Institution's Innovation Council (IIC) 6.0

Don Bosco College of Engineering

Annual Report 2023-24

A: About IIC Institute:

IIC-DBCE- Institutions Innovation Council of Don Bosco College of Engineering (IC201810173)

VISION:

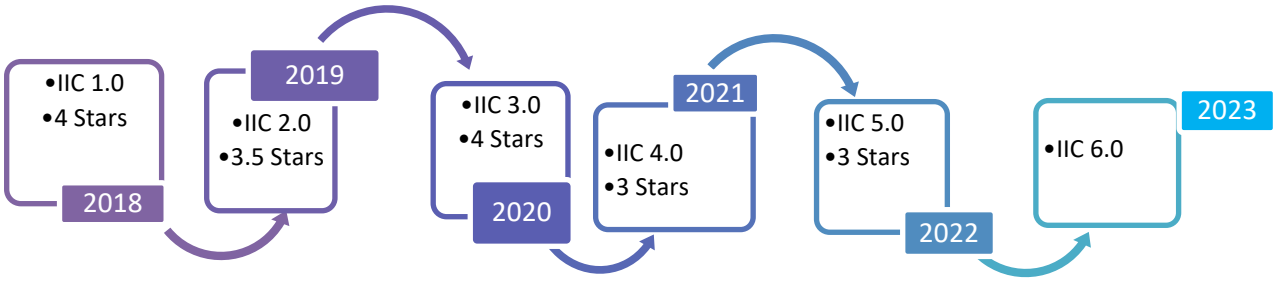
To promote innovation, incubation, and entrepreneurial environment, by offering Students, Faculty, and Society opportunities to renovate their business ideas to prototype to product

MISSION:

- To create a vibrant local ecosystem to incubate and support innovative ideas
- To create entrepreneurship opportunities for Students, Faculty, and Society
- To nurture the start-ups by providing them necessary support
- To provide support to commercialize innovative and sustainable ideas
- To prepare institute for Atal Ranking of Institutions on Innovation Achievements Framework

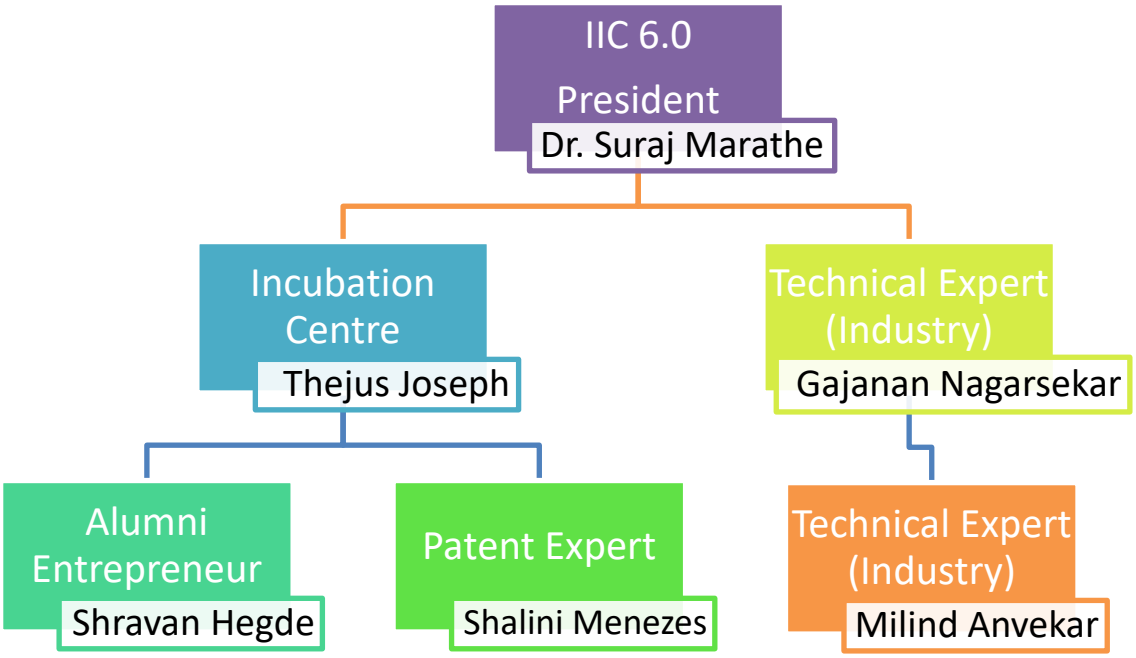
Journey of IIC at the Institute:

IIC 1.0 started in the year 2018 under the Presidentship of Dr. Varsha Turkar. In 2019, Dr. Neena Panandikar became the President of IIC 2.0. In 2020, IIC 3.0 was headed by Dr. Varsha Turkar as its President. IIC 4.0 was headed by Dr.Suraj Marathe as its President. IIC 5.0 was headed by Dr.Suraj Marathe as its President. At present, Dr.Suraj Marathe as the President of IIC 6.0.



