



# **INSTITUTIONS INNOVATION COUNCIL**

**Fr. Conceicao Rodrigues  
College of Engineering**

**Annual Report IIC 7.0**

# ANNUAL REPORT IIC 7.0

## A. About IIC Institute

### Vision

- Vision of IIC established at the Institute: “Moulding Engineers Who Can Build The Nation”
- Mission of IIC established at the Institute: To Facilitate a platform for innovative minds to transform their ideas into viable business propositions to start a business venture.

### Journey of IIC established at the Institute

- IIC-FrCRCE is established in November 2018 with objectives to create a vibrant local innovation ecosystem to develop innovative mindset and nurture the innovative ideas of technology students by providing support for start-up mechanism.

The **IIC-FrCRCE** initiated various innovation, start-up, entrepreneurship related activities such as Workshops, Boot Camps online, Seminars, Hackathons, Mini Challenges, success stories and interactions with professionals, Alumni Entrepreneurs in the institute. The main events are Idea Competition, PoC Competition, Business Model Canvas and Demo Day. IIC celebrated most of the celebration activities announced by MOE. The top three teams of Idea Competition are felicitated during the annual function with best innovation prize. The student cells organizing startup and innovation activities enthusiastically are awarded with Innovation Trophy. The IIC president and NISP coordinator have conducted session on innovation and creativity for First Year students Induction Program. Nominated Faculty of CRCE representing all departments has completed Basic Level and Advanced Level IA Training. These faculty proactively mentored students by conducting session in different domains required to build a startup.

# ANNUAL REPORT IIC 7.0

In continuation with IIC activities, our Institute has joined the Campaign of implementing National Innovation and Startup Policy (NISP) in Higher Educational Institutions (HEI) initiated by MoE Innovation Cell in June 2020. We have successfully completed the policy formulation and in the Policy implementation stage. The action plan is prepared. NISP awareness session is conducted by NISP coordinator Prof. Swati Ringe to motivate and understand the faculty and students on 6th January 2021. NISP dedicated web page is created on the college website for reference.



Year (2019-2020) - **4.5 Stars**



Year (2018-2019) - **4 Stars**



Year (2020-2021) - **4 Stars**



Year (2021-2022) - **4 Stars**



Year (2022-2023) - **3.5 Stars**



Year (2023-2024) - **3.5 Stars**

# ANNUAL REPORT IIC 7.0

## Year (2024-25) | IIC-FrCRCE Activities Snapshot



# ANNUAL REPORT IIC 7.0

## Idea Competition in 4 Phases

Idea Competition



POC Competition



Business Model Canvas



Demo Day



IIC Innovation Summit



Incubation Visit at VJTI - TBI



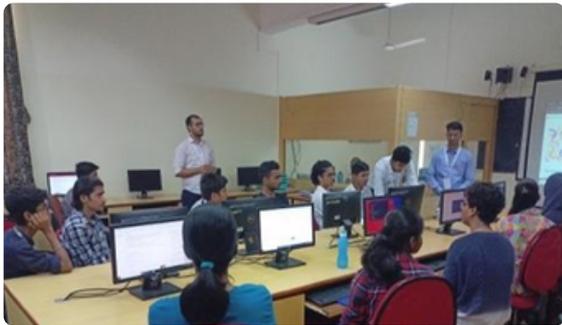
SIH Students Mentorship  
SIH Internal Round



# ANNUAL REPORT IIC 7.0

## Outreach Program in School: Tinkering Lab

### 1) Hansraj Moraji Public School



### 2) Fr. Agnel Ashram Technical School, Bandra



AI Tools and Technologies Innovations with Drone and UAV

# ANNUAL REPORT IIC 7.0

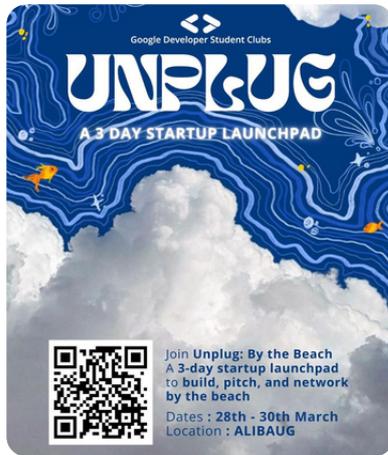
BitNBuild-International Level Hackathon on October 2024



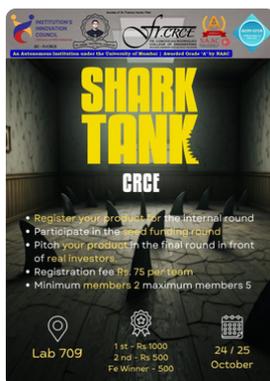
Incubation Visit at VJTI on 19 April 2024



Unplug - Startup Launchpad on March 2025



SharkTank Activity



National Entrepreneurship Day



Prakalp-Project Competition



# ANNUAL REPORT IIC 7.0

## BIT N BUILD INTERNATIONAL HACKATHON



# ANNUAL REPORT IIC 7.0

## National Collaborators

Jharkhand	Indian Institute of Technology (Indian School of Mines) Dhanbad– IIT Dhanbad
Punjab	Indian Institute of Technology Ropar– IIT Ropar × Thapar Institute of Engineering and Technology– Thapar University
Odisha	International Institute of Information Technology Bhubaneswar– IIIT BBSR × Silicon Institute of Technology– SIT
Karnataka	University Visvesvaraya College of Engineering– UVCE
Andhra Pradesh	IIIT Sri City
Kerala	National Institute of Technology Calicut– NIT C × Indian Institute of Information National Institute of Technology Calicut– NIT C × Indian Institute of Information Technology Kottayam– IIIT K × Marian College Kuttikkanam– Marian College
Tamil Nadu	Rajalakshmi Engineering College– REC
Madhya Pradesh	Acropolis Institute of Technology and Research– AITR
Uttar Pradesh	Indian Institute of Information Technology Allahabad– IIIT Allahabad
Bihar	National Institute of Technology Patna– NIT Patna

# ANNUAL REPORT IIC 7.0

## International Collaborators

Singapore	Nanyang Technological University– NTU
France	Université Grenoble Alpes– UGA
Netherlands	University of Twente– UT
Malaysia	Universiti Teknologi PETRONAS– UTP
Dubai	University of Wollongong– UOWD
Poland	Polish-Japanese Academy of Information Technology– PJAIT
Egypt	Cairo University– CU
Germany	Technical University of Munich- TUM
United Kingdom	University of Manchester– UoM
US	University of California, Davis– UC Davis

# ANNUAL REPORT IIC 7.0

## Felicitation of Innovators and Contributors of IIC - Annual Day



### BEST COUNCIL AWARD

Students' Council



### ATAL TINKERING LAB Activities

## TOP 3 BEST INNOVATIVE SOLUTION AWARDS – Idea Competition 24-25



MediSense



Net Fortress



'Smart Fluid Container' they secured the second position at IIT-Madras for AtomQuest 2024 Ultimate Technical Solutions Challenge, by Atomberg on 7Jan.

# ANNUAL REPORT IIC 7.0

## Innovation Ambassador Mentoring for Students Making IIC-FrCRCE Atmanirbhar

The collage consists of 15 individual posters for various events:

- Lean Start-up and Minimum Viable Product (Product) Business:** Speaker: SAURABH KULKARNI, 4th August, 2:30 PM, Seminar Hall.
- Workshop on Intellectual Property Rights and IP Management for Start up:** Speaker: Dr. BHUSHAN PATIL, 7th March 2024, 9:30 AM to 10:30 AM, Classroom 406.
- Entrepreneurship and Innovation as a Career Opportunity:** Speaker: PROF. GAEMA TOPRA, 23rd August 2023, 10:00 A.M. - 12:00 P.M., 3rd Floor, 308.
- Perfect Pitch Deck Presentation:** Speaker: PROF. VAIBHAV GOBOLE, 23rd August 2023, 10:00 A.M. - 12:00 P.M., 3rd Floor, 308.
- Artificial Intelligence: Get Started with Your Journey!** Speaker: MRS. ASHWINI PANGARE, 18th March 2024, 02:00 PM - 04:00 PM, Online Session.
- Phases of Startup:** Speaker: PROF. ANKITA AMBRIE, 18th March 2024, 02:00 PM - 04:00 PM, Online Session.
- Achieving Value Proposition Fit and Market Fit:** Speaker: PROF. SWATI RINGE, 18th March 2024, 12:15 PM, 1st Floor.
- Startup Ecosystem:** Speaker: PROF. HEENA PENDHAR, 18th March 2024, 12:15 PM, 1st Floor, Class 808.
- Design Validation Using Double Diamond Approach:** Speaker: Dr. Hemant Khanolkar, Senior Faculty at Fr.CRCE.
- Entrepreneurship Skills, Attributes and Behaviour:** Speaker: PROF. SABINA SHAIKH, 27th Feb 2024, 12 PM, DEPT. AI&DS.
- How to Plan for Start up with Legal & Ethical Steps:** Speaker: PROF. SWATI RINGE, 26 March 2024, 2:30 PM - 3:30 PM, Venue - 9127.
- Incubation Opportunities for Early Stage Entrepreneurs:** Speaker: Prachi Potli, 01st August 2023 (Tuesday), 01:00 PM to 1:00 PM, Room No - 702.
- Feasibility of the Idea:** Speaker: KUSHAL PATEL (VCP), 19-01-2024, 12:00 PM to 1:00 PM, Room No - 702.

# ANNUAL REPORT IIC 7.0

## Business Model Canvas Mentoring Session By Kranti Waghle (IIC Convener)



Ministry of Education's  
INNOVATION CELL  
(GOVERNMENT OF INDIA)



NAAC  
Rajeev Gandhi College  
of Management Studies



INSTITUTE'S  
INNOVATION  
COUNCIL  
(Ministry of HRD Initiative)

**Rajeev Gandhi College of Management Studies**  
*Approved to AICTE, DTE (Code-MB 3159), Affiliated to University of Mumbai,  
Government of Maharashtra*

**Institute Innovation Council (IIC)**  
in Collaboration with  
**RGCMS Library**  
Presents  
**WORKSHOP**  
Session  
on  
**Business Model Canvas**  
**21st July 2025, Monday**  
**3:00 pm to 4:00 pm**



Eminent Speaker  
**Ms. Kranti Waghle**  
IIC, Convener  
Fr. Conceicao Rodrigues College of  
Engineering

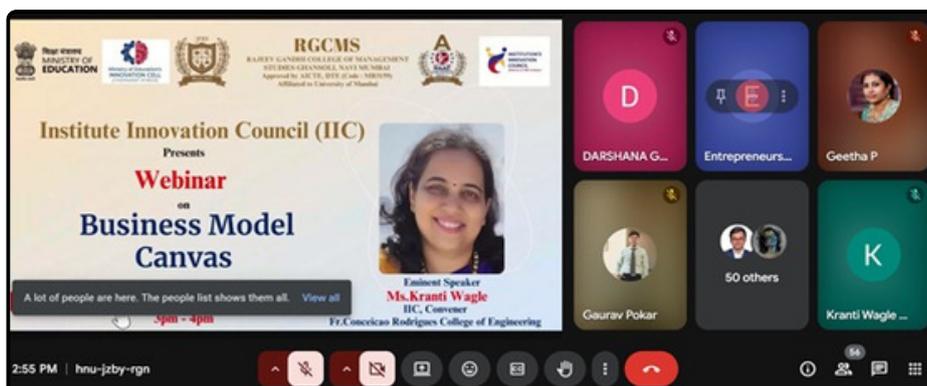


Scan QR code  
for Registration

**Ms. Chahat Hargunani**  
IIC Coordinator

**Dr. Dinesh Gabhane**  
Director

[www.rgcms.edu.in](http://www.rgcms.edu.in)  
CIDCO, Plot No 01, Sector 8, Ghansoli, Navi Mumbai



The screenshot shows a Zoom meeting in progress. The main window displays the webinar title: "Institute Innovation Council (IIC) Presents Webinar on Business Model Canvas". The speaker is identified as Ms. Kranti Waghle, IIC Convener, from Fr. Conceicao Rodrigues College of Engineering. The interface includes a grid of participant tiles: Darshana G., Entrepreneurs..., Geetha P., Gaurav Pokar, 50 others, and Kranti Waghle. The bottom status bar shows the time as 2:55 PM and the meeting ID as hnu-jzby-rgn.

