IIC ID: IC201810555

Annual Report 2021-22

A. About IIC Institute:

- **Vision / Mission of IIC established at the Institute:**

  To promote and nurture student's entrepreneurship, Innovation and IPR culture.

- **Journey of IIC established at the Institute**:
  - IIC at Bharati Vidyapeeth College of Engineering, Navi Mumbai started in October 2018
  - IIC BVCOENM Secured 3 star ranking in 2018-19, 3.5 star ranking in 2019-20, 3.5 star ranking in 2020-21 also
  - Till date IIC-BVCOENM has conducted 100+ Innovation related activities, Idea competition, project competitions, boot camps etc.
- **Diversified representation in the IIC established at the institute from industry, Interdisciplinary & Departments/ Units etc.**

  IIC BVCOENM has representation from various departments in the College, Mechanical Engineering, Computer Engineering, Electronics and Telecommunication Engineering, Instrumentation Engineering, Chemical Engineering, Information Technology etc.

B. Brief mention of key functionaries at the IIC Institute

President: Dr. S. D. Jadhav, IIC-BVCOENM, worked with different research organizations, and have academia for more than 2 decades.

 **Dr. A. S. Bhongade,** Vice President	 **Prof. Dilip Radkar,** Convenor
 Prof. Ranjit Mane, Media Coordinator	 Prof. B. W. Balakhande, Innovation Activity Coordinator
 Prof. Shekhar Mane, Internship coordinator	 Prof. Punam Patil, IPR Activity Coordinator
 Prof. Jagdish Mandhare, Start-up Activity Coordinator	 Prof. Pramod Suryawanshi, ARIIA Coordinator
 Prof. Hanmant Sale, NIRF-Coordinator	 Prof. Yayati Shinde, Member
 Prof. Dipak Raskar, Member	 Prof. Sulakshana Mane, Member

 Dr. Puja Agame, Member	 Prof. Ganesh Katke, Member

C. Portfolio/graphical/Tabular representation of Resource strength of the IIC institution

- **Total No. of IIC Members = 16**

Sr. No.	Name of Member	Key Role / Position in IIC
1.	Dr. S. D. Jadhav	President
2.	Dr. A. S. Bhongade	Vice-President
3.	Prof. Dilip Radkar	Convenor
4.	Prof. Ranjeet Mane	Social Media Coordinator
5.	Prof. B. W. Balakhande	Innovation Activity Coordinator
6.	Prof. Shekhar Mane	Internship coordinator
7.	Prof. Poonam Patil	IPR Activity Coordinator
8.	Prof. J. W. Mandhare	Start-up Activity Coordinator
9.	Prof. Pramod Suryawanshi	ARIIA Coordinator
10.	Prof. Hanmant Sale	NIRF Coordinator
11.	Prof. Yayati Shinde	Member
12.	Prof. Dipak Raskar	Member
13.	Prof. Sulakshana Mane	Member
14.	Prof. Vijay Mane	Member
15.	Dr. Vaishali Agame	Member
16.	Prof. Ganesh Katke	Member

❖ **Total No. of IAs = 9**

Sr. No.	Name of Member
1.	Dr. A. S. Bhongade
2.	Prof. Ranjeet Mane
3.	Prof. Poonam Patil
4.	Prof. J. W. Mandhare
5.	Prof. Pramod Suryawanshi
6.	Prof. Yayati Shinde
7.	Prof. Vijay Mane
8.	Prof. Ganesh Katke
9.	Prof. Poonam Patil
10.	Dr. Vaishali Agame
11.	Prof. Dilip Radkar
12.	Prof. Dipak Raskar

❖ **Pre-Incubation Unit / Incubation Units = 01**

Repository of Startups Initiated, developed and given Incubation Support at BVCOE Incubation Center.

- Incubation Centre presents a unique opportunity for budding entrepreneurs and start-ups to take their business to the next level.
- Incubation centre provides a rigorous Incubation program and also facilitates, collaborations with mentors, partners, industry leaders and investment professionals.
- Students from all branches work in collaboration at Incubation Center.

