



# CMR UNIVERSITY

Private University Estd in Karnataka State by Act No. 45 of 2013

## Cover Page of 7.3

In this file, we have merged all documents of sub-criterion of 7.3 which are shown below.

### 7.3 Institutional Distinctiveness

7.3.1 Portray the performance of the Institution in one area distinctive to its priority and thrust within 1000 words.

Response: **CMR University Innovation Center (CMRUIC)**



# CMR University Innovation Center

## The right Place for Innovation, Design Thinking, Startups and Centre of Excellences

CMRU Innovation Center (CMRUIC) is the Institute Innovation Center (IIC) of CMRU. It is a distinctive hallmark of CMRU, reflecting its priority and thrust towards promoting innovation and entrepreneurship. The CMRUIC serves as a dedicated hub for nurturing creativity, critical thinking, and technological advancements among students and faculty. By providing a collaborative environment equipped with state-of-the-art facilities, the center encourages interdisciplinary research, innovation, incubation, start-up, and development activities. The CMRUIC's primary objective is to bridge the gap between academic knowledge and practical application. It offers a variety of programs, workshops, and mentoring sessions that guide aspiring innovators through the intricacies of ideation, prototyping, and commercialization. Through partnerships with industry leaders and startups, the center ensures that the university community remains at the forefront of contemporary technological trends and business practices.

### Innovation Centre & Design Thinking Lab

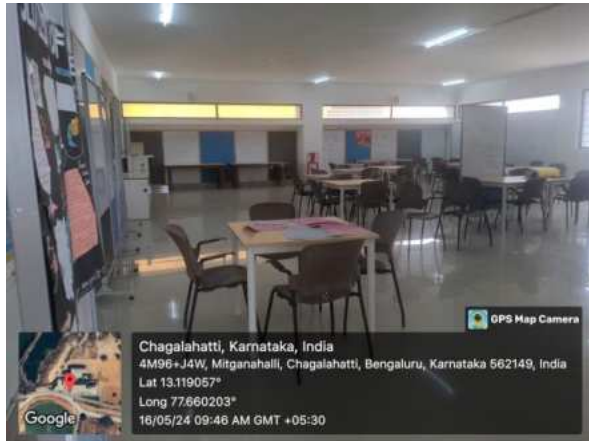
The Design Thinking Lab (DTL) at CMRU Lakeside Campus, a dynamic and inclusive space designed to spark creativity and catalyze innovation. It is a collaborative environment intended to foster an experimental culture on campus by promoting interdisciplinary and cross-stream engagement among students. The lab has thoughtfully crafted a supportive and stimulating environment where students can collaborate, conceive, and create products, services, or experiences benefiting society and encouraging innovating and solving current and future challenges.

Shri Venkat Venugopal - R&D Site Head & Director Engineering, Schneider Electric, India, inaugurated the 'Design Thinking Lab' on 17th March 2023, an in-house innovation lab to provide a dedicated space for students and professionals to work on their innovative projects. The Design Thinking Lab, located within the School of Engineering and Technology, spans an expansive area of 7000 square feet. It encompasses four distinct sections: the Presentation Area, Mini Presentation Area, Brainstorming Space, and Prototyping Zone. Equipped with state-of-the-art amenities, including whiteboards, pinboards, premium writing surfaces, cutting-edge sound systems, as well as an extensive array of tools and equipment for prototype development and testing, the Design Thinking Lab empowers students to address real-world challenges through the application of the Design Thinking Mindset.