Diversified representation in IIC at Institute from Industry, Departments and Units:

IIC 6.0 has representatives from varied sections such as Incubation Centre, Industry, Advocate and Alumni Entrepreneur besides Faculty and Students of Don Bosco College of Engineering.



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

- President
  - Constitute the IIC council and appoint its members in consultation with the Principal
  - Responsible for ensuring effective Quarterly Council Meeting
  - Leads the IIC Council
  - Responsible for organizing activities as per the IIC calendar
  - Calls the meetings as and when required
  - Assign tasks to IIC committee members
  - Help IIC coordinators to find resource persons for various events
  - Keep a track of uploading reports on IIC portal
  - Main point of contact with MHRD Innovation Cell
  - Communicate with MHRD Innovation Cell and responsible to ensure decent performance of IIC
  - Coordinate with MHRD innovation cell
  - Responsible for all the IIC activities in the institute
  - Responsible to self-driven activities
  - Ensure the effective implementation of IIC activities with the help of Convenor
  - Responsible for submitting the monthly progress/activity reports on the IIC portal
  - Guides Convenor to submit the reports on IIC portal

- Vice President
    - Handles all the responsibilities in the absence of IIC President

- Convener
    - Work in close coordination with IIC president
    - Provide help wherever required for smooth conduction of activities
    - Ensure the participation in the meeting
    - Prepare the meeting agenda prior to meeting with the inputs from all valuable council members and President
    - Send notice to all the members to inform about meeting
    - Invite external IIC committee members to attend the meeting
    - Present quarterly activities in quarterly council meeting
    - Upload the reports on the IIC portal
    - Ensure that the internal examination dates would not interfere with the IIC activities and coordinate with all departments to ensure the same
    - Collect the inputs from all the members of the council and institute's management at regular interval, especially external members for better planning of IIC activities and effective delivery of results

- Coordinators
    - Work in close coordination with President and Convener
    - Work as per the responsibilities assigned in council meeting
    - Complete the task assigned to them by the IIC President
    - Submit the report to the convenor before the deadline

C. Tabular representation of Resource strength of the IIC institution:

Total No. of IIC Members	Total No. of IAs	Total No. of faculty Mentors From Portal	Pre-Incubation Units, If any	Incubation Units, If any	IP Facilitation Unit, If any
34	05	05	01	01	Yes Coordinator: Dr. Gaurang Patkar

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

https://www.fiire.org.in/

https://goastateinnovationcouncil.com/

E. Achievements:

Sr. No	Title	Total
1	Number and different types of I&E and IPR activities conducted	14
2	No. of Students and Faculty ideas generated	08
3	No. of Students and Faculty Innovation/ Prototypes developed	03
4	No. of IPs generated, Published and Granted	03
5	No. of Student and Faculty Start-ups / Ventures established	03
6	Amount spent on promotion and awareness generation on innovation Entrepreneurship in the campus	5,00,000
7	Amount grant or fund supported to student and Faculty lead Innovations, Start-ups and IPR	2,50,000
8	No. of Technology Transfer and Commercialisation happened	01

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

1. Final year project (2023-2024) titled Optimizing Performance of Brain Computer Interface for Gaming using Hybrid Machine Learning Techniques received funding of Rs.50,000/- from Directorate of Science and Technology, Goa under the guidance of Dr. Shreyas Simu and Dr.Gaurang Patkar

2. Final year project (2023-2024) titled Design and Development of a Robotic Knee Exoskeleton for Rehabilitation and Mobility Assistance based on Motion Intention Sensors. received funding of Rs.1,10,000/- from Directorate of Science and Technology, Goa under the guidance of Dr. Suraj Marathe.

