Annual Report 2021-22
Institution's Innovation Council (IIC)
Mar Baselios College of Engineering and Technology (Autonomous)
Mar Ivanios Vidyanagar, Trivandrum, Kerala

A. About IIC MBCET

Ministry of Human Resource Development (MHRD), Govt. of India has established 'MHRD's Innovation Cell (MIC)' to systematically foster the culture of Innovation amongst all Higher Education Institutions (HEIs). The primary mandate of MIC is to encourage, inspire and nurture young students by supporting them to work with new ideas and transform them into prototypes.

Major focus

- To create a vibrant local innovation ecosystem.
- Start-up supporting Mechanism in HEIs.
- Prepare institute for Atal Ranking of Institutions on Innovation Achievements Framework.
- Establish Function Ecosystem for Scouting Ideas and Pre-incubation of Ideas.
- Develop better Cognitive Ability for Technology Students

Vision

To become a Centre of Excellence in Innovation and Entrepreneurship.

Mission

1. To develop and encourage the spirit of innovation among students for handling socially relevant projects.
2. To spearhead the Institutional Innovation Rankings.
3. To kindle a Learner centered approach that focuses on entrepreneurial skill upgradation.
4. To enable an ecosystem that promote start-ups and entrepreneurial ventures of students, faculty and staff

IIC MBCET is actively involving in spreading the spirit of innovation and entrepreneurship in and out the campus by conducting various activities in domains like Innovation, Entrepreneurship and IPR, strictly adhering to the guidelines of MIC from the year 2018 and awarded with 4.5 star rating for the excellent performance in the academic year 2019-20and 4 star (the highest rating) in the academic year 2020-21.

In addition to all the activities, faculty members from MBCET have attended the Innovation Ambassador training (Foundation Level and Advanced Level), the students have participated in the National Innovation Contest, developing online repository, ATL linkage, Mentor Mentee Program and Smart India Hackathon.

The summary of activities conducted by the IIC MBCET during the academic year 2021-22 are listed below.

- IIC calendar Activities –   14
- MIC driven Activities   –   9
- Self-Driven Activities   –   14
- Celebration Day Activities -   5

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

Sl. No.	Name of the Member	Member Type (Teaching/ Non-teaching /External Expert)	Key Role/ Position assigned in IIC
1.	Dr. M. J. Jayashree	Teaching	President
2.	Mr. Arun J.S	Teaching	Vice President, Innovation Ambassador (Advanced Level)
3.	Mr. Jijo Jose	Teaching	Convener, Innovation Ambassador (Advanced Level)
4.	Ms. Lakshmy S.	Teaching	ARIIA and NIRF coordinator
5.	Mr. Sherry Varghese George	Teaching	Social Media coordinator, Innovation Ambassador
6.	Ms. Manju Ann Mathews	Teaching	IPR coordinator
7.	Ms. Kiran Baby	Teaching	Internship coordinator
8.	Mr. Bobin Saji George	Teaching	Startup coordinator
9.	Ms. Sherin Mathew	Teaching	Member, Innovation Ambassador
10	Mr. Shiras S N	Teaching	Member, Innovation Ambassador
11	Ms. Lani Rachel Mathew	Teaching	NISP Coordinator
12	Ms. Ansu Mathew	Teaching	Member, Innovation Ambassador

C. **Portfolio/graphical/Tabular representation of Resource strength (human capital and Physical capital) of the IIC institution**

Total No. of IIC Members	12
Total No. of IAs	Foundation Level – 4 Advanced Level – 2
Total No. of faculty Mentors	6
Pre-Incubation Units	
• Name of the Incubation centre • Thrust Area • No of Start-up Incubated • Faculty In charge	Dr. APJ Abdul Kalam Centre for Innovation, Incubation and Entrepreneurship (ACIIE) Electronics & IT 7 Mr. Arun J S, Assistant Professor

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

- **Name of the pre- incubation centre** - Dr. APJ Abdul Kalam Centre for Innovation, Incubation and Entrepreneurship (ACIIE)
- **Types of Services offered** –
  - Mentoring support
  - Seed grant assistance
  - Incubation facility

- **Facilities** –
  - IEDC Maker Space
  - Access to software and hardware Lab
  - High Speed Internet Connectivity
  - Access to Experts/Mentors/Advisory support
  - Access to Library and e Library of the institution
  - Access to Venture capital fund support
  - Co working space at Incubation Unit
  - Grand and Mini Challenges, Competitions etc
  - Idea/innovation validation consultation and expert service
  - PoC validation
  - Provide access to avail seed/grant support/ access to Govt. schemes available