# Snaps from the Innovation Centre & Design Thinking Lab

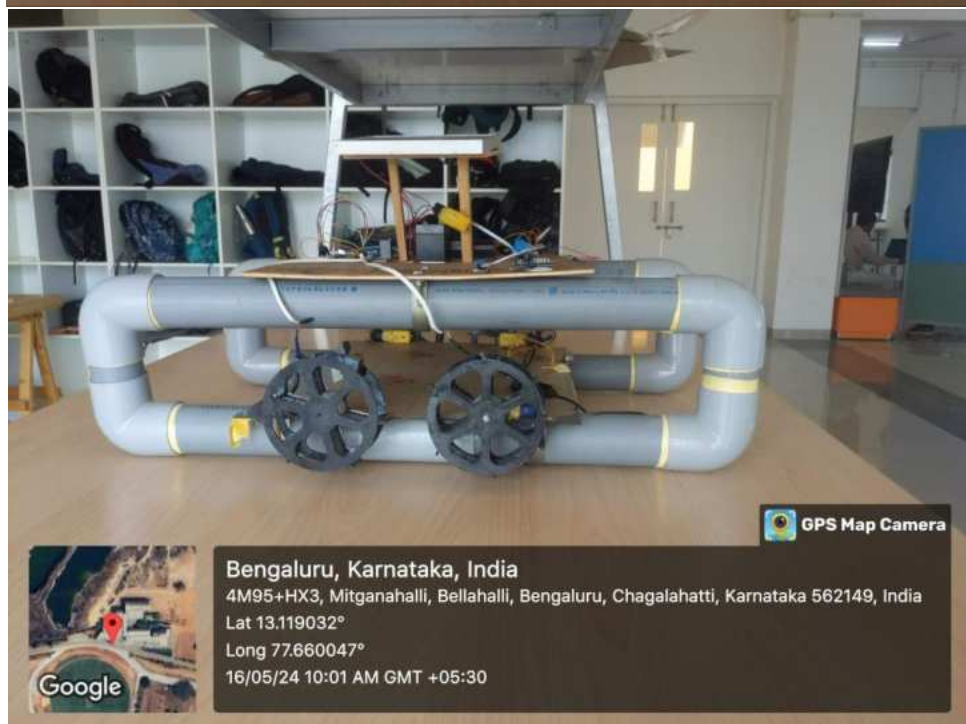


# Geotagged Photos:





*3D printer Provided to students under thingQbator cohort-6*



*Lakewater Monitoring System Project by Btech Students*

# Innovation & Entrepreneurship Labs at CMRU Lakeside

## Rapid Prototyping Lab

The Rapid Prototyping Lab at CMR University is a state-of-the-art facility dedicated to fostering innovation and practical learning experiences. This cutting-edge lab is equipped with advanced tools and technologies that enable students to bring their ideas to life with precision and efficiency.

Within the lab, we have two Fracktalworks dual extruder 3D printers named Julia, renowned for their high-quality prints and versatility. These printers offer students the capability to materialize their designs with exceptional detail and complexity. Additionally, we boast a laser cutter, further expanding the range of fabrication possibilities in the lab.

Complementing the advanced equipment, the lab provides a well-equipped and capable workstation environment. This enables students to seamlessly design, iterate, and refine their prototypes, facilitating a streamlined and efficient prototyping process.

The Rapid Prototyping Lab serves as a catalyst for creativity and innovation, empowering students to transform their ideas into tangible prototypes. With its professional-grade resources and dedicated support, the lab offers an invaluable platform for students to explore the realms of rapid prototyping and turn their concepts into reality.

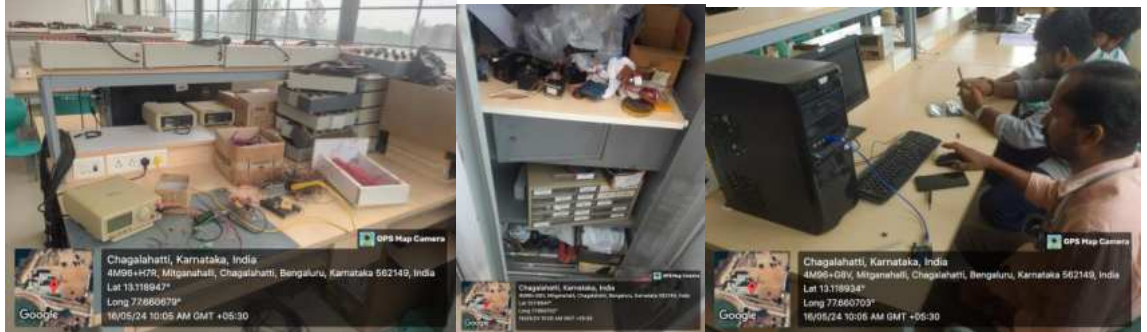


## Making with Electronics Lab

The Making with Electronics Lab at CMR University is at the forefront of innovation and hands-on learning. Our cutting-edge facility is designed to inspire creativity and provide students with practical skills in electronics.

Equipped with state-of-the-art tools and technologies, including oscilloscopes, a DC power supply, a soldering station, and multiple workstations, our lab offers students the resources they need to bring their ideas to life with precision and complexity. Whether it's designing circuits, prototyping electronic projects, or experimenting with components, our well-equipped workstations provide a seamless environment for design iteration and optimization.