- Name of Company :
  PNT SOLUTIONS – founder Mr. Pratik Tirodkar and partner Mr. Ashish Patil

  CORO-BOT INFORMATION

  Ward boys, nurses are the frontline Corona warriors in our society who probably come into contact with Covid positive patients for many times and for the longest duration. It is with a noble thought of helping these

warriors that Pratik Tirodkar, an Instrumentation engineer from Bharati Vidyapeeth College of Engineering, Navi Mumbai and students came out with the idea of developing a robot which would dispense food, water and medicines to corona patients in their wards without necessity of physical presence of nurses and other care-givers.

Pratik and team of students from Innovation and Incubation Centre of Bharati Vidyapeeth College of Engineering have build this Robot in the lockdown period. CORO-BOT was inspired by Prime Minister Narendra Modi's vision of Make in India and his clarion call for innovation. Coro-bot cuts away the requirement of physical contact of nurses and ward boys with the patient. It delivers food, water, medicines to them. It can interact with them by using camera. Patients are cautioned through audio reminders to sanitise their hands before they pick up things from trays. The robot has 3 trays which can store various things. The censors in dispensers ensure that liquids or sanitizers flow quickly when we hold our hand below it and flow is cut-off when the hand/glass is removed from underneath the dispensing area. This not only provides ease but also ensures minimal wastage. Robot has illumination facility using LED lights which makes sure that it can be easily used during night as well. It also has small PC like set-up at top for computer work and entertainment.

Coro-bot not only allows sanitisation by users but it also sanitises itself to avoid spreading of viruses through touching of its surfaces. It has 3 nozzles at the back to spray disinfectant on itself. Moreover, it goes on sanitising the path it treads by using UV lights which do the primary sanitising of its path.

It has 3 trays which can carry 10-15 kg weight each and storage at the bottom has 30 kg capacity. Hence it can easily carry supplies for 10-15 people at a time.

Currently it is being used at Holycross Hospital in Kalyan.