# ANNUAL REPORT IIC 7.0

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

The Institute has four departments: Mechanical, Electronics and Computer Science (ECS), Computer Engineering and Computer Science & Engineering. **Institution's Innovation Council Composition (Academic Year – 24-25):**

President	Principal	1	Dr. Surendra Singh Rathod (ECS)
Vice President	Assistant Professor	1	Prof. Ashwini Pansare (Comps)
Convener	Assistant Professor	1	Prof. Kranti Wagle (Comps)
NISP Coordinator	Assistant Professor	1	Dr. Swapnali Makdey (AI&DS)
Innovation Activity Coordinator	Assistant Professor	2	Prof. Heena Pendhari Prof. Joshua Michael
Startup Activity Coordinator	Assistant Professor	1	Prof. Monali Shetty
Internship Activity Coordinator	Assistant Professor	4	Prof. Prachi Patil Prof. Jayen Modi Prof. Saurabh Kulkarni Prof. S. Kargaonkar
IPR Activity Coordinator	Professor and Dean R&D	2	Dr. Ketaki Joshi(Mech), Prof. Garima Tripathi (AI&DS)

Social Media Coordinator	Assistant Professor	1	Prof. Jayen Modi (ECS)
ARIIA Coordinator	Professor	1	Dr. DV Bhoir (ECS)
NIRF Coordinator	Assistant Professor	1	Prof. Supriya Kamoji (Comps)
E-Cell in-charge	Assistant Professor	1	Prof. Prajkta Bhangale (ECS)
Member-Collaborations	Assistant Professor	4	Prof. Kalpana Deourukhkar(Comp) Prof. Prachi Dalvi(Comps) Prof. Dipali Koshti (ECS) Prof. Dipali Bhise(Mech.)
Tinkering Lab	Assistant Professor	2	Prof. Saurabh Kulkarni (AI&DS), Prof. V. Godbole (ECS)
Network Enabler	Training and Placement	1	Mr. Mahesh Sharma
Innovation Coordinator (Student)	Student Coordinator	1	Joyvin Mendonca (Comps)
Startup Coordinator (Student)	Student Coordinator	1	Bhushan (ECS)
IPR Coordinator	Student Coordinator	1	Varshil Shah (Comps)
Social Media Coordinator	Student Coordinator	1	Romona Lobo(AI&DS)
Internship Coordinator	Student Coordinator	1	Mahek Gupta (Comps)

Representative from nearby Incubation Centre	Member	1	Dr. Sushil Thale, Fr. CRIT Vashi
Representatives of SIDBI / NABARD / Lead Bank / Investor	Member	1	Sr. Manager, Union Bank, Hill Road Bandra-west
Technical Experts from nearby Industry	Member	1	Mr.Govind Gaundalkar, Microdevice Tech
Alumni Entrepreneurs	Member	1	Mr. Ayush Jain, UthopiaTech
Students from the host institution FROM COMPUTER, AI&DS, ELECTRONICS AND COMPUTER SCIENCE (ECS), MECHANICAL DEPARTMENTS	Council in-Charge Student From all departments	21	Reuben Soares, Mahek Gupta, Salman Khan, Raina Joyce, Allan Monis, Vedant Goraksha, Sharian Dabre, Mrugank Worlikar, Mrunali Tamhankar, Ankit Maity, Pratham Prajapati, Preetham Fernandes, Alvin Dsouza, Saiguru, Steve Anthony, Lincy Dcosta, Soham Pednekar, Piyush Jogake, Ishaan Metteries, Susan Fernandes, Shaun Mendes

# ANNUAL REPORT IIC 7.0

## B. A brief mention of Key Functionaries at the IIC Institute

President	Main Point of Contact with MHRD Innovation Cell (MIC). To constitute the IIC council, Plan Quarterly Council Meeting To ensure the effective implementation of IIC activities.
Vice President	To ensure the effective implementation of IIC activities.
Convenor	To work in coordination with IIC president and To provide help for smooth conduction of activities.
Innovation activity coordinator	To promote innovation related activities in the institute
Internship coordinator	To arrange student internships in start-ups.

IPR activity coordinator	To promote IPR awareness and conduct related activities.
Social Media Coordinator	To create and manage IIC page/account on Facebook, Twitter and YouTube and Instagram
ARIIA Coordinator	Coordinate for ARIIA related activities
NIRF Coordinator	Coordinator for NIRF related activities

# ANNUAL REPORT IIC 7.0

## C. Portfolio/Graphical/Tabular representation of Resource Strength (Human capital and Physical capital) of the IIC institution

Total No. of IIC Members	27
Total No. of Innovation Ambassadors	22 (basic level) + 12 (Advanced level) = 34
Total No. of faculty Mentors From Portal	11
Pre-Incubation Units, If any	Yes, 4
Incubation Units, If any	Work is in Progress
IP Facilitation Unit, If any	Yes

# ANNUAL REPORT IIC 7.0

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

- Dedicated Pre-incubation Unit in each Department.
- Institute is providing financial assistance to Staff and faculties in its best possible way.
- Professional Consulting Support is provided (Naman Angels,4 Professor in Practice are employed )
- Start-up Cell, Entrepreneurship cell, IPR Cell is actively engaged in the promotion of Innovation and Entrepreneurship activities in the campus.
- Dedicated IPR centre is available in the Campus. Project space and Internet facility is provided.
- **Following MOUs are signed for industry academia collaboration**



MOU:

[CLICK HERE](#) 



IDS Blockchain

MOU between SPCE and FRCRCE:

[CLICK HERE](#) 

# ANNUAL REPORT IIC 7.0

## CEAT LTD. CONSULTANCY



MOU : [CLICK HERE](#) ✨

## MEDICAL RESEARCH MOU



MOU 1 : [CLICK HERE](#) ✨

MOU 2 : [CLICK HERE](#) ✨

# ANNUAL REPORT IIC 7.0

Signed MoU with **Board of Apprenticeship Training** for AEDP (Apprenticeship Embedded Degree Program). Director Mr. Jumle, Deputy Director and other assistant directors from BoAT were present.



MOU : [CLICK HERE](#) 

MOU with VJTI-tbi (Student team pre-incubated at VJTI-tbi)



# ANNUAL REPORT IIC 7.0

## IBM

The Department of Computer Engineering, in collaboration with IBM SkillsBuild and Edunet Foundation, organized a Hands-on Workshop on Generative AI and Retrieval Augmented Generation (RAG) on 8th August 2025 at Samvad Hall. The session was conducted for Second Year (SE) and Third Year (TE) Computer Engineering students to provide practical exposure to these emerging AI technologies.



MOU : [CLICK HERE](#) 

# ANNUAL REPORT IIC 7.0

## Collaboration with the Following Industry & Startups

### MOU WITH ICAR-CENTRAL INSTITUTE OF FISHERIES EDUCATION MUMBAI

#### Memorandum of Understanding (MOU)

Between

**Fr. Conceicao Rodrigues College of Engineering, Institute Innovation Council**

Fr. Agnel Ashram, Bandra West, Bandstand, Mumbai, 400050

And

**ICAR-Central Institute of Fisheries Education (ICAR-CIFE) Mumbai**

**Purpose:** This Memorandum of Understanding (MOU) establishes a collaborative partnership between [Name of the Engineering College] and ICAR-Central Institute of Fisheries Education (ICAR-CIFE), Mumbai, for the purpose of engaging engineering students and ICAR-CIFE students in joint research projects. The collaboration aims to leverage the expertise and resources of both institutions in various domains, including Disease Diagnostics with Image Acquisition, Environmental Impact on Fish, Database Development for ICAR Data, Biosensor Projects, and other relevant research areas.



# ANNUAL REPORT IIC 7.0

## MOU WITH FIRE AND SAFETY SECURITY ASSOCIATION OF INDIA



FR. CONCEICAO RODRIGUES COLLEGE OF ENGINEERING  
Fr. Agnel Ashram, Bandstand, Bandra (W), Mumbai - 400 050



### FSAI Collaboration

#### FSAI - Fire and Security Association of India

The Fire and Security Association of India (FSAI) is an organization dedicated to promoting and enhancing safety measures across various sectors in India. It focuses on recognizing and encouraging the adoption of fire and security practices to safeguard lives and property. FSAI conducts initiatives like competitions and audits to identify and reward exemplary safety practices, such as identifying the safest Ganesh Mandals during the Ganesh Chaturthi festival. Their mission is to advance safety standards and foster a culture of security awareness in the community.



# ANNUAL REPORT IIC 7.0

## MOU WITH MUMBAI UNIVERSITY FOR ESTABLISHMENT OF STARTUP CLINIC IN CRCE CAMPUS

<p><b>Prin.(Dr.) Sachin S. Laddha</b> Ph.D., M.Pharm., FACS, FORS <b>Director</b> INNOVATION, INCUBATION &amp; LINKAGES Green Technology Building, Vidyanagari Campus, University of Mumbai, Santacruz (E), Mumbai 400 098 email : director.iil@mu.ac.in Phone (Off) : +91 9320208078</p>	<p>University of Mumbai</p>  <p>मुंबई विद्यापीठ</p> <p>RE-ACCREDITED A++ GRADE (CGPA 3.85) BY NAAC</p>	<p>प्राचार्य (डॉ) सचिन श्याम लद्धा बी.एच.डी., एच.एच.ए., एफ.ए.सी.ए., एफ.ओ.एस.ए. <b>संचालक</b> नवोपक्रम, नवसंशोधन व साहचर्य मंडळ, हरिश तंत्रज्ञान इमारत, विद्यानगरी परिसर, सांताक्रुझ (पू.), मुंबई - ४०० ०९८. ईमेल : director.iil@mu.ac.in फोनव्यवस्था (कार्यालय) : +९१ ९३२०२०८०७८</p>
<p><b>No.II&amp;L/ICD/2024-25/48</b></p>		<p><b>Date:23<sup>rd</sup> July, 2024</b></p>
<p><b>To,</b> <b>Dr. Surendra Singh Rathod</b> Fr. Conceicao Rodrigues College of Engineering, Fr. Agnel Ashram, Bandstand, Near Taj Land, Bandra(w), Mumbai</p>		
<p><b>Dear Dr. Surendra Singh Rathod,</b></p> <p>I am pleased to inform you that your proposal for the establishment of a Startup Clinic powered by MU IDEAS Foundation Incubation Center, Mumbai at Fr. Conceicao Rodrigues College of Engineering has been approved. We are excited about the potential this initiative has to foster innovation, entrepreneurship, and practical business skills among our students.</p> <p>The Startup Clinic will serve as a resource center where students as well as budding Startups can receive guidance on developing business ideas, creating business plans, and navigating the complexities of starting and running a business. This initiative aligns with our commitment to providing students with hands-on learning opportunities and preparing them for successful careers in a dynamic economic landscape.</p>		

## MOU WITH AWS

./6/22, 10:48 AM SPOC for Fr CRCE - monali\_shetty@fragnel.edu.in - Fr. Conceicao Rodrigues College of Engineering Mail

Compose

Inbox 3,037

Starred

Snoozed

Important

Chats

Sent

Drafts 261

All Mail

Spam 4

Trash

Categories

Social 118

Updates 609

Forums 699

AWS

68 of many

**Mehra, Lokesh** <lokemehra@amazon.com>  
to Akanksha, me Tue, Aug 2, 7:12 AM

Dear Prof Monali,

You are now the CPOC of Fr Conceicao Rodrigues College of Engineering, Mumbai. Kindly follow the steps outlined b- As a next step you need to complete the following steps

1. Accept the Terms and Conditions as the Central Point of Contact with the login credentials that you would have received in your email (mail would have been received at < monali\_shetty@fragnel.edu.in>). If no mail has b received, kindly click on [www.awsacademy.com/AcademyHome](http://www.awsacademy.com/AcademyHome) and fill in your user ID which is [monali\\_shetty@fragnel.edu.in](mailto:monali_shetty@fragnel.edu.in) in [awsacademy](http://awsacademy) and click on Forgot your Password
2. Appoint educators that will teach the course and have them accept the Program guide. Please choose Englil the preferred language.
3. Ask your educators to complete the mandatory online module that has been designated to them
4. Run one complete batch of students of minimum 20 students
5. Post this your academy gets listed as a member on the AWS Global Web site <https://aws.amazon.com/training/awsacademy/member-list/>

## STUDENTS CERTIFICATE COMPLETING AWS CERTIFICATION

**Basilica Anthony**

Certificate of Completion for  
AWS Academy Graduate - AWS Academy Cloud Foundations

Course hours completed  
20 hours

Issued on  
04/04/2024

Digital badge  
<https://www.credly.com/go/cgpr9WC>

**Ivan Dsouza**

Certificate of Completion for  
AWS Academy Graduate - AWS Academy Cloud Developing

Course hours completed  
40 hours

Issued on  
03/23/2024

Digital badge  
<https://www.credly.com/go/K3Q4DM4>

# ANNUAL REPORT IIC 7.0

Collaboration with Professor Of Practice(Employed as global head of Technology and innovation hub, Senior vice President Jio)

YT Video Link :

[CLICK HERE](#) 

Collaboration with Professor Of Practice  
(4 Industry Persons Employed)

*Ref: CRCE / 2024 / 200* *Date: June 3, 2024*

**Mr. Aniket Mhala**  
Global Head of Technology and Innovation Hub  
Oracle (OFSS)  
Mumbai

**Sub.: Appointment**

Dear Mr. Aniket Mhala,

With reference to your application for the post of 'Professor-of-Practice' and the subsequent interview you had with us on 27<sup>th</sup> April 2024, We are pleased to inform you that you have been selected for appointment as ' PROFESSOR-OF-PRACTICE ' in the department of Computer Engineering on Hourly basis with effect from 24<sup>th</sup> June 2024 to 31<sup>st</sup> May 2025 on a honorarium of Rs 6,000/- (Rupees Six Thousand Only) per day which includes Travelling Allowance

You are required to report for minimum 4 hours per day which will be mutually agreed upon.

Description of your role and responsibilities are as under :

1. Teaching of course as per the revised curriculum under autonomy
2. Provide mentorship to students for projects, hackathons and career prospects.
3. Provide strategic leadership in implementation of innovation, entrepreneurship and incubation activities at the college.
4. Explore the possibilities of collaborations with other national / international institutes and industries of repute to set-up 'Centres of Excellence' and 'Innovation Labs'.
5. Provide suggestion for curriculum improvement.

Your timings will generally be from 9.00 am to 4.00 pm.