By providing professional-grade electronics resources and fostering a culture of hands-on learning, the Making with Electronics Lab empowers students to develop real-world skills and become proficient in the field of electronics. It is a transformative platform that encourages exploration, innovation, and the practical application of knowledge.





## Mechanical Workshop:

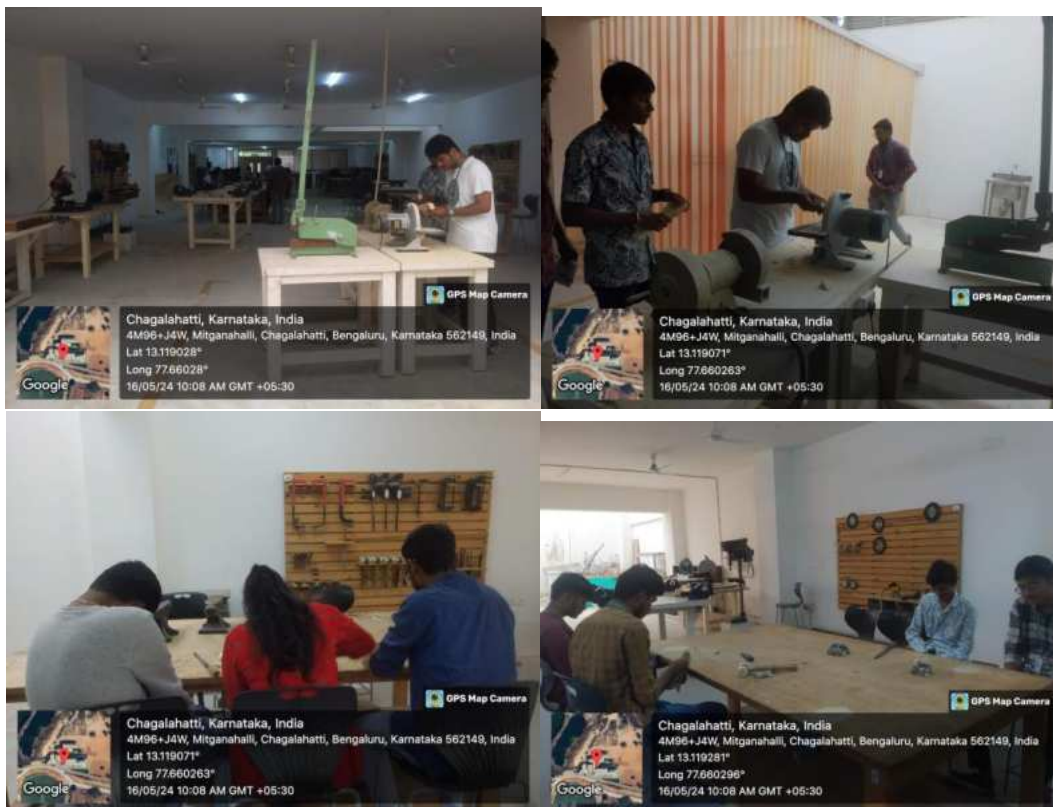
The Mechanical Workshop Makerspace at CMR University is a professional-grade facility dedicated to fostering innovation and hands-on learning experiences for students. Equipped with an extensive range of hand tools, power tools, and spacious workbenches, our Makerspace provides an ideal environment for students to turn their creative ideas into tangible mechanical prototypes.

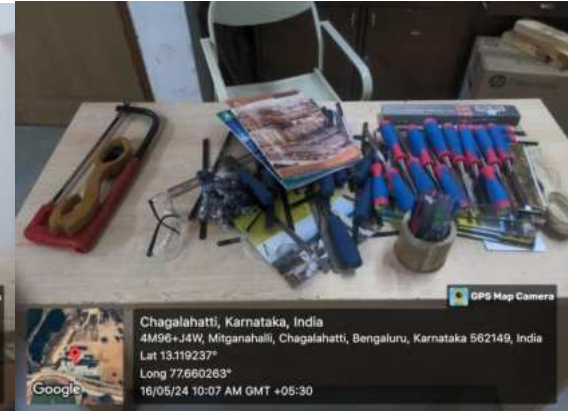
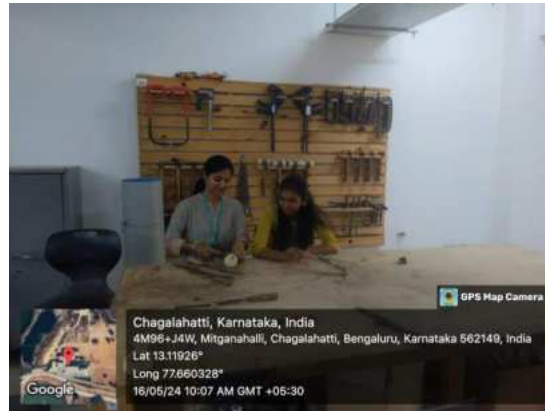
Within the workshop, students have access to a comprehensive collection of high-quality hand tools, ensuring they have the necessary equipment to handle various mechanical tasks with precision. From wrenches and screwdrivers to pliers and measuring tools, our Makerspace is well-equipped to support a wide range of projects and design iterations.