- **Student Bodies/ Club –** **Innovation and Entrepreneurship Development Centre(IEDC) –** Established under Kerala Start-up Mission (KSUM)

E. Highlight Achievements (Narrative/Graphical/tabular representation)
  - Number and Different types of I&E and IPR activities Conducted

SL No	Activity Type	Title
1	IIC Calendar Activity	Pitching Event for Ideas Scouted & linkage with Innovation Ambassadors for mentorship support.
2	IIC Calendar Activity	My Story - Motivational Session by Successful Entrepreneur/Start-up founder.
3	IIC Calendar Activity	My Story - Motivational Session by Successful Innovators.
4	IIC Calendar Activity	Session on Problem Solving and Ideation Workshop
5	IIC Calendar Activity	Developing Online Repository of Ideas Developed and Way forward plan
6	Celebration Day Activity	National Education Day
7	Self Driven Activity	Start with Why?
8	Self Driven Activity	Visual Eyes- A creativity Conclave
9	Self Driven Activity	My Life Recipe
10	IIC Calendar Activity	Field/Exposure Visit to Pre-incubation units such as Fab lab, Makers Space, Design Centres, City MSME clusters, workshops etc.
11	IIC Calendar Activity	Workshop on Entrepreneurship Skill, Attitude and Behavior Developmen

12	MIC Driven Activity	Orientation Session on IIC4.0 & Features
13	MIC Driven Activity	E-Symposium on Building Innovation Ecosystem in Educational Institutions-Day 1 (11th Jan 2022)
14	MIC Driven Activity	E-Symposium on Building Innovation Ecosystem in Educational Institutions-Day 2 (12th Jan 2022)
15	Celebration Day	National Science Day
16	Celebration Day	National Pollution Control Day
17	Self Driven Activity	IPR CELL Inauguration
18	IIC Calendar Activity	Session on Achieving Problem-Solution Fit & Product-Market Fit
19	Self Driven Activity	SALT (Startup Awareness and Leadership Training)
20	Self Driven Activity	CHALLENGEX 3.0
21	IIC Calendar Activity	Workshop on Design Thinking, Critical thinking and Innovation Design
22	Self Driven Activity	HACKWEEK
23	IIC Calendar Activity	- Developing Online Repository of Business Plan/Prototypes Developed and Way forward plan
24	IIC Calendar Activity	Demo Day/Exhibition/Poster Presentation of Business Plan/Prototype developed & linkage with Innovation Ambassadors for mentorship support.
25	IIC Calendar Activity	Field/Exposure Visit to Incubation Unit/Patent Facilitation Centre/Technology Transfer Centre
26	IIC Calendar Activity	Workshop on Prototype/Process Design and Development - Prototyping
27	MIC Driven Activity	Refer Institutions & Earn Reward Points
28	MIC Driven Activity	Creation of e-Repository of e-Learning Sessions on I&E at IIC Institute
29	Self Driven Activity	Eureka – Three Day Ideation Boot camp
30	Self Driven Activity	AGILE PROJECT MANAGEMENT FROM AN INDUSTRIAL PERSPECTIVE FOR BUDDING ENTREPRENEURS
31	Self Driven Activity	NOVATOS :-Think Fresh! Think Different
32	Self Driven Activity	Power of purpose and resilience in life and work- Motivational Session

33	MIC Driven Activity	- IIC Annual Report 2021-22
34	MIC Driven Activity	Building Institute Level YUKTI - National Innovation Repository (NIR)
35	Celebration Day	World Environment Day
36	MIC Driven Activity	Participation of IIC Institutions in IIC Regional Meets
37	MIC Driven Activity	Out of the box thinking for problem solving
38	IIC Calendar Activity	Developing Online Repository of Start-ups Developed/incubated and Way forward plan
39	IIC Calendar Activity	Session on Accelerators/Incubation - Opportunities for Students & Faculties - Early Stage Entrepreneurs
40	Celebration Day	Innovation & Entrepreneurship in HEIs for Aatmanirbhar Bharat & Celebrating 75 Years of Independence -Azadi Ka Amrit Mahotsav
41	IIC Calendar Activity	Session on Innovation/Prototype Validation – Converting Innovation into a Start-up or Session on Achieving "Value Proposition Fit" & "Business Fit"
42	Self Driven Activity	Inceptra 2022- two day startup bootcamp