# ANNUAL REPORT IIC 7.0

## Minutes of the Meeting

**Date:** 03-08-2024

**Time:** 12:00 pm – 2:00 pm

**Location:** Fr. CRCE Bandra

### Attendees:

- **Evaluators:**
  - Mr. Aniket Mhala (Senior Vice President Head of Innovation Centre Jio Platform)
  - Mr. Mayur Aggarwal (Vice President of Mappls Company)
  - Dr. Surendra Singh Rathod (Principal of Fr. CRCE Bandra)
- **Professors:**
  - Mrs. Kranti Wagle
  - Mrs. Ashwini Pansare
- **GDA Members:**
  - Mr. Santo Sunny (CEO of GDA)
  - Mr. Desmond Antony (CTO of GDA)
  - Mr. Suraj Shinde (CMO of GDA)

### Members Absent:

- Mr. Meet Satra
- Miss. Mohini

---

### Agenda:

1. Evaluation and review of the product of GDA
2. Key Evaluation Points

---

### Key Points Discussed:

1. **Introduction to the Educational Game**
  - Overview of the game.
  - Objective: To pitch the game to schools.
2. **Happy Index**
  - Measure the impact of the game on student happiness.
3. **Result Improvement**
  - Assess how the game improves student results.

# ANNUAL REPORT IIC 7.0

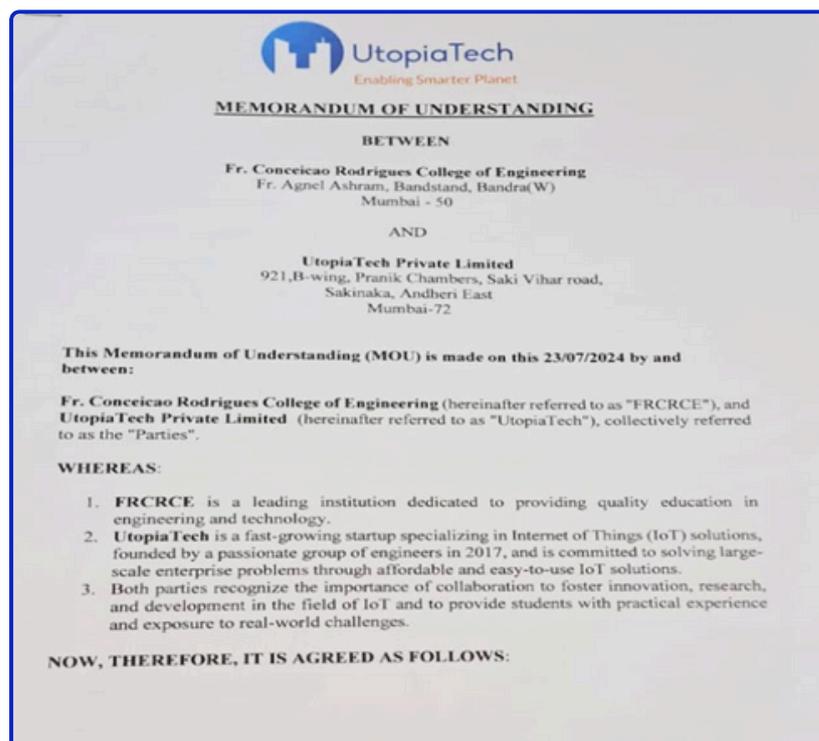
## MOU SIGNED WITH UTOPIA TECH. PVT LTD

UtopiaTech is a fast growing startup in the space of Internet of Things(IoT). Founded by passionate group of engineers in the year 2017, it has now grown into leading IoT solution provider. It firmly believes that connected infrastructure can reduce energy wastage and solve complex operational challenges.

The team at UtopiaTech is extremely passionate about the IoT technology and it envisions solving large scale enterprise problems through affordable and easy to use solutions. More than 100 enterprises are seamlessly managing infrastructure through its pioneering solutions.

MENTORING BY THE CO-FOUNDER OF UTOPIA TECH Mr. AYUSH JAIN ,INVITED AS JUDGE AT SIH 2024 INTERNAL HACKATHON

YT Video Link: [CLICK HERE](#) 



# ANNUAL REPORT IIC 7.0

## MOU SIGNED WITH FUTURE LOGIC

Business intelligence company focussed on supply chain operations. We using our knowhow in system integrations create data warehouses and pipelines into relevant enterprise systems. This data warehouse becomes the key in aligning business objectives with dashboards



**MEMORANDUM OF UNDERSTANDING (MOU)**  
**BETWEEN**  
**Fr. Conceicao Rodrigues College of Engineering**  
(Hereinafter referred to as "FR.CRCE")  
Fr. Agnel Ashram, Bandstand, Bandra(W)  
Mumbai 50

**AND**  
**Future Logic Company**  
(Hereinafter referred to as "Future Logic")  
14B Ashirwad Chs, Subhash Nagar, Lower Parel East,  
Mumbai 400013

**1. Purpose**  
The purpose of this Memorandum of Understanding (MOU) is to establish a framework of collaboration between FR.CRCE and Future Logic to promote academic, research, and professional development activities that will mutually benefit both parties.

**2. Areas of Collaboration**  
FRCRCE and Future Logic agree to collaborate in the following areas:

- **Internship Programs:** Facilitate internship opportunities for FRCRCE students at Future Logic to gain industry experience.
- **Workshops and Seminars:** Jointly organize workshops, seminars, and training sessions on emerging technologies and industry practices.
- **Research and Development:** Collaborate on research projects that align with the interests of both parties, particularly in areas of technology, innovation, and engineering.

**3. Roles and Responsibilities**

- **FR.CRCE:**
  - Identify students eligible for internships and coordinate in their internship process with Future Logic.
  - Provide facilities for conducting workshops, seminars, and other collaborative events.
  - Support research projects by providing academic resources and guidance.
- **Future Logic:**
  - Offer internship positions and mentorship to selected FRCRCE students.
  - Share expertise by participating in workshops, seminars, and other academic activities at FR. CRCE.

Future Logic Systems Private Limited  
CIN U72900MH2022PTC389553  
14B Ashirwad Chs, Subhash Nagar, Lower Parel East, Mumbai 400013  
[gcp@futurelogic.io](mailto:gcp@futurelogic.io), 022- 6507 5102

**FUTURE LOGIC SYSTEMS PVT. LTD.**  
14, Floor-2, Plot-9, B Wing, Ashirwad CHS,  
Pandurang B Bagve Marg, Subhash Nagar,  
Chinchpokli (W), Jacob Circle, Mumbai-400011  
Tel:-022-49727952

**FUTURE LOGIC SYSTEMS PVT. LTD.**  
Office No. 47, 67B, Gopal Marasion,  
Gurunank Road, Bandra West,  
Mumbai 400050, Maharashtra  
Tel:-022-49727952

# ANNUAL REPORT IIC 7.0

IIC-FrCRCE organised **INNOVATORS SUMMIT** on 21st August 2024

**IIC YT Video**  
**Link:**

**CLICK HERE**



**IIC INNOVATORS SUMMIT**

 Mr. Umesh Rathod Manager IP & Technology Transfer Innovation Center	 Mr. Anish Maheshwari Founder Vture Investment Affairs	 Mr. Anil Rath Co-Founder - Vture Investment Affairs Pvt. Ltd.	 Mr. Swapnil Chandwade Senior Officer IPR at Marico India Limited
 Mr. Nikhil Gupta Chief Executive Officer and Manager Novel Catalysts Pvt. Ltd.	 Dr. Surendra Singh Rathod IIC President FR CRCE	 Prof. Swati Ringe IIC NSIP Co-ordinator FR CRCE	

SEMINAR HALL 108  
21ST AUGUST, 2024 @ 1.30PM

अखिल भारतीय तकनीकी शिक्षा परिषद  
**ALL INDIA COUNCIL FOR TECHNICAL EDUCATION**  
(A STATUTORY BODY OF THE GOVT. OF INDIA) (भारत सरकार का एक विधिक संस्थान)

**REGIONAL COORDINATION CENTRE, MUMBAI**  
क्षेत्रीय समन्वय केंद्र, मुंबई  
Innovation Centre - Western Region  
इंडोवेचन सेंटर - पश्चिमी क्षेत्र

2<sup>nd</sup> Floor, Industrial Research Building,  
Indian Institute of Management  
(IIM) Mumbai Campus,  
Vihar Lake,  
Mumbai-400087  
E-mail: [WTO@aicte-india.org](mailto:WTO@aicte-india.org)

Dear IIC team,

I hope this message finds you well. On behalf of the AICTE Innovation Center, I would like to extend our deepest gratitude to you & your esteemed institution i.e. Fr. Conceicao Rodrigues College of Engineering for organizing the IIC Innovators Summit on August 21<sup>st</sup>, 2024.

The event was an outstanding success, and your team's dedication and meticulous planning were evident in every detail. The opportunity to connect with other innovation enthusiasts and industry leaders was immensely beneficial. It fostered a collaborative spirit and provided a platform for sharing ideas and best practices that will undoubtedly contribute to the growth and success of our initiatives.

A special mention to the President – Prof. Dr. Surendra Singh Rathod, Vice-President – Prof. Dr. Ashwini Pansare & Convener – Prof. Dr. Kranti Wagle of IIC for seamlessly executing the event with all anticipated deliverables.

Thank you once again for your hard work and for creating such a memorable and impactful event. We look forward to collaborating with you on future initiatives.

Warm regards,

**Umesh Rathod**  
Innovation Manager (IP & Technology Transfer)  
Innovation Center, Western Region

**CERTIFICATE**  
OF PARTICIPATION

This certificate is proudly awarded to

*Aaron Fernandes*

This is to certify that Aaron Fernandes has actively participated in the IIC Innovator's Summit 2024 organized by Fr. Conceicao Rodrigues College of Engineering, Bandra, Mumbai on 21st August 2024.

 Dr. Surendra Singh Rathod IIC President	 Mr. Umesh Rathod Innovation Manager (IP & Technology Transfer) Innovation Center (AICTE - MOE)
--	--

# ANNUAL REPORT IIC 7.0

## Innovation Ambassadors(2024-2025)



IIC ID: IC201811040

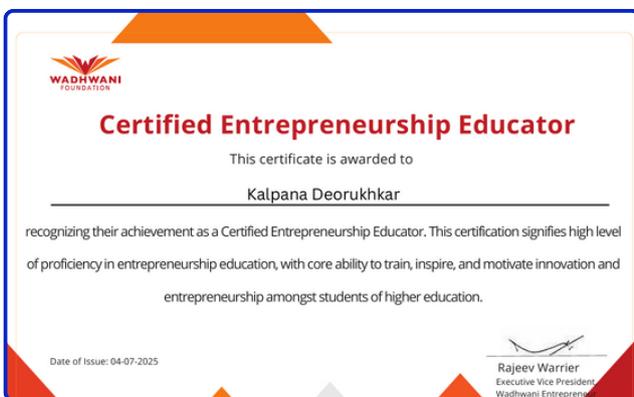
# ANNUAL REPORT IIC 7.0

## Innovation Ambassadors



# ANNUAL REPORT IIC 7.0

## Wadhvani Foundations : Certified Entrepreneurship Educator



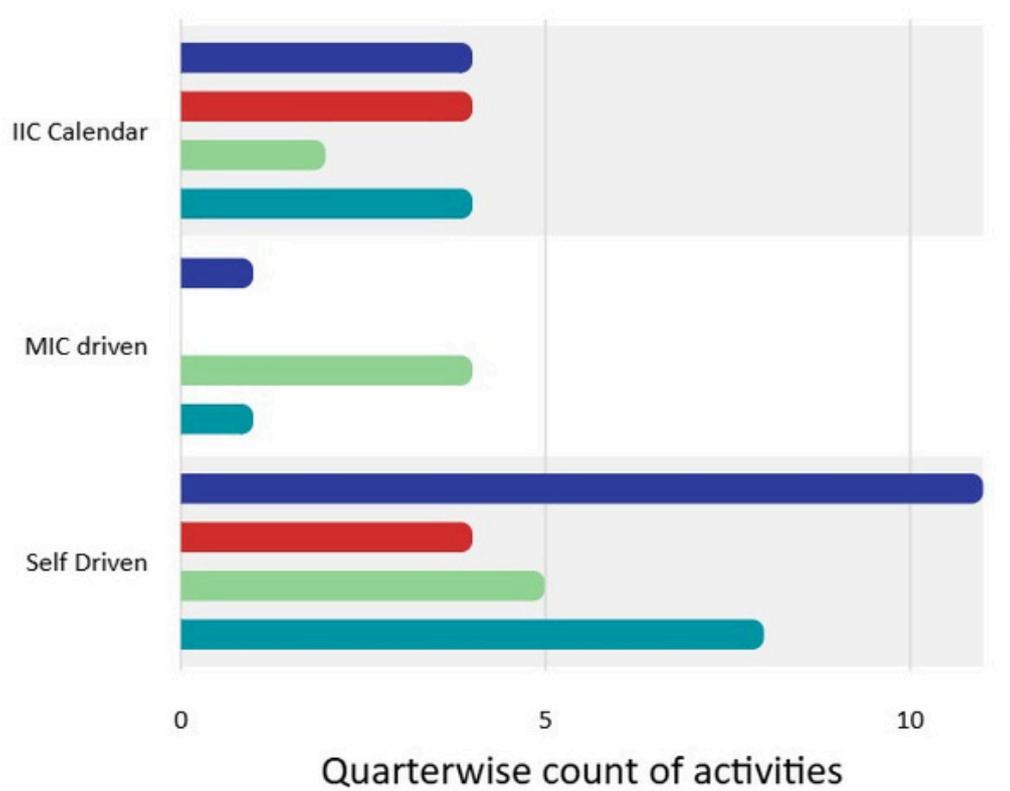
# ANNUAL REPORT IIC 7.0

## E. Highlight Achievements

(Narrative/Graphical/Tabular Representation)

Sr.No.	Title	Number
1	Number and Different types of I&E and IPR activities Conducted	62
2	No. of student's & faculty ideas generated	5 shortlisted 114+ ideas uploaded on YUKTI
3	No. of student's & faculty Innovation /prototypes developed	12
4	No. of IPs generated, published and granted	23
5	No. of Student & Faculty Start-ups/Ventures established.	03(TRL-9)
6	Amount spent on promotion and awareness generation on Innovation Entrepreneurship in the campus	1,00,000/

7	Amount grant or fund supported to student & Faculty lead Innovations, start-ups and IPR	70000/
8	No. of Technology Transfer and Commercialization happened	Nil



# ANNUAL REPORT IIC 7.0

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



**Technovation 2025** – IEEE Bombay (State-Level Project Competition) Rounds & Results:

- Divisional Round (Mumbai Division): Secured 2nd place, qualified for state-level finals.
- Finale (Pandharpur, Maharashtra): Competed against top divisional teams across the state and achieved 1st place, winning a cash prize of ₹15,000.