In addition to the hand tools, our Makerspace boasts an impressive array of power tools, including drills, grinders, saws, and more. These power tools enable students to shape, cut, and fabricate materials with efficiency and accuracy, enhancing their ability to bring their mechanical designs to life.

To further facilitate the creative process, our Makerspace provides ample workspace and well-designed workbenches. The spacious layout allows students to collaborate, experiment, and refine their prototypes in a comfortable and organized setting. Whether working individually or in teams, students have the freedom and flexibility to bring their ideas to fruition.

The Mechanical Workshop Makerspace at CMR University serves as a hub for mechanical innovation, providing students with the resources and environment they need to unleash their creativity and transform their concepts into physical prototypes. With its wide range of hand tools, power tools, and well-designed workspaces, the Makerspace offers a professional-grade platform for students to explore, design, and prototype their mechanical projects with precision and expertise.





# **Innovation Centre & Design Thinking Lab:**

## **Fostering a Culture of Innovation and Creativity on Campus**

### **About Incubation Initiative at CMR University Innovation Centre**

CMR University embarked on the journey of entrepreneurship and startup establishment by keeping Design Thinking at the core. CMRU has aligned its activities to the Ministry of Education, Government of India's IIC, Smart India Hackathon, nirf-Innovation (ARIIA), School Innovation Council, NISP, KAPILA, Atal Innovation Mission, Yukti, School Innovation Ambassador Training Program initiatives, activities, and events. With the help of CMRU Innovation Centre and Design Thinking Lab,

CMR University (CMRU) is strategically structured by having multidisciplinary capabilities in business, technology, economics, social, design, architecture, and legal competencies to support any idea or startup in its early stages by incubating it by incorporating design thinking and multidisciplinary dimension.

CMRU has established an Incubation centre with a physical space of 7000 Sq Ft with movable modular furniture and fixtures; LED TVs; and Flexi Boards, Pinup Boards meant to foster networking between incubatee students and entrepreneurs, and others in entrepreneurial space.

### **Main Features of Innovation Centre & Design Thinking Lab**

The Innovation Centre & Design Thinking Lab (Innovation Centre & Design Thinking Lab) at CMRU Lakeside Campus, is a dynamic and inclusive space designed to spark creativity and catalyze innovation. It is a collaborative environment intended to foster an experimental culture on campus by promoting interdisciplinary and cross-stream engagement among students. The lab has thoughtfully crafted a supportive and stimulating environment where students can collaborate, conceive, and create products, services, or experiences benefiting society and encouraging innovation and solving current and future challenges.

This helps students develop essential and new-age skills. These include empathizing, ideating, problem-solving, creativity, and communication skills. By working through the design thinking process, students learn to identify problems, generate ideas, prototype solutions, and iterate based on user feedback. They also learn how to communicate their ideas effectively both verbally and visually, which is crucial for success in any field. These learnings help in the overall growth of students and create Change-makers instead of Change-seekers.

The Innovation Centre & Design Thinking Lab is also a valuable resource addition for faculty and staff at CMRU Lakeside Campus. It provides them with access to a space where they can



experiment with new teaching methods and develop innovative approaches to research and problem-solving. The ambiance and setup of the lab is such that it also supports informal/interdisciplinary collaboration among faculty, enabling them to work together on research projects, brainstorm, and introduce new pedagogies that benefit students across the university. This lab is equipped with a range of spaces and tools to support the innovation process. Here are some of the key features:

### **Presentation Space**

The Presentation Space is the perfect place for teams to share their ideas with others. Equipped with a large screen and state-of-the-art sound system, this space has been designed to help speakers communicate their ideas effectively and engage their audience. The seating is comfortable and arranged to create an informal atmosphere, promoting interaction and discussion.



