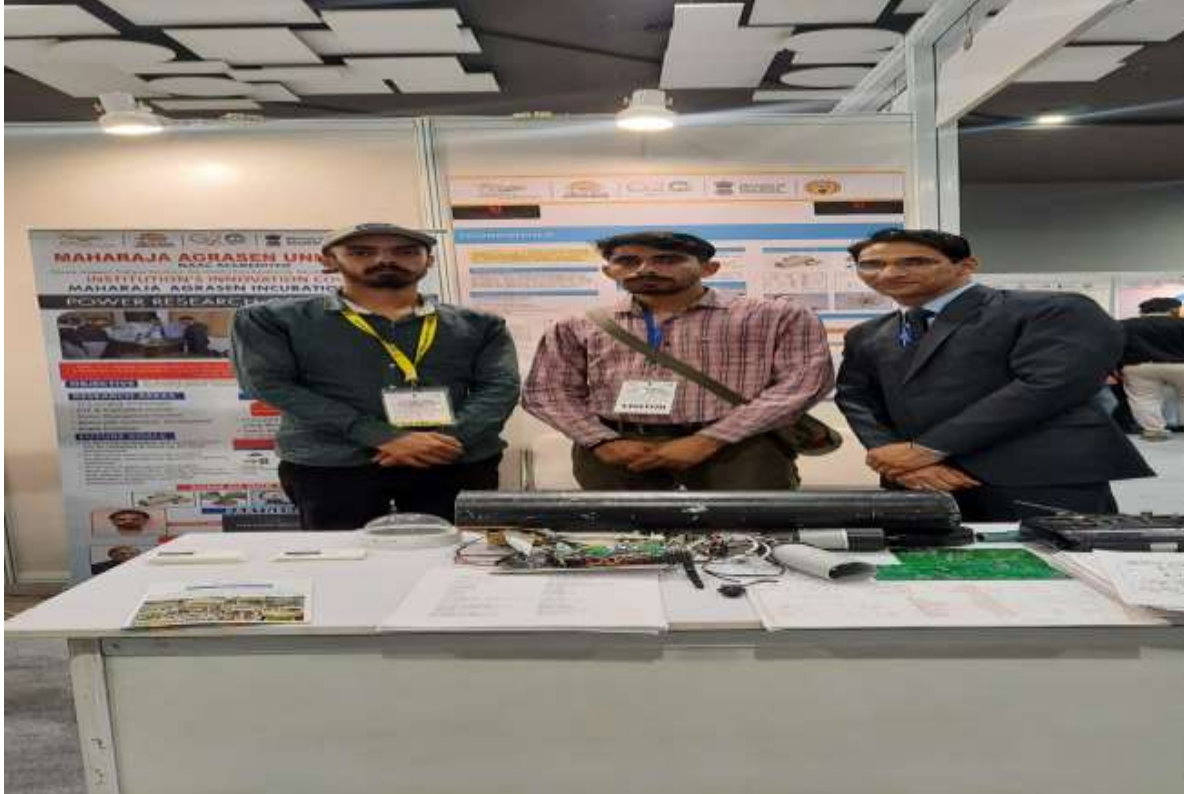
**Radio controlled advanced FPV long range areal vehicle**



Advanced FPV areal vehicle with radio control range of 1.5 km above ground, equipped with FPV system for surveillance. Applications are survelienve, defense applications.

**I. Participation of IIC-institute in various programs of Central and Stage Govt. Highlighting specially for the schemes or programs**

- ARIIA – participation and Rank – will opt for ARIIA next year.
- **NISP Adoption status** - Trained Faculty, Policy Formulation, Policy Implementation Policy has been uploaded Committee has been established.
- **11 Teams participated in Smart India Hackathon-2022.**



**J. Details of Social Media and connections of IIC Institute:**

**Facebook Link:**

<https://www.facebook.com/photo/?fbid=628523309281268&set=a.496457515821182>

**Twitter Link:** <https://twitter.com/IicMait/status/1617005081681104897/photo/1>

**Instagram Link:** [https://www.instagram.com/p/Cns-2a\\_LFfi/?utm\\_source=ig\\_web\\_copy\\_link](https://www.instagram.com/p/Cns-2a_LFfi/?utm_source=ig_web_copy_link)