# ANNUAL REPORT IIC 7.0

**TechnoPhillia 2025** – MIT Pune & IEEE (National-Level Project/Poster Competition)

□ Achieved 3rd place at a prestigious national-level competition featuring top projects across India.



# ANNUAL REPORT IIC 7.0

**Team Magnetix** comprising of Krishna Soni, Aarush Wasnik & Mugdha Zope represented Fr.CRCE at **Indian Institute of Technology Madras (IITM) for AtomQuest 2024** Ultimate Technical Solutions Challenge, by Atomberg on 7Jan. For their project idea 'Smart Fluid Container' they secured the **second position** under the 'problem statement' category & were ranked overall **12 out of 15,000+** participating teams all over the country.



# ANNUAL REPORT IIC 7.0

## PARTICIPATION IN AVISHKAR RESEARCH CONVENTION - MUMBAI UNIVERSITY



# ANNUAL REPORT IIC 7.0

**Team Trixis** energy consisting of TE Computer B students Neel Khot, Prakash Biswas, Rahel Pereira, Susan Fernandes and Mentor Prof. Ashwini Pansare was among the 300 teams shortlisted out of 3200 teams nationwide to pitch their idea in front of investors at **MIT World Peace University Pune in Udyomatsav 2025**, an initiative by AICTE in collaboration with MOE to celebrate National Startup Day.



**Strategy Storm 2025** - A Global Business Case Study Competition was organised by Consulting & Analytics Club of Indian Institute of Technology Guwahati from 24 - 26 January 2025. Out of thousands of participants pan-India, the top 20 teams were invited to IIT Guwahati for grand finale.

One of them was Fr. CRCE represented by TE ECS students Bhushan Naik Tanish Khot and Bliss Machado. They competed with teams from top IITs, **IIMs, BITS Pilani** & were declared winners. They secured **1st prize of ₹50,000** in cash.



# ANNUAL REPORT IIC 7.0

## IIT INTERSHIPS

**TWO STUDENTS AFTER PARTICIPATION IN SIH 2024 FINALS, GOT INTERNSHIP OFFERS FROM NTRO , IIT-Mumbai**

### 1) David Porathur



सत्यमेव जयते

भारत सरकार  
Government of India  
राष्ट्रीय महत्वपूर्ण सूचना अवसंरचना संरक्षण केन्द्र  
National Critical Information Infrastructure Protection Centre  
(A Unit of NTRO)



XXX11/05/Training/Internship (PC-1) -96-13

Dear David Porathur,

We are pleased to offer you an internship at NCIIPC, a unit of NTRO. Your internship shall commence on 01/05/2025 at 0900 hrs. The terms and conditions of your internship with the NCIIPC are set forth below.

1. We are offering you 3 months unpaid internship as online-mode and 3 months paid internship as offline-mode at NCIIPC, New Delhi Office.  
Offline-Mode (in-person) : May 2025 to July 2025 (03 months)  
Online-Mode : August 2025 to October 2025 (03 months)
2. During the online internship period you should be willing to participate in status update meetings.
3. The internship certificate will be subject to satisfactory performance given by you during the online period.
4. The certificate of internship will be given for 6 months if you complete your internship as mentioned above, or as per your actual duration (minimum three months as offline-mode in-person) with NCIIPC.
5. Subject to your acceptance of the terms and conditions contained herein, your project and responsibilities during the Term will be determined by the supervisor assigned to you for the duration of the internship.
6. You are eligible for a stipend of INR 30,000/- per month (all inclusive) for the offline-mode only during the Term which shall be paid monthly conditional to satisfactory performance and attendance report for the month. However, you will have to make your own accommodation and travel arrangements.
7. Please be sure to bring required documents (as per Annexure-1) with you on your first day to complete the joining formalities.
8. You will have to sign a confidentiality agreement with NTRO before you commence your internship.
9. The internship cannot be construed as an employment or an offer of employment with NTRO.

This is the full and final extent of the internship offer. Any previous discussions about the position are null and void. If you wish to request any changes to this agreement, you may do so in writing for us to consider. Please confirm your acceptance of the terms of this offer by 20/04/2025 failing which, we have the right to cancel the internship. We look forward to having you on our team! If you have any queries, please feel free to reach out to us.

Sincerely,

Director, NCIIPC

# ANNUAL REPORT IIC 7.0

## 2) Venessa Rodrigues



भारत सरकार  
Government of India  
राष्ट्रीय महत्वपूर्ण सूचना अवसंरचना संरक्षण केन्द्र  
National Critical Information Infrastructure Protection Centre  
(A Unit of NTRO)



XXXII/05/Training/Internship(PC-1)-96-20

Dear Vanessa Rodrigues,

We are pleased to offer you an internship at NCIIPC, a unit of NTRO. Your internship shall commence on 01/05/2025 at 0900 hrs. The terms and conditions of your internship with the NCIIPC are set forth below.

1. We are offering you 3 months unpaid internship as online-mode and 3 months paid internship as offline-mode at NCIIPC, New Delhi Office.  
Offline-Mode (in-person) : May 2025 to July 2025 (03 months)  
Online-Mode : August 2025 to October 2025 (03 months)
2. During the online internship period you should be willing to participate in status update meetings.
3. The internship certificate will be subject to satisfactory performance given by you during the online period.
4. The certificate of internship will be given for 6 months if you complete your internship as mentioned above, or as per your actual duration (minimum three months as offline-mode in-person) with NCIIPC.
5. Subject to your acceptance of the terms and conditions contained herein, your project and responsibilities during the Term will be determined by the supervisor assigned to you for the duration of the internship.
6. You are eligible for a stipend of INR 30,000/- per month (all inclusive) for the offline-mode only during the Term which shall be paid monthly conditional to satisfactory performance and attendance report for the month. However, you will have to make your own accommodation and travel arrangements.
7. Please be sure to bring required documents (as per Annexure-1) with you on your first day to complete the joining formalities.
8. You will have to sign a confidentiality agreement with NTRO before you commence your internship.
9. The internship cannot be construed as an employment or an offer of employment with NTRO.

This is the full and final extent of the internship offer. Any previous discussions about the position are null and void. If you wish to request any changes to this agreement, you may do so in writing for us to consider. Please confirm your acceptance of the terms of this offer by 20/04/2025 failing which, we have the right to cancel the internship. We look forward to having you on our team! If you have any queries, please feel free to reach out to us.

Sincerely,

Director, NCIIPC

# ANNUAL REPORT IIC 7.0



# ANNUAL REPORT IIC 7.0

**Team Abadha : AIR 73 at BAJA SAEINDIA 2025  
held in Narsapur**



## Team ABADHA CRCE

### Achievements: (A.Y. 2024 – 25)

- Baja SAE India
- Phase 1

### Preliminary round: AIR 80

- Phase 2

### Design presentation: AIR 24

### Sustainability Event: AIR 32

### Virtual Dynamic Event: AIR 50

### Sales Presentation: AIR 56

### Cost Presentation: AIR 83

- Phase 3

### Overall Scores: AIR 73



# ANNUAL REPORT IIC 7.0

## Few Faculty Contributions

**Group of students completed the project :  
“AI Enabled Homeopathy Digital Platform”  
Modern Solution Hub Startup offered by Professor of Practice Mr.  
Aniket Mhala**

Letter of Appointment:

[CLICK HERE](#)

Letter of Completion:

[CLICK HERE](#)

**Kranti Wagle** (Best Teacher Coordinator):



# ANNUAL REPORT IIC 7.0

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

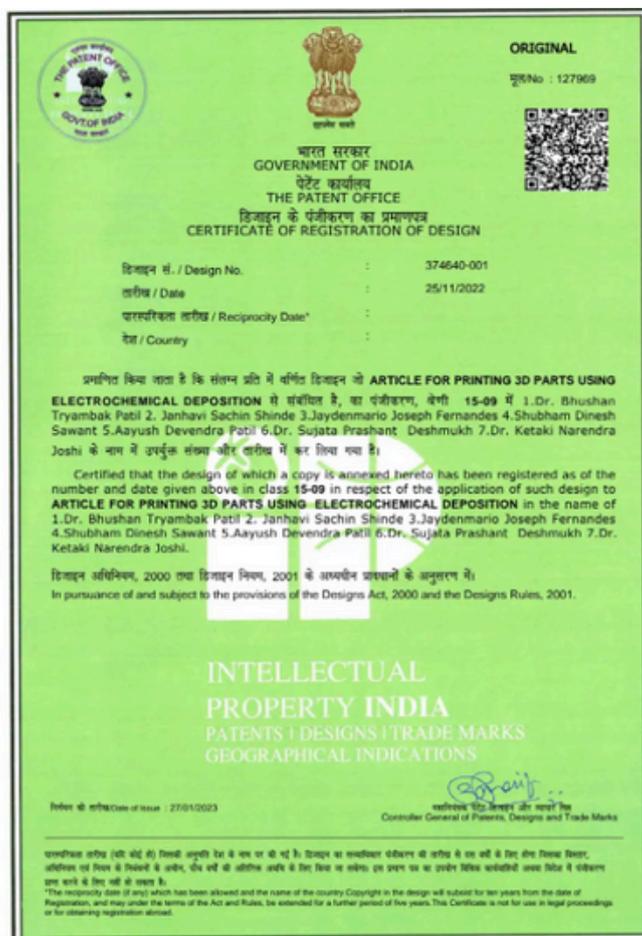
### 1. Design, Analysis and Manufacturing of Metal 3D printer based on electrochemical deposition

#### Team Members:

Janhavi Sachin Shinde  
Shubham Sawant  
Jaydenmario Fernandes  
Mentor: Dr. Bhushan Patil

#### Key Features:

This project proposes a benchtop metal additive manufacturing (AM) system that builds fully dense or near-dense metallic features via electrochemical/electrodeposition along programmed toolpaths. The system merges a controlled electrochemical cell with CNC motion, enabling voxel-level deposition without high temperatures or powders.



# ANNUAL REPORT IIC 7.0

## **2. Fault Diagnosis and Monitoring of a machine using Power BI**

### **Team Members:**

Devang Kunder

Shahbaz Khan

Aditya Patpally

Jayprakash Yadav

Mentor: Prof. Onkar Potadar

### **Key Features:**

Fault diagnosis and condition monitoring are essential for ensuring the reliability, efficiency, and safety of industrial machines. Traditional methods often involve complex software tools and require advanced expertise to interpret data. This work presents a Power BI-based framework for real-time monitoring, visualization, and analysis of machine health data. Sensor signals such as vibration, temperature, and current are acquired and processed to extract relevant features indicative of potential faults. These features are integrated into Power BI dashboards to provide interactive visualizations, trend analysis, and automated alerts. The system enables operators and maintenance engineers to detect anomalies at an early stage, classify possible fault conditions, and support predictive maintenance decisions. By leveraging the accessibility and interactive capabilities of Power BI, the proposed approach offers a cost-effective, user-friendly, and scalable solution for machine fault diagnosis and monitoring in modern industrial environments.

# ANNUAL REPORT IIC 7.0

## 3. Urja Shakti: Connecting Homeowners to Solar Solutions with Geospatial Imagery for Enhanced Rooftop PV Potential and Economic Insights

### Team Members:

- Bhushan Naik
- Tanish Khot
- Bliss Machado

Mentor: Prof. Vaibhav Godbole

### Key Features:

Urja Shakti is a web-based platform designed to meet India's growing need for sustainable energy, aligning with the nation's goal of achieving 300 GW of solar energy capacity by 2030 under the Aatmanirbhar Bharat initiative. With renewable energy at the forefront of combating climate change and achieving energy independence, Urja Shakti bridges gaps in awareness, accessibility, and adoption of rooftop solar installations. Built with modern web technologies like React.js and Google APIs, the platform provides a seamless user experience, enabling users to outline rooftops on interactive maps for precise solar panel placement calculations. By incorporating user inputs such as electricity consumption and appliance usage, the platform generates detailed reports covering energy savings, system specifications, and return on investment analysis. Additionally, users are connected directly with trusted local solar providers, easing decision-making and streamlining the installation process. Urja Shakti also promotes affordability by providing details on government subsidies and financial incentives, making solar energy accessible across income groups. By fostering community engagement, reducing carbon emissions, and supporting local solar businesses, the platform drives both environmental sustainability and economic growth. Through its comprehensive solutions, Urja Shakti simplifies solar adoption while advancing India's vision of sustainable development and energy security.