*SOM - BBA(G) - Sem II - Batch [22-25] students presenting their field research on farmers*

### **Mini Presentation Area:**

The Mini Presentation Area is a perfect setting for students to showcase their projects to a smaller audience, enabling them to receive quick feedback and refine their ideas. It is an ideal space for our students to test their concepts and prototypes in a more intimate setting and engage with their peers in a constructive and supportive environment.

### **Brainstorming Area:**

The Brainstorming Area features different sizes and shapes of whiteboards, soft boards, and writing surfaces such as glass top tables, that enable students to collaborate effectively and visually

map out their ideas. We believe that collaboration and teamwork are essential in inspiring innovation, and this area has been designed to facilitate the exchange of ideas and foster a sense of community among our students. To further enhance the brainstorming experience the place has a relaxing and inspiring atmosphere with comfortable seating and natural lighting.



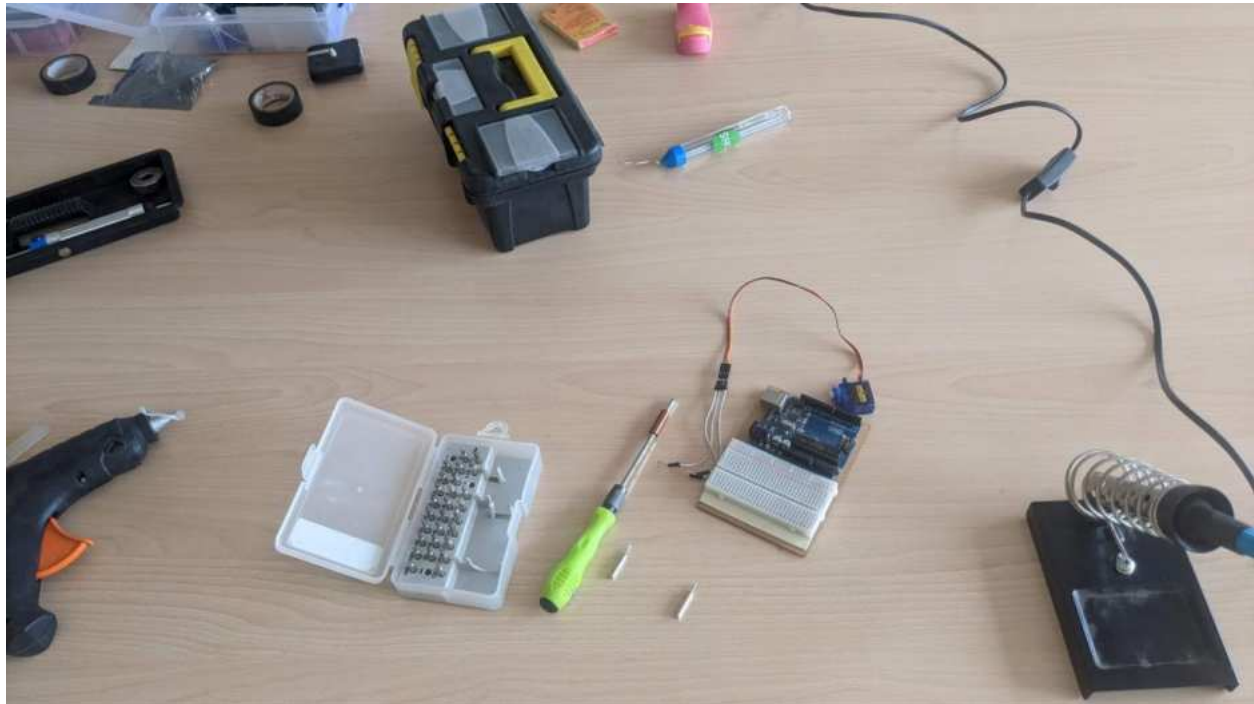
*SOM - BBA(G) - Sem II - Batch [22-25] students using the brainstorming area to discuss their projects*

### **Prototyping Space:**

The Prototyping Space is dedicated to supporting the prototyping process, providing teams with the tools and equipment they need to turn their ideas into tangible prototypes. The prototyping area will be equipped with a wide range of cutting-edge tools and equipment such as 3D printers, development boards, electronics consumables etc. The goal with this space is to provide CMRU students with access to the latest prototyping technologies, enabling them to bring their ideas to life in innovative and exciting ways.