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

1. NIDHI-PRAYAS Cohort 2 startup Neural Kissan (10 lakhs)

Mr.Rane, Mr.Rhys Rodrigues, Mr.Kapil Patil, and Mr.Pranav Naik

--3rd place at the BITS Pilani Ideathon, organized by the BITS BioCyTIH Foundation.

2. In agriculture, drones have many applications, including precision farming, monitoring crop variability and even harvesting coconuts. Manual coconut harvesting is a dangerous and labor-intensive task, with a high risk of injury to the climbers. Furthermore, there is a shortage of skilled coconut tree climbers, making it challenging to harvest coconuts.

Our project aim is develop Quadcopter with robotic arm to harvest coconut

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

Sr. No	Name of Startup/ Ventures	Type of Startup	Name of Faculty/ Student
1	eDOT Solutions	Cyber Security	Jason Gomes
2	Contrazy	Technology solutions	Shravan Hegde
3	Repulse Fitness Studio	Fitness	Gauresh Gawas
4	Spyke Social	Frontend wizad	Eeshan Keni
5	Tersus Energy	Solar cells	Leroy Lobo
6	Deviant Strokes	Web development	Pritiva D'Silva
7	Princeston Colaco Music	Music Composer	Princeston Colaco
8	Shetgaonkar Constructions	Construction	Gaurav Shetgaonkar
9	Vivek Naik Constructions	Construction	Vivek Naik
10	Naik Real Estate Developers	Real Estate and Construction	Anant Naik
11	WoodSAP	Furniture	Mr. Olencio Zuzarte

12	K2 Construction and Developers	Construction	Kish Rego
13	Satpurush Automobilies	YouTube Channel Ruturaj97	Ruturaj Phadte
14	Ratan 3D World	3D components Supplier	Siddhant Panjikar
15	DJN Creation	AutoCAD, Anysis	Divyajeet Naik
16	Neural Kissan	To revolutionize plan cultivation through neural network and AI	Sai Rane, Rhys Rodrigues Kapil Patil Pranav Naik

I. List if any break through Innovations / Technology Developed at the Institute:

1. Asier Solutions (OPC) Pvt. Ltd.- Developing educational stem diy kits
2. GreenWaves- Upcycling waste
3. BALACHANDRAN S ELAYATH- A venting system through the heavy vehicle which comprises of our specially designed Multicontour Duct and a diffuser which helps to reduce the pressure drag formed infront of the heavy vehicle and aids regeneration of electricity.
4. Ayush M. Panara - Use of superfoods and home science to develop a cost effective food fortification technique for Indian Population
5. Intellilogos consulting LLP- Smart paper clip for tracking and securing paper documents
6. SrishtiRobotics Technologies Pvt. - V-fill iot based water level controller
7. Goaah Ventures LLP- The non-alcoholic beverage space which is on the cusp of a revolution in India.
8. Greenpod Labs Private Limited - biotech-based packaging sachet that can extend the shelf life of fruits and vegetables.
9. Human Biogenesis - Care diagnostic kit (SD Kit) will detect the presence of semen in the vagina to help female customers decide whether to take morning after pill or not.
10. Funminds Learning Tech Private Limited - Introducing robotics to children through books and diy kits
11. Med interventions & Beyond Pvt Ltd - Design and development of innovative PPE
12. LaFabrica Craft Private Limited - Heavy duty, reusable/recyclable and 100% biodegradable paper bags which can carry wet items as well
13. Srishti Lifescience Private Limited - At Srishti Lifescience Private Limited, we provide botanical herbs-enhanced water in sustainable glass packaging (100% implemented circular economy of packaging) in a commercially viable way, with a system of zero water wastage during purification and zero single-use plastic in packaging and zero logistics carbon footprint based supply chain system.
14. Mushroom Connect- mushroom seeds/spawns and grow-at-home kits
15. Narla zest vida Pvt Ltd- artisanal cold-pressed virgin coconut oil and a range of coconut and spice products.
16. Innovantix Systems Pvt. Ltd.- Building a prototype for an affordable electric paramotor
17. Rekise Marine Pvt. Ltd.- Building an unmanned marine vessel to carry out surveys
18. Dharaksha Ecosolutions - Developed a process to convert the crop stubble waste into useful biotechnology.
19. Dr Naik's Theranostics Pvt ltd- Mrsa identification using their catalase activity with a sensor that can record changes in oxygen evolution based electrochemical activity.