# ANNUAL REPORT IIC 7.0

## 4. SMART FLUID CONTAINER

### Team Members:

Aarush Wasnik

Krishna Soni

Mugdha Zope

Mentor: Dr. Deepak Bhoir

### Description:

The increasing demand for efficient resource management and sustainable practices in fluid handling has exposed critical shortcomings in traditional monitoring systems. This work presents the design and implementation of a Smart Fluid Container that integrates Internet of Things (IoT) technology with advanced multi-sensor capabilities to enable intelligent, real-time fluid management across industrial, domestic, and community domains. The system utilizes an ESP32 microcontroller interfaced with ultrasonic sensors for accurate fluid level detection, temperature sensors for thermal monitoring, and a servo-mounted infrared sensor array for 360° breach detection. Laboratory testing demonstrates a 95% accuracy rate in fluid level and condition monitoring. Data acquisition, visualization, and predictive analytics are enabled through a ThingSpeak cloud platform, while integration with the Twilio API ensures real-time alert delivery within two seconds of critical events, achieving 99% uptime in operation. Developed at a cost of INR 4,200, the system demonstrates high cost-effectiveness, scalability, and adaptability across diverse applications while supporting predictive maintenance for extended system longevity. Unique features include comprehensive remote monitoring, breach detection, and proactive failure avoidance, distinguishing it from existing solutions. Furthermore, the system contributes toward UN Sustainable Development Goal 6 (Clean Water and Sanitation) by advancing efficient and sustainable water resource management. Future enhancements will focus on additional quality sensors, AI-driven analytics, solar-powered operation, voice-enabled control, and multi-container networking for large-scale deployment. This implementation underscores the potential of IoT-enabled smart systems in advancing sustainable resource monitoring and management practices.



# ANNUAL REPORT IIC 7.0

## 5. Intelligent Beverage Dispenser

### Team Members:

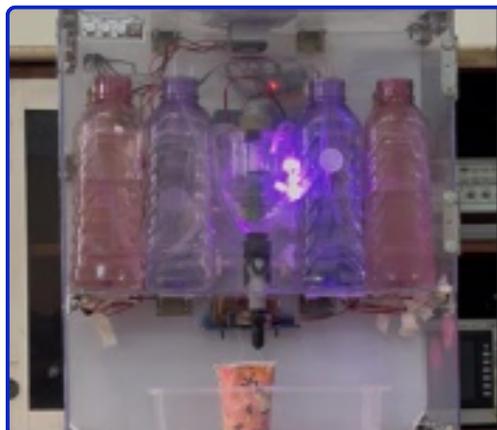
- Shubhankar Deshmukh
- Jersild Dsouza
- Aaron Fernandes
- Mentor: Dr. Sapna Prabhu

### Description:

The Intelligent Beverage Dispenser (IBD) is a modular, integrated hardware-software solution designed to automate the preparation of mixed drinks in establishments such as bars, cafés, and restaurants. Through a mobile application, patrons select a drink from the available menu. The central controller processes the request, determines which ingredients are required, and computes the exact volume of each. Commands are issued to the respective ingredient modules, which dispense their contents into a shared mixing chamber and deliver the final beverage into a serving glass.

Unlike existing systems that mandate purchasing a fixed, monolithic setup, the IBD enables scalable growth: users may begin with a single ingredient module and expand up to ten. Each module requires only a power connection and a link to the controller, making deployment easy and modular. Because the main controller is independent, additional modules can be added without replacing the entire system. Through this separation and modularity, the IBD achieves significantly lower cost-per-module compared to legacy systems.

The IBD's design enhances flexibility, affordability, and expandability in beverage automation. By automating simple drink preparation, it frees human staff to focus on tasks that can't be automated—such as payments, complex mixology, and customer engagement—thereby improving efficiency and service quality.



# ANNUAL REPORT IIC 7.0

## 6. INFI (Interactive Featured Intelligence)

### Team Members:

- Caleb Lewis
- Harshid Modi
- Naimish Purohit

### Description:

The rapid advancement of Artificial Intelligence (AI) and the Internet of Things (IoT) has opened the door to smarter and more adaptive home environments. While existing systems like Amazon Alexa and Google Home provide voice-enabled convenience, they are heavily cloud-dependent, raising concerns about privacy, latency, and cost. Moreover, they are primarily designed for general users, often overlooking the special needs of elderly or visually impaired individuals.

Our proposed project, INFI, aims to bridge this gap by integrating voice-interactive AI, real-time computer vision, and IoT-based appliance control on an affordable edge-computing platform powered by Raspberry Pi. INFI is an advanced, voice-interactive Virtual Assistant AI system designed to enhance residential automation and intelligent living, with a particular focus on elderly and visually impaired users. Developed on the Raspberry Pi platform, INFI offers a compact, scalable, and cost-efficient solution for seamless integration into smart home ecosystems.

By leveraging natural language processing and speech recognition, INFI enables users to intuitively control home appliances—such as lighting, HVAC systems, and multimedia devices—through real-time voice commands. The system integrates a robust surveillance module powered by computer vision and facial recognition, capable of distinguishing between authorized residents and potential intruders, thereby strengthening home security. Beyond automation and security, INFI supports environmental data retrieval, task scheduling, and information services (such as news updates and Telegram messaging). It also provides interactive entertainment functionalities, making it a versatile and comprehensive assistive tool.

A key innovation of INFI is the addition of a self-charging pod, an automated docking and power management system that allows the device to recharge itself without manual intervention. This ensures uninterrupted operation, particularly benefiting elderly and visually impaired users who may find manual charging inconvenient. Overall, INFI exemplifies the integration of artificial intelligence, embedded systems, and edge computing to deliver a reliable, context-aware, and user-centric smart home assistant optimized for accessibility, autonomy, and convenience.

# ANNUAL REPORT IIC 7.0



## 7. 2.5D Object Scanning and Foam Cutting Machine

### Team Members:

- Harsh Nirbhavane
- Mentor: Dr. Sapna Prabhu

### Description:

This project addresses this demand with an innovative 3D scanner that captures an object's shape, converts it into digital 3D coordinates, and transfers these coordinates to a hot wire for cutting. The process begins with a detailed scan of the input object, capturing intricate shape data, which is then translated into 3D coordinates that instruct the hot wire to cut the same shape in materials like foam or plastics.

## 8. GeoSentinel – A SaaS Platform for Oceanographic and Environmental Insights

### Team Members:

- Chaitanya Rele
- Aditya Rathod
- Kaustubh Natu
- Mentor: Dr. Swapnali Makdey

# ANNUAL REPORT IIC 7.0

## Description:

GeoSentinel is an AI-powered ocean intelligence web/app platform designed to enhance climate resilience, disaster preparedness, and maritime safety. By integrating real-time satellite data, advanced machine learning models like ConvLSTM, and interactive geospatial visualizations, GeoSentinel provides actionable insights into sea surface temperature trends, climate anomalies, and marine ecosystems.



# ANNUAL REPORT IIC 7.0

## 9. AI-Driven Route Optimization for Garbage Collection Trucks

### Team Members:

- Rishabh Pathak
- Sahil Khan
- Akshat Sarraf
- Mentor: Prof. Saurabh Kulkarni
- 

### Description:

Urban waste management is a critical issue facing municipalities worldwide, driven by increasing urbanization, rapid population growth, and the surge in waste generation. Traditional garbage collection systems rely on static schedules and predefined routes, which are often suboptimal and fail to adapt to real-time scenarios like varying garbage levels, changing traffic conditions, or unplanned obstructions. This project addresses these challenges through the development of an AI-driven route optimization system for garbage collection trucks, leveraging advanced technologies to enhance operational efficiency and sustainability. Geographic data is processed using tools like OpenStreetMap (OSM) to create accurate road networks, while optimization algorithms and mapping tools compute the most efficient routes for garbage collection. To achieve this, the project employs the Grey Wolf Optimization (GWO) algorithm, a nature-inspired metaheuristic technique that efficiently determines optimized routes by mimicking the hunting behavior of grey wolves.



# ANNUAL REPORT IIC 7.0



Won **Code Utsav** at NIT Raipur

**Team 4i**



Secured 1<sup>st</sup> position  
and won 50,000INR  
at **SunHacks**

# ANNUAL REPORT IIC 7.0



**Simona, Joel, Aditi and Harsh won 'MUMBAI HACKS' powered by Nvidia, Meta**



**Team NiceVibes secured 1<sup>st</sup> place in Technovate 2.0**  
**Topic: Food Waste Tracker and Donation Website and App**

# ANNUAL REPORT IIC 7.0



Team Smooth Operators won **GAJSHIELD KJSSE HACK8** organised by K.J. Somaiya College of Engineering



Team NiceVibes secured 1<sup>st</sup> place in **Technovate 2.0**

Topic: Food Waste Tracker and Donation Website and App

# ANNUAL REPORT IIC 7.0



**Winner of IIT Guwahati's Strategy Storm'25**



**Pitched innovative ideas to industry professionals and entrepreneurs, in Shark Tank-style events**



**1st RunnerUp at IDE Bootcamp Edition 2 Phase II - 2025**

# ANNUAL REPORT IIC 7.0



## Summary of Achievements (2024-2025)

Sr. No.	Event / Competition Name	Organizing Body	Achievement	Date	Certificate Available
1	Smart India Hackathon (SIH) 2024 – Software Edition	AICTE-MIC	Winner – PS ID SIH1590	Dec 2024	Yes
2	Strategy Storm 2025 – Case Competition	Consulting and Analytics Club, IIT Guwahati	Winner	Jan 2025	Yes
3	IDE Bootcamp Edition 2 – Phase II	AICTE-MIC	1st Runner Up	Feb 2025	Yes
4	Ace The Case – Finalist, Case Competition E-Summit 2025	E-Cell, IIT Bombay	National Finalist	Feb 2025	Yet to come
5	VJTI TBI – Idea Competition	Veermata Jijabai Technological Institute, Mumbai (VJTI) Incubator	Shortlisted Finalist	Mar 2025	Yet to come
6	IEEE Prakaip Project Competition	IEEE - Fr. Conceicao Rodrigues College of Engineering, Mumbai	Participation / Finalist	Apr 2025	Yes

### 1. 🏆 Technovation 2025 – IEEE Bombay (State-Level Project Competition)

#### Rounds & Results:

- **Divisional Round (Mumbai Division):** Secured **2nd place**, qualified for state-level finals.
- **Finale (Pandharpur, Maharashtra):** Competed against top divisional teams across the state and achieved **1st place**, winning a cash prize of **₹15,000**.



# ANNUAL REPORT IIC 7.0

Patents and Copyrights Filed/ Published/ Granted (YEAR 2024-2025)					
Sl. No	Type of Patent	Patent Application No.	Faculty Inventor/s Name	Patent Details	Status
1	Design	419875-001	Dr. Vasim Shaikh Dr. Bhushan Patil	Dynamic Vibration Tester	Granted
2	Design	458929-001	Dr. Bhushan Patil	Core with Cooling Slot for Thermal Uniformity in Plastic Injection Moulding	Filed
3	Design	458918-001	Dr. Bhushan Patil	Mold with Cooling Slot for Thermal Uniformity in Plastic Injection Moulding	Filed
4	Design	412814-001	Dr. Sapna Prabhu	Helmet for better Airflow and slots for Electronic Hardware integration using Lattice structures	Granted
5	Design	447560-001	Prof. Dipali Koshti	AI BASED AUTONOMOUS WEEDING ROBOT	Granted
6	Software Copyright	SW-19726/2024	Prof. Prajakta Bhangale	Copyright on "Geospatial Data Security by using Hybrid Chaotic Map"	Registered
7	Software Copyright	SW-20223/2025	Prof. Jeenal Rambhia	ARRHYTHOMAT-MATLAB BASED SOFTWARE TO DETECT ARRHYTHMIA	Registered
8	Utility	202421078489	Sarika Davare	DocAssist: AI Doctor's Assistant	Filed

# ANNUAL REPORT IIC 7.0

Sl. No	Type of Patent	Patent Application No.	Faculty Inventor/s Name	Patent Details	Status
1	Design	424311-001	Dr.V.S Jorapur, Prof.Kranti Wagle, Prof.Ashwini Pansare	Exoskeleton for Knee Design	Granted
2	Design	440176-001	Rhea Bhalekar, Prof. Aseem Nevrekar, Prof. Kranti Wagle	SOLAR OPTIMIZED VERTICAL AXIS WIND TURBINE Design	Filed
3	Design	423302-001	Sonia Mahendra Pol, Arya Anant Singarwadi, Nathan Pereira, Bhushan Tryambak Patil, Miriyala Veerabhadrrao D N, Sujata Prashant Deshmukh	Food Feeder for Fish Tank	Pending
4	Design	421414-001	Ashwini Amit Pansare, Neel Narendra Khot, Rahel Sanjay Pereira, Kranti Kiran Wagle	TIMED WATER DISPENSING CONTROL SYSTEM FOR WATER PURIFIERS	Granted
5	Design	425887-001	Neel Narendra Khot, Aswhini Amit Pansare, Rahel Sanjay Pereira, Eram Sanjay Pereira, Prakash Paritosh Biswas, Susan Augustine Fernandes	Vertical Axis wind Turbines with solar Panel and water Turbine	Granted
6	Ordinary	TENP/E-1/93506/2024-MUM	Ashwin Amit Pansare, Akshaya Lakshmi Chandrasekar, Yashika Ashok Haritwal, Basilica Anthony, Sahaya Blessy, Kranti Kiran Wagle Agni	Kavach: Machine Learning Powered Fire Detection & IoT Integrated Vital Sign-Based Rescue Aid	Published
7	Ordinary	202421052323	Roshni Suresh Padate	An Automatic Cooker with a Built-in Heater	Published
8	Ordinary	202121053421	Roshni Suresh Padate	IoT Device-Based Visual Vehicle Tracking System	Granted