Collaboration between students from diverse academic fields is one of the standout features of the Innovation Centre & Design Thinking Lab. Here, engineering, design, business and humanities converge towards working on real-world problems together. The resulting cross-fertilization of ideas allows for a more profound understanding of contemporary challenges facing society. Alongside this comes an emphasis on nurturing innovation through a structured process that spans ideation to prototyping then testing and finally iteration. The Innovation Centre & Design

Thinking Lab creates a secure and nurturing setting where students can nurture their ideas and fine-tune their solutions through constructive feedback from faculties, mentors and peers.



*The prototyping zone allows students to think and tinker their solutions*

Perhaps most importantly, the Innovation Centre & Design Thinking Lab at CMRU helps students to develop a mindset that is focused on creating positive change in the world. Design thinking is about more than just creating products or services; it is about understanding the needs and desires of people and using that understanding to make the world a better place. By working on real-world problems, students learn to empathize with others and develop a sense of social responsibility. They also learn to be resilient in the face of failure and to persevere in the pursuit of their goals. As the world becomes increasingly complex and interconnected, initiatives like the Innovation Centre & Design Thinking Lab are essential in preparing the next generation of leaders and innovators to tackle the challenges ahead.

## **CMRU Incubation Initiative**

CMRU incubation support includes providing technological facilities like Makerspace, 3D Printing Lab, Prototyping Lab, artisans workspace, Make with Electronics, CAD Lab; access to startup seed and growth fund through MoE's IIC Yukti initiative, NASSCOM Foundation's thingQbator, IEntru India Startup Studio, and ICAR Nivedi naavic Agri-Business Incubator; Design Thinking Lab and Innovation Centre facilities; multidisciplinary mentoring and advisory support that includes internal and external mentors; IPR and Patent related support through legal team and also, with support from Karnataka State Council for Science and Technology (KSCST) and MITSquare; activities that include talks by Startup Founders, Experts, IPR Professionals, and

law firms; and accelerator programs from NASSCOM Foundation towards supporting start-ups and early-stage companies.

## Entrepreneurship Development and Start-up Establishment Activities in CMRU

CMR University has created an institutional innovation ecosystem where in young minds are mobilized, mentored, supported, and guided to ideate, build prototypes, incubate business viable product, create Minimum Viable Product that makes sense to all stakeholders, provide ample opportunity to present their ideas to investors, get funding, and establish their startup. In this journey, NASSCOM Foundation’s thingQbator, ICAR Agri Business Incubator NaaVic, iEntra’s India Incubation Centre as well as Startup Studio, MiT Square, and The Future Founders Co extended their invaluable support. All these activities attract talented entrepreneurs and recognize and promote startups. As a result of this, in the last one-year CMRU Innovation Centre produced 450+ Ideas, won 5 National Awards and 5 students won 3rd Prize in National Competition and participated in ASEAN-CHINA-INDIA Youth Leadership Summit 2023 in Singapore which was fully funded.

### IIC (In the Lasy Few Years)

Year:	2019-20	2020-21	2021-22	2022-23
IIC Calendar Activities	1	5	2	13
MIC Activities	0	0	1	6
Celebration Activities	-	-	1	9
Self Driven Activities	0	25	12	43
Total Activities Reviewed	0	30	17	71
Total Activities Disapproved	1	27	3	11
Total Activities Approved	0	3	2	60
Yukti Submissions	-	-	1	56
I&E MoUs Signed	0	0	1	3
Total Marks	0	11.39	0	56.2
IIC Star Ratings	0	1	1	3



MoU Partners	Status	Scope
Nasscom Foundation's thingQbator	Active	Entrepreneurship Cohort-based journey for student entrepreneurship. Mentoring, replenishments, and hands-on guidance for practical experience. Goal: Create tech-social entrepreneurs within the university. Build hands-on skills in current and emerging technologies. Create local solutions for local problems. Transform job seekers into job generators. Establish links connecting innovation to users/beneficiaries.
The Future Founders Co.	Active	India Sustainability Startathon ASEAN China India Youth Leadership Summit
NaaViC	Active	Collaboration: Foster Agripreneurship in IT, Electronics, Mechatronics, and Robotics. Startup Support: Shared facility usage at agreed rates under guidelines. Capacity Building: Workshops, boot-camps, competitions for startup growth. Mentoring: Technical and business support available on request. Network Development: Establish linkages to support startups from ideation to commercialization.
MiT Square	Active	Talent Management Innovation Management Specific Training Programs Establish RAISE Center of Excellence (CoE) or Center of Innovation (CoI)
iEntra	Active	Establishing a Startup Studio: A joint collaboration between CMR University and IENTRA to establish an incubation facility at CMRU Campus.