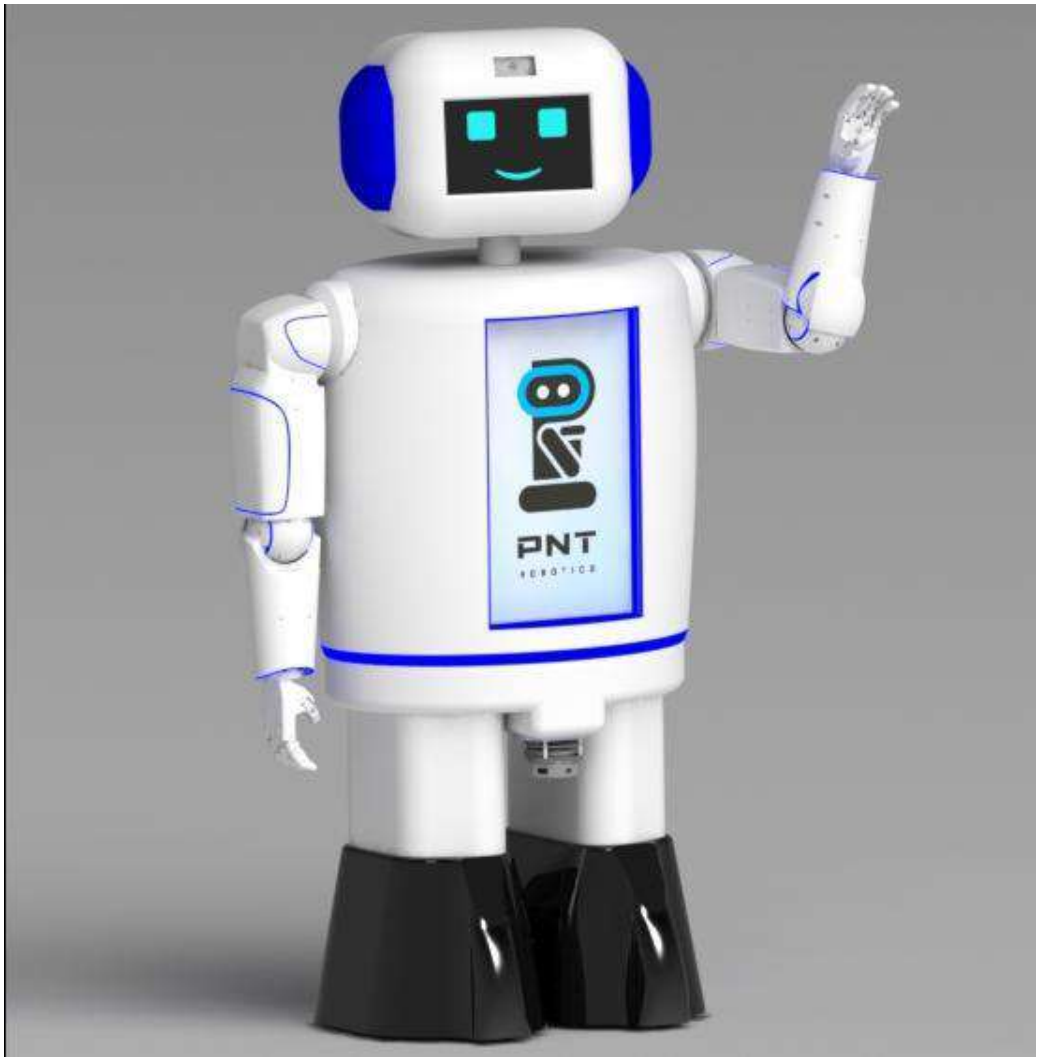

CORO-BOT

Second Project

ADO Robot

ADO is an Artificial Intelligence based fully Automated Interactive Humanoid Robot with human like emotions and gestures. This robot can give presentations, can do autonomous navigation to reach destinations by avoiding obstacles and guide people at hospitals, malls, airports etc. Also act as a kiosk, detect faces, can memorize people, display ads and generate proper analytics of the ads displayed. Mostly used to reduce language barriers in

country like India. Large screen located on its body can attract people and hence can used for advertisement purpose too.



2. HSS Windup Generators

Founder : Mr. Haresh Sandha

Startup in early stage. Working on Idea of Power Generation from Energy stored in spring. 4 Interns working on design and modelling stage. Prototype of scale down device is ready.