# ANNUAL REPORT IIC 7.0

9	Design	374640-001	Dr. Sujata Deshmukh and team	Article for Printing 3D Parts using Electrochemical Deposition	Filed
10	Ordinary	202241051449	Dr. Sujata Deshmukh	IoT and AI based fruit recognition, calorie estimation using DL algorithms	Published
11	Ordinary	202221070479	Dr. Sujata Deshmukh	Floodknow: AI Based Hybrid System for Flood Severity Prediction	Published
12	Design	375204-001	Dr. Sujata Deshmukh	Football Thrower	Granted
13	Utility	202321056911	Monali Shetty, Aiden Samuel, Sia Viji P, Edryn S. Eazhakadan	Detection of malicious blockchain attacks using federated learning	Published
14	Ordinary Application	202221060823	Prof. Monali Shetty and team	Blockchain based system for project funding and CSR funding	Published
15	Utility	202321015188	Prof. Sangeeta Parshionikar and team	Verbal Agreement Signing using Blockchain & Speech Recognition	Published
16	Utility	202321018653	Prof. Sangeeta Parshionikar and team	Metastore - An image based 3D garment making system for virtual try-ons	Published
17	Ordinary Application	202321039493	Prof. Kranti Wagle, Prof. Swati Ringe, Prof. Sujata Deshmukh and team	Autiscape – Immersive 3D Therapy for Autism	Filed
18	Ordinary Application	202321020315	Prof. Kalpana Deorukhkar and team	Detection of video duplication using blockchain	Filed

# ANNUAL REPORT IIC 7.0

19	Ordinary Applicati on	202321027 907	Prof. Supriya Kamoji and team	Multimodal Disaster Risk Management system	Filed
20	Utility	202321053 532	Ashwini, Princely Lopes, Warren, Liny, Yash	Utilization of RL & Explainable AI in Self-driving Car	Published
21	Utility	202321050 754	Sushma Fattuji Nagdeote, Sandesh RAUT, Amey BAGWE, Wesley Jude LEWIS, Vailantan FERNANDES	A SYSTEM FOR ATTENDANCE MANAGEMENT AND A METHOD THEREOF	Published
22	Design	409507- 001	Dr. Virendra Kuma, Dr. Nitish Pathak, Dr. B. S. Daga, Apoorva Verma, Dr. Leena Bhatia, Dr. Neelam Sharma, Anjani Kumar	AI BASED SIGNBOARD FOR MARKETING	Published
23	Utility	202521050 597	Dr. Sagar Ramesh Rane, Dr. Vijay Maruti Shelake, Prof. Gouri Deepak Bhasale, Prof. Tushar Hindurao Mohite, Prof. Shivaji Rajaram Vasekar	A Method for Adaptive Encryption in Peer-To-Peer Network	Published
24	Utility	202521054 607	Dr. Vijay Maruti Shelake, Dr. Sujata Deshmukh, Prof. Kalpana Deorukhkar, Fiza Zafar Khan, Shreya Vaibhao Joshi, Riya Naik	Scholarsfriend: Ai-Powered Research and Journal Recommendation System	Published

# ANNUAL REPORT IIC 7.0

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

**NEEL KHOT**



**Certificate of Incorporation :**

  
सत्यमेव जयते

**GOVERNMENT OF INDIA**  
**MINISTRY OF CORPORATE AFFAIRS**  
Central Registration Centre  
**Certificate of Incorporation**

[Pursuant to sub-section (2) of section 7 and sub-section (1) of section 8 of the Companies Act, 2013 (18 of 2013) and rule 18 of the Companies (Incorporation) Rules, 2014]

I hereby certify that NETFORTRESS TECHNOLOGIES PRIVATE LIMITED is incorporated on this TWENTY FIRST day of JUNE TWO THOUSAND TWENTY FIVE under the Companies Act, 2013 (18 of 2013) and that the company is Company limited by shares

The Corporate Identity Number of the company is **U62011PN2025PTC243271**  
The Permanent Account Number (PAN) of the company is **AAKCN5864C\***  
The Tax Deduction and Collection Account Number (TAN) of the company is **PNEN23989A\***

Given under my hand at Manesar this TWENTY FIRST day of JUNE TWO THOUSAND TWENTY FIVE

Document certified by DS MINISTRY OF CORPORATE AFFAIRS, CRC MANESAR 2 ->CRC@MCA.GOV.IN  
Digitally signed by  
DS MINISTRY OF CORPORATE AFFAIRS, C MANESAR 2  
Date: 2025.06.21 10:08:33 IST

Shamrao Patil  
Assistant Registrar of Companies/ Deputy Registrar of Companies/ Registrar of Companies  
For and on behalf of the Jurisdictional Registrar of Companies  
Registrar of Companies  
Central Registration Centre

Disclaimer: This certificate only evidences incorporation of the company on the basis of documents and declarations of the applicant(s). This certificate is neither a license nor permission to conduct business or solicit deposits or funds from public. Permission of sector regulator is necessary wherever required. Registration status and other details of the company can be verified on mca.gov.in

Mailing Address as per record available in Registrar of Companies office:  
NETFORTRESS TECHNOLOGIES PRIVATE LIMITED  
Sr No -47, Pl-52, Vivek Nagar, Fl No - 1, Akurdi, Pune City, Pune- 411035, Maharashtra  
\*as issued by Income tax Department

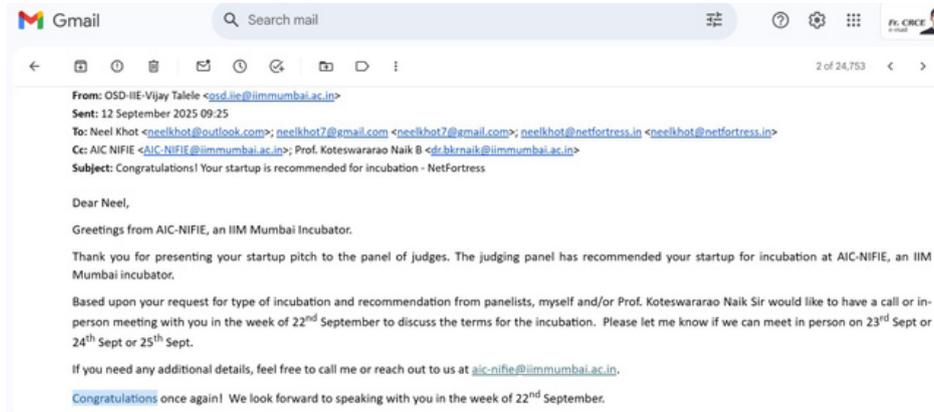


# ANNUAL REPORT IIC 7.0

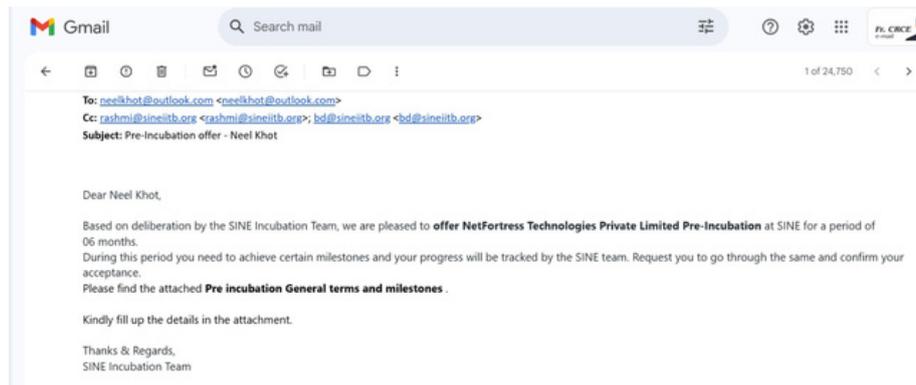
## Certificate of Recognition , DPIIT



## Recommended at IIM Mumbai Incubator



## Offered Pre-Incubation at SINE IIT Mumbai

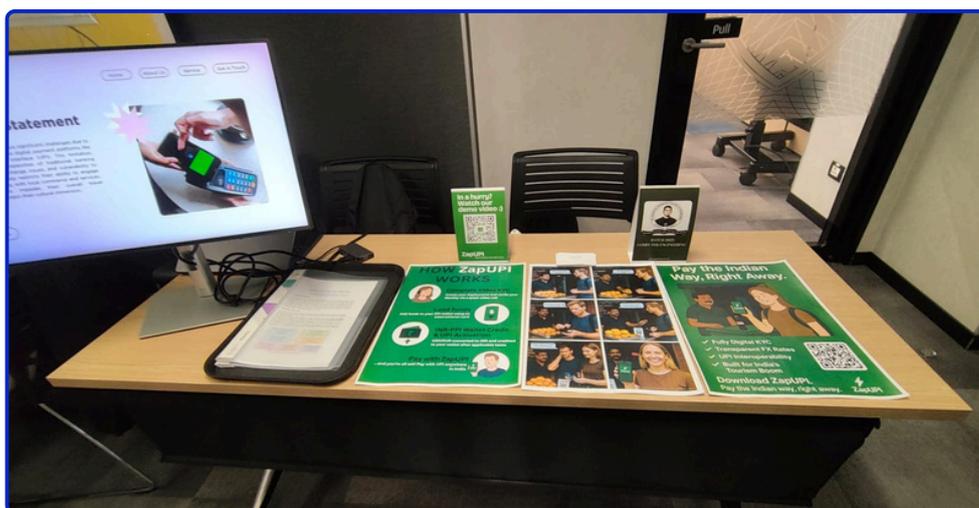


# ANNUAL REPORT IIC 7.0

## I. Break through Innovations / Technology Developed at the institute

- **ZapUPI** by **Soham and Bryce**

Foreign tourists visiting India face significant challenges in making everyday payments. Cash is prone to theft, loss, and is often inconvenient due to the lack of change with small vendors. International credit, debit, and forex cards are not widely accepted outside major cities. Accessing UPI typically requires opening an Indian bank account, involving physical visits or slow digital onboarding, which is impractical for short-stay tourists. Traditional bank KYC processes delay access, while opaque taxation and exorbitant forex fees by money changers further reduce convenience and trust. These barriers leave tourists underserved, unable to participate easily in India's digital payment ecosystem.



YouTube Video Link. [CLICK HERE](#) 

# ANNUAL REPORT IIC 7.0

- **Angela Dsouza**

Conflicts like Israel-Hamas and Russia-Ukraine reveal air defense gaps, underscoring the need for an automated early warning and evacuation system to protect civilians from missile strikes.

**AGILE MUMBAI**  
Agile Mumbai 2025 Conference

## AERO VIGILANCE

Protecting lives & Safeguarding Nation in National Air threat Disasters

**Problem**  
Conflicts like **Israel-Hamas** and **Russia-Ukraine** reveal **air defense gaps**, underscoring the need for an automated **early warning and evacuation system** to protect civilians from missile strikes.

**Solution**

- Continuous Monitoring**  
Extraction of Geo Location of Missile
- Trajectory Calculation**  
Impact Location using Kalman's filter
- Asynchronous Alerts**  
SMS, Calling, Social Media Integration
- Impact Zone Identification**  
Maps impact zones for evacuation
- Threat Analysis**  
Prediction of Missile Impact
- AI Evacuation Planning**  
Location based and AR

**Current Status**

- Phase 1 **SAR Processing** – GeoTiff image generation
- Phase 2 **Identification** – Missile object detection
- Phase 3 **Trajectory Prediction** – Impact location estimation
- Phase 4 **Alerts** – SMS & call system
- Phase 5 **Evacuation** – Safe-route AR mapping
- Phase 6 **Post-Evacuation** – Voice + safe marking

**Future Plans**  
Future Plans include **advanced prediction**, **crowd-safe evacuation**, **multilingual alerts**, and **live data integration**.

**Impact**

- Enhanced National Security
- Scalable Applications
- Civilian Safety First
- Tech Innovation
- Public Preparedness
- Strategic Readiness

**National Recognition**  
Won Smart India Hackathon 2024, under the AICTE, MIC – Student Innovation Theme: **Disaster Management**  
Project reviewed by mentors from the **Defence Ministry** like:  
• Mr. G. Sathesh Reddy : Former Chairperson at DRDO  
• Mr. Abhay Singh : Director at Ministry of Defence of India  
• Directors at Mahindra Defense Systems Limited

By Angela Dsouza (BE Computer Engineering)  
Team Codiee  
Mentor: Prof. Unik Lokhande

**First Prize** received at Agile Conference 2025

# ANNUAL REPORT IIC 7.0

- **Yash Punmiya, Nishant Maurya, Vinish Rexson**

Education today often feels monotonous: textbooks are static, lectures uninspiring, and quizzes repetitive. Students disengage, teachers struggle to maintain interest, and true learning outcomes get compromised.

  
  
Society Of St. Francis Xavier, Pinar  
S.F.C.R.C.E.  
College of Engineering

## GamifiED

**AGILE MUMBAI**  
Agile Mumbai 2025 Conference

1. **Project Title** :- GamifiED
2. **Problem definition** :- Education today often feels **monotonous**: textbooks are **static**, lectures **uninspiring**, and quizzes **repetitive**. Students **disengage**, teachers struggle to **maintain interest**, and true **learning outcomes** get **compromised**.
3. **Solution provided** :- GamifiED transforms traditional content into interactive, **multilingual games** using **AI-powered content chunking** and **question generation**. With ready-to-play formats like **Snake & Ladder, Bingo, Flip Cards, and more**, it blends fun with rigorous learning. **Teachers** also get **real-time analytics** to track progress.
4. **Impact seen / expected** :-
  -  **Boosted Engagement**: Students learn actively while enjoying gameplay.
  -  **Improved Retention**: Memory-based games enhance recall & understanding.
  -  **Teacher Efficiency**: Automatic question generation saves hours of effort.
  -  **Accessibility**: Multilingual support makes it inclusive for diverse learners.
5. **Current status** :- Prototype live with multiple game formats integrated
6. **Future plans** :- Expand to **support full K-12 + higher education curriculum**
  - Personalization** via **adaptive learning paths**
  - Institutional onboarding** at scale
  - Marketplace** for educators to **upload & gamify** their content instantly
8. **Project Team Name** :- 4istudios
9. **Project Team details** - TE-Computer Engineering (Yash Punmiya, Nishant Maurya, Vinish Rexson)

# ANNUAL REPORT IIC 7.0

- **Sakshi Kupekar & Shashank Tiwari**

A system combining physical pedestrian infrastructure improvements with AI-powered crime reporting to create safer urban environments.

