Institution's Innovation Council (IIC) 4.0

Don Bosco College of Engineering

Annual Report 2021-22



A: About IIC Institute:

Institution Innovation Council of Don Bosco College of Engineering

VISION:

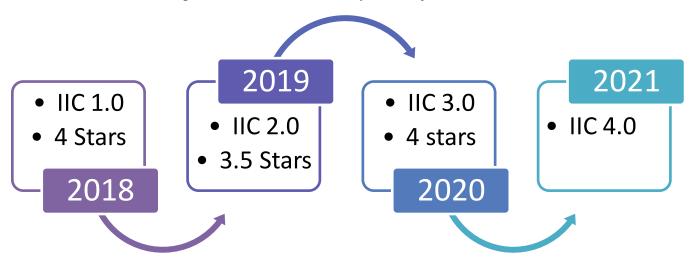
To promote innovation, incubation, and entrepreneurial environment, by offering Students, Faculty, and Society opportunities to renovate their business ideas to prototype to product

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

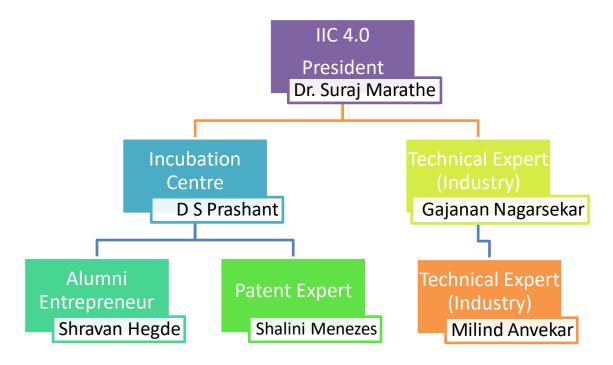
Journey of IIC at the Institute:

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 is headed by Dr. Varsha Turkar as its President. At present, IIC 4.0 is headed by Dr. Suraj Marathe as its President.



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

IIC 4.0 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
- o Responsible for ensuring effective Quarterly Council Meeting
- o Leads the IIC Council
- o Responsible for organizing activities as per the IIC calendar
- o Calls the meetings as and when required
- o 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
- o Main point of contact with MHRD Innovation Cell
- Communicate with MHRD Innovation Cell and responsible to ensure decent performance of IIC
- o Coordinate with MHRD innovation cell
- o Responsible for all the IIC activities in the institute
- o Responsible to self-driven activities
- o Ensure the effective implementation of IIC activities with the help of Convenor
- o Responsible for submitting the monthly progress/activity reports on the IIC portal
- o Guides Convenor to submit the reports on IIC portal

Vice President

o Handles all the responsibilities in the absence of IIC President

Convener

- Work in close coordination with IIC president
- o Provide help wherever required for smooth conduction of activities
- o 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
- o Invite external IIC committee members to attend the meeting
- o Present quarterly activities in quarterly council meeting
- o 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
- o Work as per the responsibilities assigned in council meeting
- o Complete the task assigned to them by the IIC President
- o Submit the report to the convenor before the deadline

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

Total No. of	Total	Total No. of	Pre-	Incubation	IP Facilitation Unit,
IIC Members	No. of	faculty Mentors	Incubation	Units, If	If any
	IAs	From Portal	Units, If any	any	
48	05	02		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/

E. Achievements:

Sr. No	Title	Total
1	Number and different types of I&E and IPR activities conducted	10
2	No. of Students and Faculty ideas generated	61
3	No. of Students and Faculty Innovation/ Prototypes developed	40
4	No. of IPs generated, Published and Granted	03
5	No. of Student and Faculty Start-ups / Ventures established	11
6	Amount spent on promotion and awareness generation on innovation Entrepreneurship in the campus	11000
7	Amount grant or fund supported to student and Faculty lead Innovations, Start-ups and IPR	7,60000
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. Dr. Vivek Jog, IIC member, Associate Professor in Computer Engineering and his team received Rs. 40000/ From Goa State Innovation Council as a seed funding amount for development of proof of concept of projects title Smart Agriculture using & Gate automation.
- 2. Prof. Satyesh Kakodkar, Assistant Professor in Civil Engineering successfully completed Innovation Ambassador Training conducted by MoE's Innovation Cell & AICTE, New Delhi. Recently Prof. Kakodkar has undergone Innovation Ambassador training (Advanced Level) conducted by MoE's Innovation Cell & AICTE during the period from 30th June 30th July 2021 in online mode. Mr. Kakodkar and his team received Rs. 20000/ From Goa State Innovation Council as a seed funding amount for development of proof of concept of projects title using ceramic waste in concrete.
- 3. Prof. Satyesh Kakodkar, Assistant Professor in Civil Engineering was appointed as Coordinator for India International Science Festival Organised by Ministry of Earth Science, Govt. of India.
- 4. Dr. Suraj Marathe, IIC President, Associate Professor in Mechanical Engineering successfully completed Innovation Ambassador Training conducted by MoE's Innovation Cell & AICTE, New Delhi. Dr. Marathe and his team received Rs. 40000/ From Goa State Innovation Council