3. NAPFT

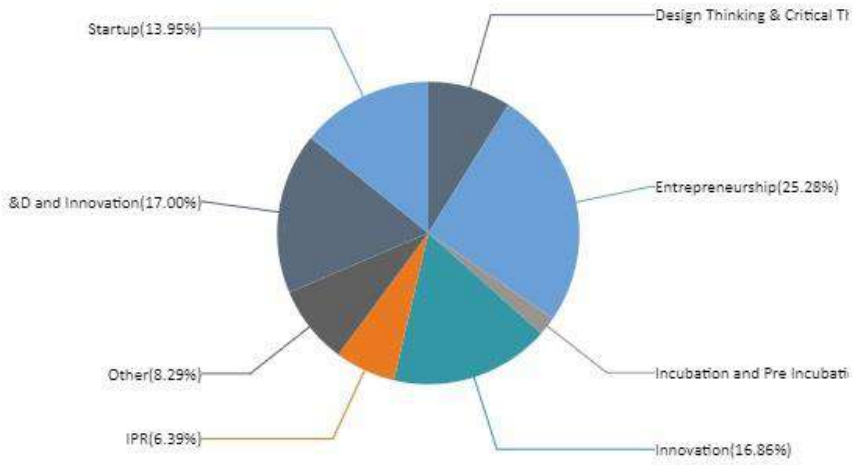
Founder : Mr. Shrajal R. Shrivastav

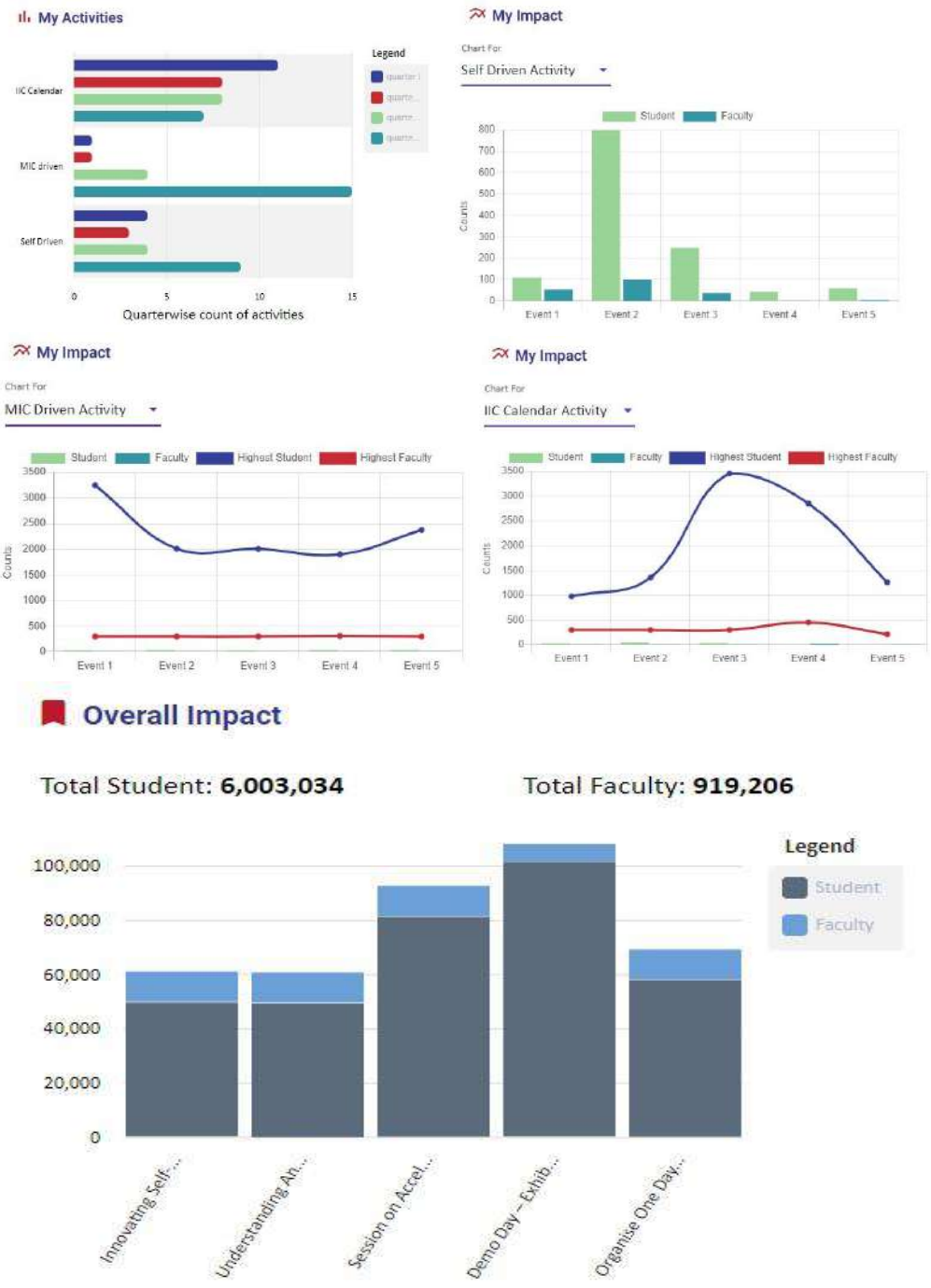
Application for Incubation has been received from a new early stage startup Entrepreneur. A social NFT platform where people can create, buy and sell NFT.

4. **Entrepreneurship Club:** The entrepreneurship club aims at offering a conduit by which students can access entrepreneurial resources, network with community entrepreneurs and share their innovative ideas. The club is dedicated to increasing the knowledge regarding new and small businesses.