**AGILE MUMBAI**  
AGILE MUMBAI 2025 CONFERENCE  
Flowering in the Age of Peculiarity

**SAFEWALK**  
Integrated Pedestrian Safety and Crime Reporting System



 **Domain**

**Smart Cities | Public Safety | Urban Infrastructure | AI-Powered Emergency Response**

- **Pedestrian Safety:** Reducing 67% of vulnerable road user fatalities through smart, accessible FOB designs.
- **Crime Prevention:** Addressing 60-70% underreported crimes with anonymous, AI-assisted reporting.
- **Community Safety:** Integrating physical infrastructure and digital tools for holistic urban protection.

 **Solution**

A system combining physical pedestrian infrastructure improvements with AI-powered crime reporting to create safer urban environments.

- **Smart FOB Network:** Weather-protected bridges with accessibility features, micro-markets, and community spaces to encourage usage
- **Instant Crime Reporting:** Voice, text, and image-based reporting with AI-powered urgency classification and automatic police dispatch
- **Real-Time Safety Alerts:** Geofencing notifications and safe route recommendations based on live crime data and pedestrian traffic
- **Community Engagement:** Gamified FOB usage rewards, volunteer emergency response, and local employment opportunities through safety infrastructure

 **Recognition Received**

Our team placed **4th** out of 25,000+ teams in the Road Safety Hackathon by the **Ministry of Road Transport & Highways, NHAI & HOAI**, earning a ₹50,000 consolation prize and internships at the NHAI Headquarters in New Delhi.

**Current Status**

- Functional prototype of crime reporting app and FOB design ready
- AI urgency detection and blockchain-based evidence storage operational
- Field studies and survey data collected for FOB design improvements

**Impact seen**

1. Up to 65% reduction in pedestrian accidents
2. 30-40% increase in incident and crime reporting
3. 25-35% faster law enforcement response times
4. Increased community safety awareness & involvement

**Future Plans**

- Deployment of pilot FOB installations
- Integration with city emergency services and transport networks
- Expansion of AI models for predictive crime analytics and behavioral nudges

**Team: Innovation Nation**  
Shashank Tiwari Sakshi Kupekar

# ANNUAL REPORT IIC 7.0

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

□ NISP Adoption status – Trained Faculty, Policy Formulation, Policy Implementation

### **TEAMS/COUNCILS FELICITATED AT ANNUAL FUNCTION AS PER NISP**



# ANNUAL REPORT IIC 7.0

## Smart India Hackathon 2024

We have total 9 Finalists out of which 2 were Winners

### Teams Codiee (Winners)



### Their Certificates



# ANNUAL REPORT IIC 7.0

## Team SafeWay Innovations (Winner)

Team Leader-Bhushan Suresh Naik

Idea Name: UrjaShakti:- Streamlining solar installation process

Mentor: Prof. Vaibhav Godbole



## Their Certificates



# ANNUAL REPORT IIC 7.0

**Team 4i** shortlisted for SIH 2024 (Batch 3) national level competition.

Team Leader- Yash Punmiya

Idea Name: sansthaein aur samvidhan :- Gamified Version of Constitution

Mentor: Prof. Mayur Aggarwal



# ANNUAL REPORT IIC 7.0

Team: NO2Sense

SIH1734 - Gujarat Technological University, Ahmedabad, Gujarat





# ANNUAL REPORT IIC 7.0

## Team Django Uncoded



# ANNUAL REPORT IIC 7.0

**Team Code\_Blooded** shortlisted for SIH 2024 (Batch 2) national level competition.  
Idea Name: Transform Docs Application Empowering Machine-Readable Document Management System.  
Mentor: Prof. Ankita Amburle



# ANNUAL REPORT IIC 7.0

The Cache Cows shortlisted for SIH 2024 (Batch 2) national level competition.

Idea Name: AI supported AICTE approval portal

Mentor: Prof. Kranti Wagle



# ANNUAL REPORT IIC 7.0

## Code Breakers



# ANNUAL REPORT IIC 7.0

## AICTE - MIC PARTICIPATION IN INNOVATION DESIGN ENTREPRENEURSHIP (IDE) BOOTCAMP



The team **SafeWay Innovations** received a 1st runner up award for pitching up their idea at IDE Bootcamp organized by AICTE at Gitanjali Institute of Technical Studies, Udaipur. A total of 40+ teams from various states participated in the Bootcamp.

# ANNUAL REPORT IIC 7.0

## Yukti Innovation Challenge / Productisation

PM SHRI School Mapping Mapped PM SHRI Schools

Selected Schools

Once an institute is successfully mapped, the status will be updated to "Pending with MIC". This indicates that your institute has selected a school for mentorship. However, the final confirmation and mapping will be completed and updated by MIC. The final update is expected by the end of this month.

S.No.	Code	School Name	City	District	State	Email	Distance	Action
1		SHASAKIYA ASHRAM SCHOOL BHINAR		Thane	MAHARASHTRA		50	Pending With MIC Remove Mentorship
2		JAWAHAR NAVODAYA VIDYALAYA ,THANE	PALGHAR	Palghar	MAHARASHTRA	jvthane@gmail.com	111km	Pending With MIC Remove Mentorship

S.No.	Innovation Title	Theme	Innovator Detail
1	QRCipher - All in One Barcode for all Products	Manufacturing,	Mayur Dharampal Aggarwal mayur.aggarwal@fragnel.edu.in
2	QCloud: India's First Pay-Per-Use Quantum Cloud for Fintech & Pharma	ICT, cyber-physical systems, Blockchain, Cognitive computing, Cloud computing, AI & ML, Finance Life Sciences,	Amrita Pati amritapati022@gmail.com
3	Gamified	Software - Web App Development, Smart Education, Education,	Yash Rakesh punmiya yyash7379@gmail.com
4	ResQ AI	Healthcare & Biomedical devices, Software - Mobile App Development, Software - Web App Development, Smart Cities, Defence & Security,	Shaun Mendes shaunkmendes@gmail.com
5	QCloud: India's First Pay-Per-Use Quantum Cloud for Fintech & Pharma	ICT, cyber-physical systems, Blockchain, Cognitive computing, Cloud computing, AI & ML, Finance Life Sciences,	Amrita Pati amritapati022@gmail.com 7709190684
6	IntelliDocs	ICT, cyber-physical systems, Blockchain, Cognitive computing, Cloud computing, AI & ML, Software - Web App Development,	Rohan Benoy crce.9993.ce@gmail.com
7	GeoSentinel: A SaaS Platform for Sea Surface Temperature Monitoring, Prediction, and Environmental Insights	Other Emerging areas Innovation for Start-up, Software - Web App Development, Sustainable Environment,	Aditya Mahendrasingh Rathod adityarathod2704@gmail.com
8	BharatSecure – AI-Powered Incident Reporting & Response System	Other Emerging areas Innovation for Start-up, Software - Mobile App Development, Software - Web App Development, Smart Cities, Defence & Security,	Jacell Jamble jacelljamble@gmail.com
9	Urja Shakti : Connecting Homeowners to Solar Solutions with Geospatial Imagery for Enhanced Rooftop PV Potential and Economic Insights	Renewable and affordable Energy, Software - Web App Development, Sustainable Environment,	Bhushan Suresh Naik rexbhushan14@gmail.com
10	MentorConnect	Software - Mobile App Development, Software - Web App Development,	Nishant Maurya mauryanishant2005@gmail.com
11	Gamified	Software - Web App Development, Smart Education, Education,	Yash Rakesh punmiya yyash7379@gmail.com
12	NetFortress	ICT, cyber-physical systems, Blockchain, Cognitive computing, Cloud computing, AI & ML, Other Emerging areas Innovation for Start-up, Software - Web App Development, Defence & Security,	Neel Khot neelkhot@outlook.com 7715072136

# ANNUAL REPORT IIC 7.0

## Yukti Innovation Challenge / Productisation

### Challenge Detail

[Back](#)

**Challenge Title** -Yukti Innovation Challenge 2025

**Coordinator Name** -Dipan Sahu

**Coordinator Email** -yukti@aicte-india.org

**Coordinator Phone** -[https://iic.mic.gov.in/about-us/contact\\_us](https://iic.mic.gov.in/about-us/contact_us)

**Submission Start Date** -2025-05-14

**Submission End Date** -2025-06-30

**Event Start Date** -2025-06-16

**Event End Date** -2026-09-10

S.No.	Innovation Title	Theme	Innovator Detail	Action
1	Urja Shakti : Connecting Homeowners to Solar Solutions with Geospatial Imagery for Enhanced Rooftop PV Potential and Economic Insights	Renewable and affordable Energy,Software - Web App Development,Sustainable Environment,	Bhushan Suresh Naik rexbhushan14@gmail.com	
2	ResQ AI	Healthcare & Biomedical devices,Software - Mobile App Development,Software - Web App Development,Smart Cities,Defence & Security,	Shaun Mendes shaunkmendes@gmail.com	
3	QJoud: India's First Pay-Per-Use Quantum Cloud for Fintech & Pharma	ICT, cyber-physical systems, Blockchain, Cognitive computing, Cloud computing, AI & ML.,Finance Life Sciences,	Amrita Pati amritapati022@gmail.com 7709190684	
4	NetFortress	ICT, cyber-physical systems, Blockchain, Cognitive computing, Cloud computing, AI & ML.,Other Emerging areas Innovation for Start-up,Software - Web App Development,Defence & Security,	Neel Khot neelkhot@outlook.com 7715072136	
5	MentorConnect	Software - Mobile App Development,Software - Web App Development,	Nishant Maurya mauryanishant2005@gmail.com	
6	GeoSentinel: A SaaS Platform for Sea Surface Temperature Monitoring, Prediction, and Environmental Insights	Other Emerging areas Innovation for Start-up,Software - Web App Development,Sustainable Environment,	Aditya Mahendrasingh Rathod adityarathod2704@gmail.com	
7	GamfiED	Software - Web App Development,Smart Education,Education,	Yash Rakesh punmiya yyash7379@gmail.com	
8	BharatSecure – AI-Powered Incident Reporting & Response System	Other Emerging areas Innovation for Start-up,Software - Mobile App Development,Software - Web App Development,Smart Cities,Defence & Security,	Jacell Jamble jacelljamble@gmail.com	

# ANNUAL REPORT IIC 7.0

## Team Received Funding Of Rs 6 Lakhs under Yukti Innovation Challenge 2023

IIC YT LINK: [CLICK HERE](#)



Fr. CRCE  
e-mail

Kranti Wagle CRCE <kranti@fragnel.edu.in>

### Result Announcement: Funding Assistance to Innovations from IIC Institutions - YUKTI Innovation Challenge 2023- Reg.

2 messages

AICTE(no-reply) <noreply14@aicte-india.org>  
To: kranti@fragnel.edu.in

Thu, Apr 18, 2024 at 5:37 PM

Dear IIC Institute Incharges,

Greetings from the Ministry of Education's Innovation Cell and AICTE !

As part of the Institution's Innovation Council (IIC) initiatives of the Ministry of Education's Innovation Cell, since 2018, MIC and AICTE provides mentoring and funding assistance to shortlisted innovations and startups from IIC institutions routed through various challenges and competitions such as National Innovation Challenge-YUKTI Innovation Challenge (YIC), SIH etc. So far MIC has supported 75 ideas/innovations with grant support and incubation linkage access, out of these more than 55 innovations have been transformed into a Startup and mobilised grants from various sources and many of them also raised investments.

The YUKTI Innovation Challenge (YIC) 2023 is the 3rd edition of innovation challenge and its a 360 degree experiential learning program built upon the YUKTI Innovation and IPR Repository created in IIC institutions, it aims at hand-hold young student and faculty innovators, and offers a series of mentoring, training, demonstration, pitching, and evaluation sessions to innovators from Higher Education Institutions (HEIs). The program aims to prepare innovators to go through a path of experiential learning, transforming their innovations into startups or facilitating technology transfer for scale-up.

In this current edition, MIC has received a total 4,103 nominations of innovations in the stage of TRL 4-9 from 800+ IIC institutions and all of them have already undergone multiple rounds of mentoring, screening and series of 21 online expert talk sessions on various aspects of innovation and business model validation. Finally, 1,946 innovations completed the training and they were invited to attend



### YUKTI Innovation Challenge 2023

List of Innovations eligible for grant assistance from AICTE/MIC

IIC YT LINK: [CLICK HERE](#)

		stem more			
77	IR2023-831042	HEAD MOVEMENT AND VOICE CONTROLLED WHEELCHAIR FOR QUADRIPLLEGIC PATIENTS	DR SUMIT SINGH PHUKELA	Haryana	₹ 4,00,000.00
78	IR2022-773491	Withanolide A -a potent inhibitor of mitochondrial HSP90 of Hepatocellular Carcinoma (HCC)	Dr. P.K.Praveen Kumar	Tamil Nadu	₹ 5,00,000.00
79	IR2023-865167	HAND GESTURE CONTROLLED PHYSICAL AND DIGITAL TWIN OF ROBOTIC ARM	Ojas Jain	Andhra Pradesh	₹ 6,00,000.00
80	IR2024-896565	ROCKVED - A Gamified Approach to Vedic Mathematics and ISRO	Pranav V	Karnataka	₹ 6,00,000.00
81	IR2024-896584	Vani- Speech and sound interventioapp	Saniyaa B Shetty	Andhra Pradesh	₹ 6,00,000.00
82	IR2022-782362	AsthaGraha Educational Space Game	Santo Sunny	Maharashtra	₹ 6,00,000.00
83	IR2022-800075	Fabrication of electronic kit using spectrophotometric method to detect contaminants in Oils such as olive oil and vegetable oil	shaik kareem ahmmad	Telangana	₹ 5,00,000.00

# ANNUAL REPORT IIC 7.0

Yukti idea team progrss Evaluation of the team with industry experts panel.