20. Sigma Innovations - Antimicrobial polymeric material that can be 3d printed as well as used in conventional manufacturing of assistive devices.
21. Design and development of Solar power grass cutter.

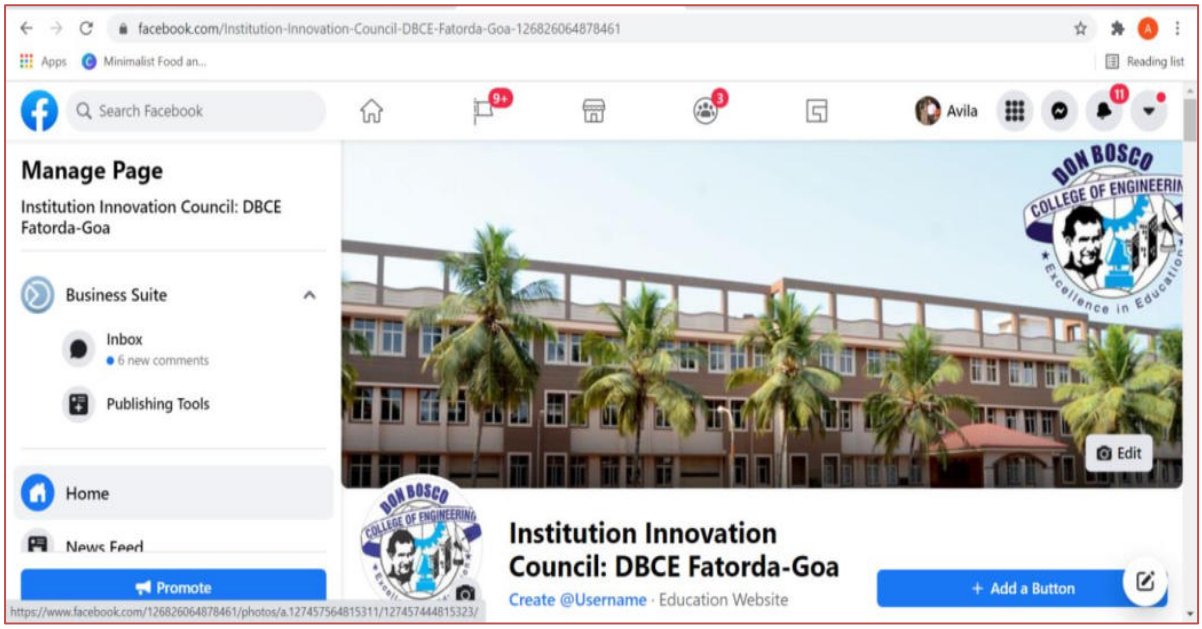
J. Participation of IIC-institute in various programs of Central and Stage Govt. Highlighting especially for the schemes or programs:

- NISP Adoption status - The National Innovation and Start-up Policy (NISP) coordinator of Don Bosco College of Engineering, Goa is Dr. Gaurang S Patkar. Dr.Patkar has successfully completed first training and now is in process of forming IPR Cell and NISP policy for the college. This policy intends to guide HEIs for promoting students' driven innovations & start-ups and to engage the students and faculty in innovation and start up activities in campus.NISP policy is created and updated on NISP portal also.
- Smart India Hackathon – Smart India Hackathon 2023 is a nationwide initiative to provide students a platform to solve some of the pressing problems we face in our daily lives, and thus inculcate a culture of product innovation and a mindset of problem solving**.** In SIH 2023, the students would have the opportunity to work on challenges faced within various Ministries, Departments, Industries, PSUs and NGOs to create world class solutions for some of the top organizations including industries in the world, thus helping the Private sector hire the best minds from across the nation.
  Don Bosco College of Engineering organised an Internal Institute Level Hackathon to shortlist the teams to participate in the national level competition. The hackathon was open to students of all years and branches.
  Smart India Hackathon 2024 is currently in process and we are following the deadlines given as per SIH 2024.


K. Detail of Social Media & Connections of IIC institute:

IIC is on Facebook :

https://www.facebook.com/Institution-Innovation-Council-DBCE-Fatorda-Goa-126826064878461



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

The Institute Innovation Council (IIC) of Don Bosco College of Engineering promotes innovations eco- system in the campus by conducting various innovation and entrepreneurship related activities prescribed by Central MIC. IIC- DBCE always works hard to encourage, inspire and nurture young students by supporting them to work with new ideas and transform them into prototypes and get close to the real world of technology.