**Linkedin Link:** [https://www.linkedin.com/posts/maharaja-agrasen-university-023b1996\\_workshop-iicmaithimachal-maharajaagrasenuniversity-activity-7022771461908049920-6WWP?utm\\_source=share&utm\\_medium=member\\_desktop](https://www.linkedin.com/posts/maharaja-agrasen-university-023b1996_workshop-iicmaithimachal-maharajaagrasenuniversity-activity-7022771461908049920-6WWP?utm_source=share&utm_medium=member_desktop)





**K. Testimonials from IIC members and external about IIC institute and IIC of MoE's Innovation Cell**



**Prof(Dr)R K Gupta Vice Principal ( MAU)**

IIC in doing excellent job since its inception in our University. I wish all the Best for future and congratulate for their achievements till now.



**Shri Suresh Gupta Project Incharge (MAU)**

I am thankful to MHRD for starting such an excellent initiative for all HEIs. I also assure full cooperation to IIC faculty members and students for developing innovative ideas and promotion of Start ups.



**Prof(Dr.) Aparna N Mahajan**

**-President IIC & Director MAIT**

*"To motivate & promote youth for Innovation and Research. I am impressed with professionalism, expertise and proactive approach of my IIC Team. I would recommend them to ramp their capacity and take IIC as a mission."*



**Er. Virat Khanna**

**-Vice-President**

*"To create future technology leaders it is important to nurture their ideas and minds right from the start and IIC's are doing wonders in this direction."*



**Dr Rahul Gupta**

**Innovation Ambassador**

I believe in truly motivating early stage start ups by providing practical platform through various exposure and Industrial Connect.



**Er. Madhu Bala**

**-Convener**

*"To find hidden talents and to bring them forward IIC's are providing a proper ecosystem to cultivate a sibling of innovation coming out of young minds."*



**Dr Himanshu Sharma**  
**NISP Coordinator**

Incubation opportunities are real challenges & new beginning of youth. My objective is to promote it as speedily as possible and provide the Start up platform.



**Er. Ritika Sharma**  
**-Startup Coordinator**

*“Start where you are and do what you can. Time does not wait for anyone; one has to follow the time. IIC is providing that platform where enthusiastic students can explore themselves.”*



**Dr. Shilpa Gupta**  
**-IPR Coordinator**

*“IIC integrates a wide spectrum of knowledge and skill ranging from the design of computer hardware, software systems, and telecommunication to the impact of information technology on society.”*



**Er. Ranjit Kumar**  
**-Social Media Coordinator**

“IIC has helped to spread the word about recent innovations by making genuine connection between Ministry of Education and youth”



**Dr. Pushvinder Jit Singh**  
**-Managing Director, Tynor Orthotics Pvt. Ltd.**

*“I strongly believe that MHRD through IIC has provides an excellent platform for young minds. IIC MAIT is doing great job at their level best. I wish all the Best for future.”*



**Dr. Y.P Verma**  
**- Member of Incubation Center**

*“MHRD has taken a great initiative by establishing IIC's and these councils are playing a major role in creating and developing innovative environments.”*



**Dr. Debanik Roy**

- Member of Incubation Center

Scientist, Division of Remote Handling & Robotics,  
Bhabha Atomic Research Centre,  
Department of Atomic Energy (DAE), Govt. of India,  
Mumbai



**Dr. Anupam Thakur**

Postdoctoral Researcher,  
Purdue School of Engineering and Technology,  
Indiana University, USA

**L. Images**



**EVRIC (E-Car) Startup at Pragati Maidan New, Delhi, Akhil Bhartiya Shiksha Samelan (ABSS) inaugurated by PM Modi ji**



**Dr. Abhay Jere Vice Chairman AICTE visited our stall**



**Dr. Rahul Gupta with Hon'ble Education Minister**

**M. Contact Details:**

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