as a seed funding amount for development of proof of concept of projects title Squat Analyser in powerlifting sport and title Design and fabrication of Exoskeleton for assistance in walking.

5. Prof. Sanjeel Naik, Assistant Professor in Mechanical Engineering nominated for Innovation Ambassador Training programme organised by MoE's Innovation Cell & AICTE, New Delhi.

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

1) Business Idea competition

1st place

Team Name: 'Bits & Bytes'

Idea Title: E-Kart

Description: Designing a smart E kart

Members:

Sr No	Members
1	Pranav Naik
2	Jovan Pinto
3	Yagnesh karwarkar
4	Rhys Rodrigues

2nd Place

Team Name: 'Tech Pirates'

Idea Title: "

Description: Ecommerce website

Members:

Sr No	Members
1	Sai Rane
2	Nikhil rav
3	Vedant Gad
4	Ved Kerkar

3rd Place

Team Name: 'Joseph-Mathias' Idea Title: 'Library Cafe'

Description: Smart Library Café for public

Members:

Sr No	Members
1	Joseph Makki Mane
2	Mathias Fernandes

2) POC competition

1st Place

Team Name: 'Analysis Aces' Idea Title: Maggi case study

Description: Market study of the Product

Members:

Sr No	Members
1	Nicole Fernandes
2	Nitya Pai
3	Rafath Umaimath

2nd Place

Team Name: 'Limitless' Idea Title: PaperBoat

Description: Market study of the Product

Members:

Sr No	Members
1	Rutviz Vaze
2	Shvesh Naik
3	Vibhav Dessai

3rd Place

Team Name: 'MKS' Idea Title: Colgate

Description: Market study of the Product

Members:

Sr No	Members
1	Marisa Barreto
2	Kezia Fernandes
3	Sejal Karapurkar

3) Smart India Hackathon 2022

Two team were shortlisted for SIH 2022 in software category.

Team Name: 'Syntax Terminators'

Idea Title: Webapp to help self-help group

Description: The idea proposed is to develop ecommerce website for self-help group

Members:

Sr.No.	Name
1	Nitya Pai
2	Sayyed Tabib Ashraf
3	Nishil Hoogar
4	Nicole Fernandes
5	Shanon DSilva
6	Rafat Umaimat

Team Name: 'Green Ribbon Army'

Idea Title: Mental health and wellbeing assessment and tracking solution among

children

Members:

Sr.No.	Name
1	Oysturn Vas
2	Reev DSouza
3	Yash Karapurkar
4	Druvi Tendulkar
5	Jaysel Silveria
6	Carson Rodrigues

4) Goa Police Hackathon 2022

Team Name: 'Morse Coders'

Idea Title: Decoding of Virtual Numbers

Description: The idea proposed is to decode and find the virtual number carrier

Members:

Sr.No.	Name
1	Pratham Shah
2	Ivon Azim









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

Sr.	Name of Startup/	Type of Startup	Name of Faculty/ Student
No	Ventures		
1	eDOT Solutions	Cyber Security	Jason Gomes
2	Contractzy	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	Construction	Gaurav Shetgaonkar
	Constructions		
9	Vivek Naik Constructions	Construction	Vivek Naik
10	Naik Real Estate	Real Estate and	Anant Naik
	Developers	Construction	
11	WoodSAP	Furniture	Mr. Olencio Zuzarte
12	K2 Construction and	Construction	Kish Rego
	Developers		
13	Satpurush Automobilies	YouTube Channel	Ruturaj Phadte
		Ruturaj97	
14	Ratan 3D World	3D components	Siddhant Panjikar
		Supplier	
15	DJN Creation	AutoCAD, Anysis	Divyajeet 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 div 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.