As a president, of IIC- DBCE, I must say that MIC, provided a platform for scouting ideas and pre-incubation of ideas. Also developed better cognitive ability for technology Students.

Dr Suraj Ravindra Marathe , Associate Professor ,IIC 6.0-DBCE President

The Institute Innovation Council of Don Bosco College of Engineering has helped to create awareness, educate, nurture and inculcate a culture of innovation, and enable our understudies to generate new ideas and become more innovative, dynamic and get close to the real world of expertise. I must say that IIC activities will develop better Cognitive Ability for Technology Students.


-Dr. Gaurang Patkar, H.O.D. Computer Engineering

The initiative through the IIC activities and the Innovation cell activities is helping build a strong entrepreneurial and startup culture within the student community of the college. The exposure to the various facets including problem solving initiatives which could be commercialised, understanding the need to build IP based solutions, importance of working in teams, asking for help and support and looking at problems as opportunities is helping build the ground for sustainable startup initiatives in the near future. The willingness to take risk and fail, an important ingredient in innovation is also getting engrained amongst the student community. Great initiative which will help the nation in the long run.


-D. S Prashant

IIC at Don Bosco is doing a great job of fostering a culture of innovation among the students and young entrepreneurs. The support they receive from IIC allows them to dream big and pursue their passion of solving key problems using technology and innovation.


-Rohin Parkar, CEO, Co-Founder, Spintly

The main objective of Institution Innovation councils at institutes is to drive innovation and start-up ecosystem at campus by connecting with industry peers. To achieve this objective, the role of faculty being a member of IIC is very important. They play the role of a mentor or guide for young minds in their search of innovation and entrepreneurship.

We at Don Bosco College of Engineering, through its IIC, have been organising various webinars to educate the students about Innovation and start-up ecosystem. The faculty members have undergone series of lectures via online mode conducted by MoE's Innovation cell to drive the mission forward.


-Satyesh Kakodkar, Assistant Professor -Civil, Don Bosco College of Engineering, Innovation Ambassador

IIC at DBCE has been a great Avenue for students to leverage their technical skills and strategize their business ideas from ideation to MVP.

In the recent past there has been a decent involvement from students who have been encouraged and mentored by the faculty and associations like FIRE.

I wish the entire IIC team all the energy and good luck for their future plans for such encouraging work.


-Gajanan Nagarsekar, Healthcare Technology

IIC DBCE is doing a tremendous job to create a culture of innovation among engineering students. An initiative under IIC provides a platform to become an innovator.


Mr. Thejus Joseph, Interim-CEO-FiiRE

M. Images:

Here are a few poster images of the various events held by the IIC 6.0 at Don Bosco College of Engineering.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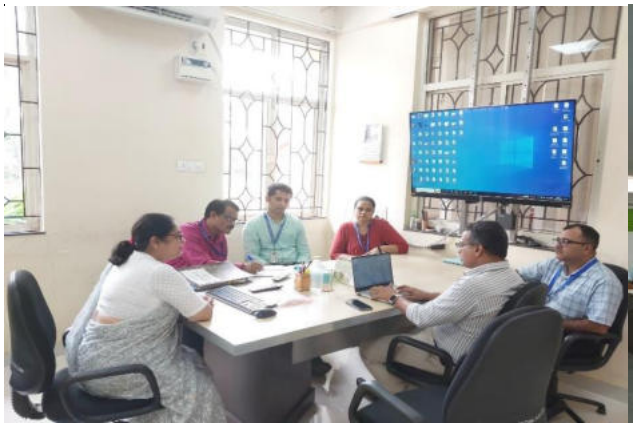


INNOVATION
IS OF COURSE, NEVER ENDING


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Google

IIC Calendar Activities Conducted: 30

MIC Driven Activities Conducted: 07

Self-Driven Activities Conducted: 06

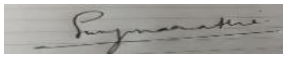
Celebration Day Activities Conducted: 16

Total Activities Conducted:59

N. Contact:

Dr.Neena Panadikar
The Principal,
Don Bosco College of Engineering
Fatorda- Margao
Goa-403602

Compiled By:
Michelle Araujo e Viegas
Asst. Prof. and IIC 6.0 Convener



Dr. Suraj Marathe
Associate Prof. and IIC 6.0 President

Dr. Gaurang Patkar
Prof. and IIC 6.0 Vice President