- No. of student's & faculty ideas generated – 80
- No. of student's & faculty Innovation/prototypes developed - 25
- No. of IPs generated, published and granted - 0
- No. of Student & Faculty Start-ups/Ventures established.- 1
- Amount spent on promotion and awareness generation on Innovation Entrepreneurship in the campus – 25,000
- Amount grant or fund supported to student & Faculty lead Innovations, start-ups and IPR - 0
- No. of Technology Transfer and Commercialisation happened - 0

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

1. **Mr. Arun J S** – Innovation Ambassador(Advanced Level), Mentor Oxyfine – Mentor - Toycathon
2. **Mr. Jijo Jose** – Innovation ambassador (Advanced Level), Mentor – National Innovation Contest (NIC)2020
3. **Mr. Sherry Varghese George** – Innovation Ambassador
4. **Mr. Pradeep M** – Innovation Ambassador
5. **Mr. Shiras S N** – Innovation Ambassador
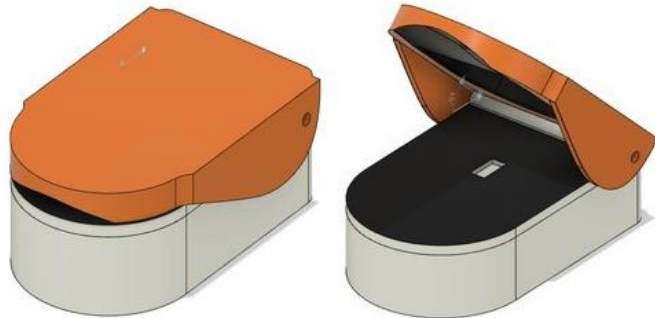6. **Ms. Sherin Mathew** - Innovation Ambassador

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

OxiFine

OxiFine is an open-source Pulse Oximeter device made using minimal components and simplest design aspects. It is a modular device which is different from the conventional pulse oximeters. The makers can build the device and can monitor the pulse rate in bpm and SpO_2 level in % using the companion mobile application. This will take away the display unit from the device and we can power it using a normal micro-b usb power adapter so that batteries can also be avoided. This will ultimately reduce the size and cost of the product.

Mr. Vishnu P Kumar   *3D CAD Model of OxiFine*

The product was initially evaluated by Sree Chitra Tirunal Institute for Medical Sciences and Technology (SCTIMST), Trivandrum and considered for technology transfer at Dr. APJ Abdul Kalam Technological University(APJKTU).

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

   - Name of the start-up :EcoRich Technologies
   - Sector or domain of operation : Health Care, Agritech
   - Products   : Grow Mira, Ckit, Napkin Incinerator
   - Names of founders : Vishnu P Kumar (CEO), Milad Muhammed (CTO)

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

   1. **OxiFine** - Proposed by Vishnu P Kumar, S6EC Student. OxiFine is an open-source Pulse Oximeter device made using minimal components and simplest design aspects. It is a modular device which is different from the conventional pulse oximeters.
   2. **Catalyzer** - Proposed by Vishnu P Kumar, S6 EC Student, Catalyzer is an automatic sanitizer dispenser. Product developed with the help of IEDC and installed at college campus.

   3. **Digital Voting Machine** - Proposed by Hentry Christudas, S6ME Student. Submitted the idea in NIC 2020 and reached up to stage 2.

J. Participation of IIC-institute in various programs of Central and Stage Govt. Highlighting specially for the schemes or programs
   - ARIIA – participation and Rank
     - Institute have participated in ARIIA 2021 ranking

- o Faculty Coordinator **: Ms. Lakshmy S,** Assistant Professor, Dept. of Electronics & Communication Engineering

- **NISP Adoption status** - Trained Faculty, Policy Formulation, Policy Implementation
  - o Faculty Coordinator: **Ms. Lani Rachel Mathew,** Assistant Professor, Dept. of Electronics & Communication Engineering
  - o Policy formation/Implementation Status : In Progress

- ATL Lnkage
  - IIC MBCET Choose 3 ATL Schools in Trivandrum

- Mentor Mentee Program

  - IIC MBCET has been successfully mentored 5 institution across kerala

K. Detail of Social Media & Connections of IIC institute
- Facebook   : officialmbcet
- Instagram   : officialmbcet
- Twitter   : officialmbcet

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

M. **Contact**

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