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

- Number and Different types of I&E and IPR activities Conducted: **38**
- No. of student's & faculty ideas generated: **10**
- No. of student's & faculty Innovation/prototypes developed: **12**
- No. of IPs generated, published and granted: **123**
- No. of Student & Faculty Start-ups/Ventures established: **3**
- Amount spent on promotion and awareness generation on Innovation Entrepreneurship in the campus = **Rs.2,50,000/**
- Amount grant or fund supported to student & Faculty lead Innovations, start-ups and IPR: **Rs.1,50,000/-**
- No. of Technology Transfer and Commercialization happened: **01**





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

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

CORO-BOT

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store various things. The censors in dispensers ensure that liquids or sanitizers flow quickly when we hold our hand below it and flow is cut-off when the hand/glass is removed from underneath the dispensing area. This not only provides ease but also ensures minimal wastage. Robot has illumination facility using LED lights which makes sure that it can be easily used during night as well. It also has small PC like set-up at top for computer work and entertainment.

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

Sr.No	Name.	Company Name
1.	Mr. Pratik Tirodkar	PNT Robotics

I. List if any break through Innovations / Technology Developed at the institute (2-3 technology with 2-3 lines about technology and innovation

1. Restoration of Conventional Ceiling fan into Power Efficient BLDC Fan:

This innovation aims to convert the induction motor of the conventional ceiling fan to a BLDC motor. BLDC (Brushless direct current motor) are fast replacing conventional DC motors because of their excellent characteristics, higher efficiency and less wear and tear etc. Its describes a method of using Brushless DC Motor to reduce the power consumption of the ceiling fans by more than 60% without sacrificing on the performance of ceiling fan and reduce the E-waste produced by non- working induction fan, This analysis is specifically related to low-power fan applications. Based on the experimental results it is noticed that BLDC motors used in ceiling fans can increase efficiency and bring energy saving up to 65% compared to traditional single-phase induction motors. The main advantages of this project are reducing power consumption of a fan, running costs, and reducing e-waste which is formed due to non-working induction fan.

2. Design and Fabrication of Bio Methane Production Using Kitchen Waste

To work on design changes and fabrication of low cost and more efficient biogas plant using kitchen waste and garden waste. Following points are to be worked during the project: Quality gas production, Leakage of gas, Increment in efficiency, Cost reduction, large scope of research

3. Design & Fabrication of Vertical-Axis Wind

To utilize the available wind resources and to reduce the usage of non-renewable energy resources. Testing of wind turbine to check for actual working for taking readings. Learn about wind energy and different ways of convert it to a useful power. Learn the different between Vertical Axis Wind Turbines (VAWT) & Horizontal Axis Wind Turbines (HAWT).

4. Blind-Spot Monitoring System using LIDAR,

Principal objective of the invention is to accurately detect any vehicle in the blind spot zone and minimize the chances of collision by alerting the driver well in advance. The invention is wireless, cost-effective, versatile and a retrofit table kit, which can be easily mounted on any vehicle.

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

- **ARIIA** – Participated.
- **NISP Adoption status** – NISP Adaptation is in process.
- **Toykathon:** Students are participated in Hackathon and secured 1st rank in Physical edition, faculties had also plays role for judging task.

Anushka Kamble won TOYCATHON 2022, Physical Edition an initiative under the leadership of Hon. Prime Minister of India Narendra Modi Ji, with a vision to manufacture toys in India

- **Hackathon:** Two groups are participated in Smart India Hackathon, and both the groups secured 1st rank in the SIH.

  Students from our college secured first position in national level competition Smart India Hackathon (SIH) Hardware Edition. On a problem statement suggested by Cyber Crime Cell, Special Unit, Delhi Police. Around 30,000 teams registered for Smart India Hackathon 2022, out of which around 2000 teams got selected for Grand Final at National level held at 75 nodal centers.

  1. Pranjal Mhatre
  2. Vaishnav Kumbhar
  3. Rohan Dandekr
  4. Roushan Sharma
  5. Saket Pathak
  6. Chaitali Patel

From cherry picking a problem statement out of 456 PS to competing with 15000+ students across our nation, *Students from our college has secured first position in national level hackathon namely Smart India Hackathon Software Edition (SIH)* On a problem statement suggested by DRDO.