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

- ARIIA The institute has participated in ARIIA 2022. The review and evaluation is still in process.
- 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 2022 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 2022, 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.

The Internal Institute Level Hackathon was held on 23rd March 2022, 2:00 PM in the Seminar Hall 1 (First Floor) at Don Bosco College of Engineering, Fatorda. A total of 19 teams participated in the event. The teams comprised of students from Mechanical, Computers, Electronics & Telecommunication and Civil Engineering. The jury members for the event were Mr. Mangirish Salelkar, Founder President-Goa Technology Association and CEO-UMANG, Mr. Thejus Joseph, COO- FiiRE, Mr. Sachin Kale, Founder Stanza Infotech and SK Group and Mr. Sachin Turi, Assistant Professor from Dept. of Mechanical Engineering, DBCE. The jury panel was very much impressed with the innovative ideas presented by the students. The judges provided valuable inputs and feedback to the student participants. The event was also graced by the presence of Dr. Neena S.P. Panandikar, Principal, DBCE, Dr. Suraj Marathe, President, IIC, Dr Shreyas

Simu, Assistant TPO, DBCE ,Dr Amrita Naik , Assistant Professor from Dept. of Computer Engineering, DBCE Goa and Mr Sudip Faldesai, Project officer Goa State Innovation Council who motivated all the participating teams and gave valuable suggestions.

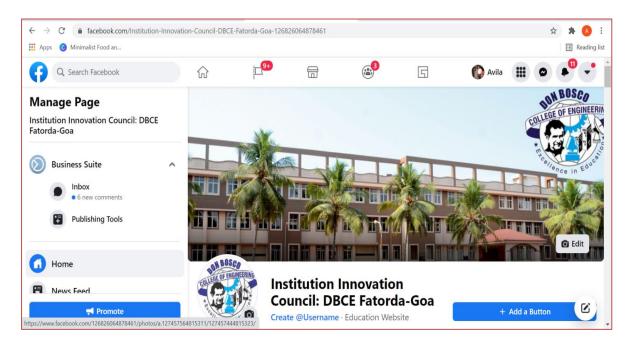
The following 10 teams were shortlisted: Solutionism at its finest, Green Ribbon Army, Team Apogee, Team Aether, The MVP's, Team Eagle, Void Mains, Brain Drain, Dynamites and Grey Space. The following 5 teams were placed in waitlist category: Mind Plug, Syntax Terminators, Abyuday, Unknown Variables and Team Explicit.

The event was organized by Mr. Swapnil Ramani, Assistant Professor from Dept. of Mechanical Engineering, DBCE Goa & SPOC-SIH 2022 and Mr. Selvyn Fernandes, Assistant Professor from Dept. of ETC Engineering & Co-Ordinator-Internal Hackathon SIH 2022.

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

IIC is on Facebook and the Total Page Followers are 336:

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 4.0-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, CEO, FiiRE

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, COO-FiiRE

M. Images:

Here are a few poster images of the various events held by the IIC 4.0 at Don Bosco College of Engineering.







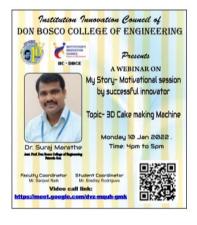


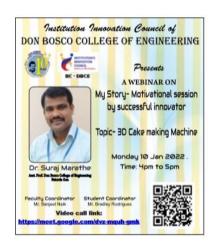
































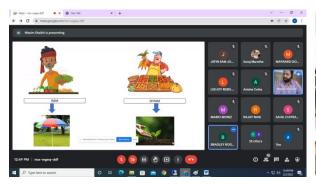




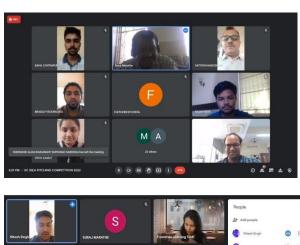
























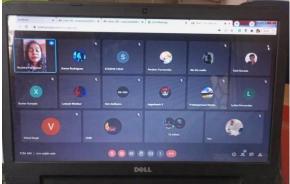
























IIC Calendar Activities Conducted: 28

MIC Driven Activities Conducted: 5

Self-Driven Activities Conducted: 4

Celebration Day Activities Conducted: 5

Total Activities Conducted: 42

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 4.0 Convener

Dr. Gaurang Patkar Associate Prof. and IIC 4.0 Vice President Dr. Suraj Marathe Associate Prof. and IIC 4.0 President