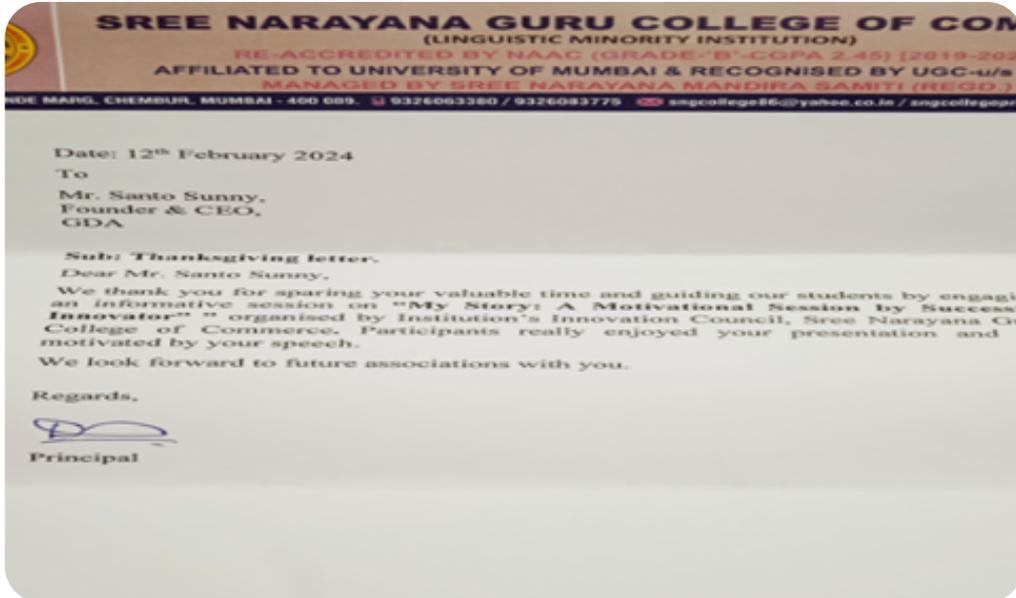
YT Video Link: [CLICK HERE](#) 



Company Registration of Team Asthagraha selected at Yukti Innovation Challenge 2023

Spandan Enterprises		Performa Invoice			
<b>Spandan Enterprises</b> Address: 521/13 Samadhan Niwas, N M Joshi Marg , Byculla West ,Mumbai 400011 PAN No : 29AKPW00028 Firm Name : GDA Studio Games		Invoice No. Sep-2024/023 Date : 03/09/2024 PO No. NA PO Date: NA Payment Terms: Advance			
Sr.no.	Description	HSN CODE	Quantity	Unit Price	Total
1.00	Company Registration		1	35000.00	35000.00
	Certificate of Incorporation				
	PAN				
	TAN				
	PF Registration				
	ESIC Registration				
	GST Registration				
				Taxable Value	35000.00
				GST Rate	0.00
				GST Amount	0.00
				Total Value	35000.00
Total Invoice Amount in Words: Thirty Five Thousand Only Tax Payable by Recipient (if Reverse Charge basis): <b>NO</b>					
<b>Authorized Signatory</b> SWASHANT DILIP KADAM (Digitally signed by Swashant Dilip Kadam, DN: cn=Swashant Dilip Kadam, o=Spandan Enterprises, ou=Spandan Enterprises, email=swashant@spandan.com)					
<b>BANK DETAILS OF SUPPLIER</b> Bank Name : State Bank Of India					

# ANNUAL REPORT IIC 7.0



## Felicitation of Founder of GDA(ASTHAGRAHA STARTUP) SUCCESSFUL INNOVATOR



[YT Video Link: CLICK HERE](#) 

# ANNUAL REPORT IIC 7.0

## Participation in SEMICON 2025 Delhi (Dr. Swapnali Makdey - Associate Professor CSE Dept.)



# ANNUAL REPORT IIC 7.0

## IIC-ATL Mentorship Linkage:



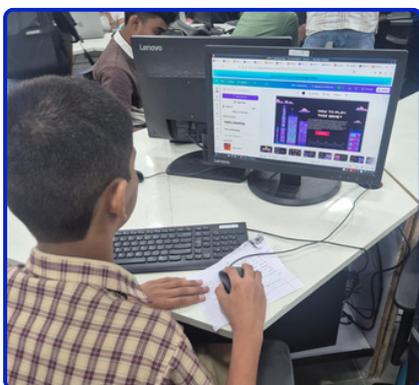
### LCC24 Mentoring of School Children Activities Planned

Sr.No	Name of the Activity	Date	Time	Std	Venue
1	Basics of Web Development with HTML	18/10/2024	9.00a.m - 11.00 a.m	Junior College(Std XI <sup>th</sup> )	Room 708
2	Physics /Chemistry Innovative Experiments	22/11/2024	9.00a.m - 11.00 a.m		Room 708
3	IoT (Tinkercad )/Logic building using Scratch	29/11/2024	9.00a.m - 11.00 a.m		Room 708
4	Poster/PPT making using CANVA	6/12/2024	9.00a.m - 11.00 a.m		Room 708
5	Identify various competitions and motivate/prepare/teach/guide school children to participate in competitions and showcase their innovations at prestigious platforms	13/12/2024	9.00a.m - 11.00 a.m		Room 708

Teacher In-Charges

Dr.Sujata Deshmukh

Prof.Kranti Wagle



Website : [CLICK HERE](#)

# ANNUAL REPORT IIC 7.0

## K.Details of Social Media & Connections of IIC Institute

IIC-CRCE Instagram Link:

**CLICK HERE** 

IIC-CRCE Twitter:

**CLICK HERE** 

IIC Facebook Link:

**CLICK HERE** 

College website:

**CLICK HERE** 

YouTube Channel:

**CLICK HERE** 

# ANNUAL REPORT IIC 7.0

## L. Testimonials from IIC members and external about IIC institute and IIC of MoE's Innovation Cell

### IIC Testimonial - Harsh Vishwakarma



My tenure as the Technical Secretary of the Institution's Innovation Council (IIC) at Fr. CRCE has been one of the most defining experiences of my academic journey. Being entrusted with this responsibility allowed me to play an active role in shaping initiatives that encouraged innovation, collaboration, and real problem solving.

IIC at Fr. CRCE is a vibrant platform where creativity meets execution. During my time, I was involved in organizing workshops, hackathons, and learning sessions that not only strengthened our technical skills but also helped us work together toward meaningful outcomes. The experience gave me a deeper understanding of what it means to take

ownership, make decisions, and inspire teamwork.

The dedication of my fellow IIC members made this journey especially memorable. Every challenge we faced became an opportunity to learn, and every milestone was a collective success.

I am grateful to our Principal, Dr. Surendra Singh Rathod, as well as Prof. Kranti Wagle and Prof. Ashwini Pansare for their constant support and mentorship. A special thanks to my fellow IIC members who made this experience richer and more impactful.

IIC is more than a council; it is a community that empowers students to innovate and grow. I am proud to have contributed to its journey and to the culture of innovation it continues to build.

A handwritten signature in black ink, appearing to read 'Harsh'.

**Harsh Vishwakarma**  
Technical Secretary

# ANNUAL REPORT IIC 7.0

## Testimonials from IIC members and external about IIC institute and IIC of MoE's Innovation Cell



My journey as the Technical Advisor of the Google Developer Student Clubs (GDSC) at Fr. CRCE has been immensely fulfilling, made possible through the unwavering support of the Institution's Innovation Council (IIC). The collaboration between GDSC and IIC has created an ecosystem where innovation thrives and students are empowered to turn their ideas into reality.

The IIC has been instrumental in supporting our initiatives, whether it was organizing large-scale hackathons that brought together brilliant minds from across the region, or launching groundbreaking events like "Unplug," our startup launchpad that we introduced last year. This event became a catalyst for entrepreneurial thinking on campus, providing students with a platform to pitch their ideas and receive mentorship from industry experts.

What sets IIC apart is its constant encouragement to push boundaries and explore uncharted territories. They don't just support existing ideas; they motivate us to innovate, experiment, and create something entirely new. This mindset has been invaluable during my college years and continues to benefit me in the corporate environment, where creative problem-solving and innovative thinking are highly valued.

Working closely with IIC has fundamentally shaped who I am today. The experience taught me the importance of resilience, strategic thinking, and collaborative leadership. Every challenge we faced together - from budget constraints to logistical hurdles - became a learning opportunity that strengthened my problem-solving abilities and enhanced my confidence in tackling complex projects.

The leadership at IIC, particularly Prof. Kranti Wagle Ma'am, has been a pillar of support throughout our journey. Whether we were fostering startup culture on campus, developing innovative event concepts, or navigating the challenges of student leadership, she has consistently stood behind us, providing guidance and resources whenever needed. Her mentorship has been transformative in developing my leadership style and professional approach.

As our college undergoes the significant transition to autonomous status this year, IIC has evolved alongside, becoming even more innovative in its approach to student support. They have adapted their methods, introduced new initiatives, and maintained their commitment to being accessible and helpful to every student who approaches them with an idea or challenge.

The synergy between GDSC and IIC has created countless opportunities for students to grow, learn, and make meaningful contributions to the tech community. This partnership has not only enhanced our technical capabilities but has also developed our leadership skills, project management abilities, and entrepreneurial mindset. I can confidently say that the person I've become - both professionally and personally - has been significantly influenced by this incredible journey with IIC.

IIC at Fr. CRCE embodies the spirit of innovation and collaboration, and I am grateful to have been part of this transformative journey during my time here.

Soham Parab  
Technical Advisor, GDSC CRCE 2023-24

A handwritten signature in black ink, appearing to read "Soham Parab". The signature is stylized and written over a light blue grid background.

# ANNUAL REPORT IIC 7.0

## Testimonials from IIC members and external about IIC institute and IIC of MoE's Innovation Cell



The Institution's Innovation Council (IIC) at Fr. CRCE has been the backbone of countless initiatives we undertook at GDSC. From an operational standpoint, their support extended far beyond permissions and formalities — it was about giving us the confidence and resources to execute at scale.

Whenever we aimed for something bold — whether it was pulling off "Unplug by the Beach," India's first student-led startup accelerator, or The Bit N Build International Hackathon drew participation across states and countries! IIC ensured that we had the institutional backing to think big and act fast. They helped us navigate budget approvals, venue challenges, and compliance processes in ways that made execution seamless rather than stressful.

What stood out was IIC's openness to experimentation. Instead of restricting us to conventional formats, they encouraged us to try new things: onboarding industry mentors, running creative partnerships like our Red Bull flashmob, and even reimagining how student-led events could combine learning with real-world exposure. This freedom to innovate operationally was crucial, it meant we weren't just executing plans, we were setting new benchmarks.

Equally important was their presence. IIC faculty members didn't just support us from afar, they were with us on event days, showing their trust by standing alongside us as things unfolded. That visible support meant a lot. It created a symbiotic relationship: we trusted them to guide us, and they trusted us to deliver. In times where student-teacher relationships often feel distant compared to the past, this bond of mutual respect and shared responsibility was critical.

Prof. Kranti Wagle Ma'am and the IIC team never hesitated to step in when roadblocks appeared, but equally important, they gave us the independence to take ownership. That balance of guidance, trust, and presence helped us sharpen our planning, negotiation, and leadership skills.

As CRCE transitions to autonomous status, the adaptability of IIC has been evident. They've been proactive in updating processes and introducing new initiatives, ensuring that students continue to find them approachable, responsive, and aligned with evolving needs.

From my vantage point in operations, I can confidently say that IIC's role was not just supportive but transformative. They didn't just enable events to happen, they empowered students to dream bigger, plan smarter, and execute with pride.

Bryce Miranda  
Operational Advisor, GDSC CRCE 2023-24



# ANNUAL REPORT IIC 7.0

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



Being the GDSC Co-Lead at Fr. CRCE and working closely with the Institute Innovation Council (IIC) has been an incredible experience. IIC created such a supportive and inspiring environment that made it possible for us to organize events like the international hackathon Bit N Build and the startup launchpad Unplug by the Beach. Their guidance and encouragement gave us the confidence to try new ideas, take on challenges, and really create something meaningful for our students.

I'm really thankful to the Institute Innovation Council, our Principal Dr. Surendra Singh Rathod, Prof. Kranti Wagle, and Prof. Swati Ringe for always supporting us and believing in our initiatives. This journey has been both fun and rewarding, and I've learned so much along the way.

Shaun Mendes  
GDSC Co-Lead



Video Testimonial by Higher Authority: Dr. Surendra Rathod – Head of the Institute

[CLICK HERE](#) 

Dr. Deepak Bhoir – ARIIA coordinator

[CLICK HERE](#) 