1. Akash Joshi
2. Sachin Rathod
3. Pratik Patil
4. Vinit Juikar
5. Chaitali Padalkar
6. Aarushi Jadhav

K. Detail of Social Media & Connections of IIC institute

Facebook Page:

https://www.facebook.com/bvcoenmedu/

Friends: 640

Instagram:

https://www.instagram.com/bvcoenm/

Followers: 684

Twitter:

https://twitter.com/BVCOE_Official

Followers: 138

Linkdin:

https://www.linkedin.com/school/bharati-vidyapeeth-college-of-engineering-navi-mumbai/

Followers: 3181

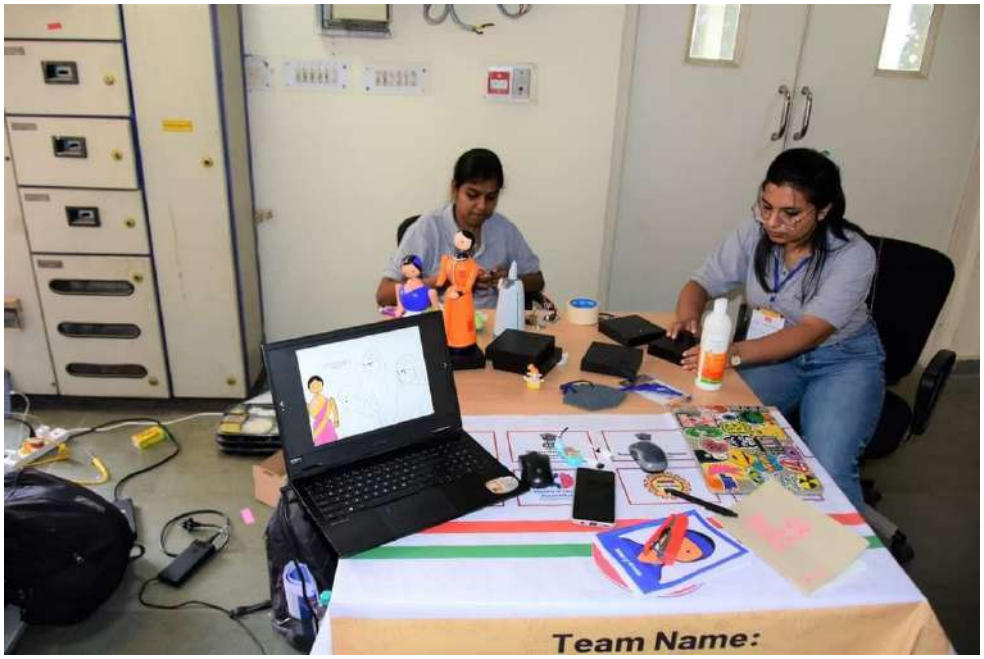
Youtube:

https://www.youtube.com/channel/UCpZxr6yPLrVDImzcKRgIpfw

Subscriber: 1.17K

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

M. Images


Team Name:


meet.google.com/wwj-ondc-efx
MADHURA PARMAJ
Dipak Raskar
Shivam Sandeep Khule
83 Ajinkya Pa...
avishcold
Purva Mankes...
Shashikant Ja...
Ashutosh Singh
Arun Koli (Aru...
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Vaishnavi Idal...
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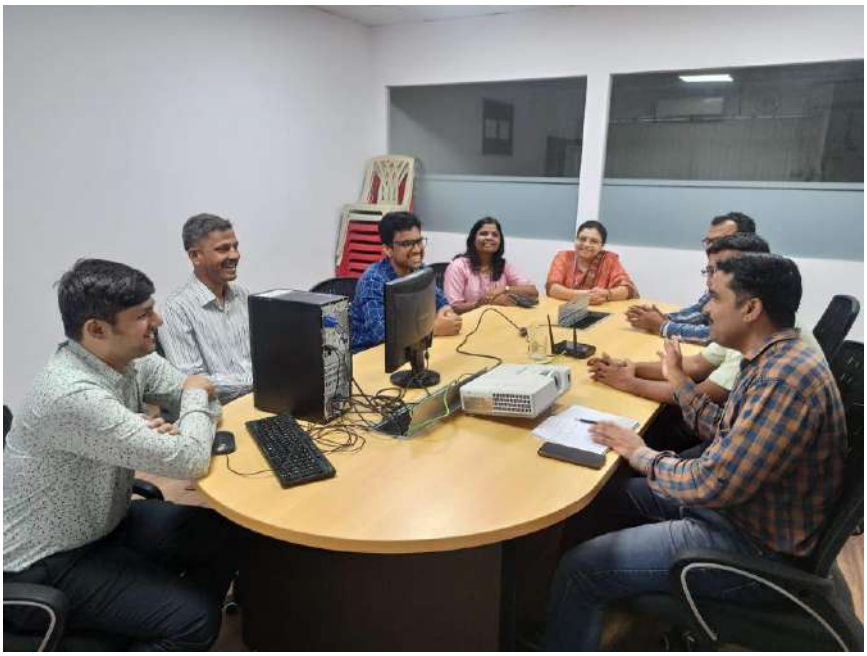

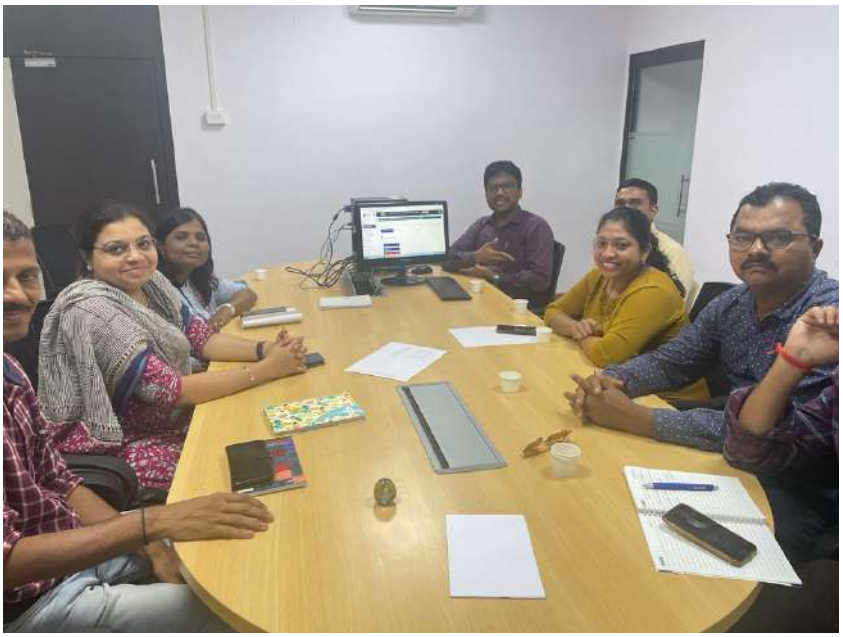

BHARATI VIDYAPEETH
COLLEGE OF ENGINEERING
Navi Mumbai-400614

EXPERT TALK

INSTITUTION'S INNOVATION COUNCIL (Ministry of HRD Initiative)

-: Topic :-

Motivational Story by Successful Innovators

-: Speaker :-

Mr. Prashant Gade

CEO & Founder of INALI Foundation, Pune

Date : 15th July 2022 (Friday)

Time : 12:45 PM to 01:45 PM

Venue – Seminar Hall (219)

-: Organised by :-

Department of Electronics and Telecommunication Engineering

in collaboration with

Institution's Innovation Council (IIC)

Coordinator	HOD	Principal
Prof. D. S. Raskar	Dr. P. K. Kharade	Dr. S. D. Jadhav

N. Contact

Name: Dr. Sandhya Jadhav

Email: principal.bvcoenm@bharatividyapeeth.edu

Contact: 8898698720