

**MAR BASELIOS COLLEGE OF ENGINEERING AND TECHNOLOGY,
THIRUVANANTHAPURAM**

CATALYST IEDC MBCET

ACTIVITY REPORT 2024



Catalyst

MBCET IEDC

INNOVATION AND ENTREPRENEURSHIP DEVELOPMENT CENTRE

The Innovation and Entrepreneurship Development Centre of Mar Baselios College of Engineering and Technology, Catalyst was inaugurated in the year 2013 with a purpose of inspiring students to become independent engineers by exposing them to the world of Entrepreneurship through Innovation. The Centre aims to sharpen the skills of students, broadening their knowledge base and equipping them with technical and non-technical qualities that an engineer needs.

Rather than pushing students to startup, the centre believes in inculcating the entrepreneurial spirit in students. The members have identified the true joy of self-learning and they are passionately involved in bringing life into their ideas, to solve the problems that they see around. They know the importance of spreading this fire to ignite the minds of their fellow beings and hence have dedicated all their work in IEDC for this purpose, besides working on their own individual projects. Catalyst Mar Baselios IEDC aims in helping the students follow their dreams and passion to help them depart MBCET campus not just as engineering graduates, but as real practicing engineers who seek and solve problems.

Catalyst IEDC MBCET collaborated with Gtech μ Learn and established a strong foundation for fostering skill development and peer-based learning among students. μ Learn has been a transformative platform that bridges the gap between academic learning and practical skill development. Through its Discord platform, it provides access to a thriving community of peers and mentors who foster creativity, technical learning, and entrepreneurship. The collaborative environment, structured around micro peer groups, enables the earning of Karma Points while enhancing skills through interactive challenges and real-world projects. These Karma Points, recognized as a performance metric, motivate consistent learning and reflect individual contributions to the community. μ Learn enriches technical and professional skill sets while instilling a sense of purpose and community, making it an indispensable part of the educational journey.

EXECUTIVE COMMITTEE 2024

Designation	Name	Mail ID
Nodal Officer (Faculty)	Mr. Arun J S (Assistant Professor EC)	arun.js@mbcet.ac.in
Student Representatives		
Chief Executive Officer(CEO)	C Rachana (CS)	crachana563@gmail.com
Chief Operations Officer(COO)	Krishnapriya Deepak (CS)	krishpriyadk@gmail.com
Chief Technical Officer(CTO)	Ferwin Lopez (CS)	ferwinlopezt@gmail.com
Chief Creative Officer(CCO)	Diya S (CE)	diyas.b20ce1224@mbcet.ac.in
Chief Marketing Officer(CMO)	Bharat Raj S (EC)	bharathrajs.b21ec1123@mbcet.ac.in
Chief Finance Officer(CFO)	Adlu Rahman (CS)	adlurahman05@gmail.com
Chief Vibe Officer(CVO)	Abhiram Krishna (EC)	krishnaunni0471@gmail.com
Chief Skill Officer(CSO)	Aditya S (EC)	adisandeep2003@gmail.com
Head of Operations, Tribe	Shibin Shibu (CS)	shibinsb01@gmail.com
Creative Director, Tribe	Rahul V (CS)	thecanvasslayer143@gmail.com

EVENTS LIST

Sl No.	Name of Event	Start Date	End Date	Learners Engaged	UN SDG
1	Annual General Body Meeting	05-01-2024	05-01-2024	45	SDG9
2	Session on YIP 6.0 Registration	20-01-2024	20-01-2024	30	SDG9
3	Karma Hunt	16-02-2024	16-03-2024	27	SDG4
4	Let's Talk Design	22-02-2024	23-02-2024	62	SDG4
5	Inceptra 2024: Workshop on Design Thinking, Critical Thinking, and Innovation Design	08-03-2024	08-03-2024	75	SDG9
6	Inceptra 2024 :Session on Product Market Fit Mr. Joy Sebastian	08-03-2024	08-03-2024	75	SDG9
7	Inceptra 2024: Workshop on Prototype Design and Process Development, of Technology products	09-03-2024	09-03-2024	75	SDG9
8	Inceptra 2024 :Session on Entrepreneurship skill, attitude, and behavior development by Ms. Archana Gopinath	09-03-2024	09-03-2024	75	SDG9
9	Inceptra 2024: Workshop on Innovation using Business Model Canvas (BMC) by Mr. Vishnu P Kumar	09-03-2024	09-03-2024	75	SDG9
10	Boot Camp 10.0 on Allied Technologies for UAS/Drone-5th March to 9th March	05-03-2024	09-03-2024	92	SDG17
11	Catalyst Evening Cafe 2.0	10-05-2024	10-05-2024	16	SDG4
12	WECODE	19-08-2024	19-09-2024	30	SDG4

13	PIXEL	19-08-2024	19-09-2024	30	SDG4
14	SYNAPSE	19-08-2024	19-09-2024	30	SDG4
15	Inceptra 7.0	05-10-2024	06-10-2024	100	SDG9
16	NovEvolve	09-11-2024	30-11-2024	210	SDG4

1. Annual General Body Meeting on 5 January 2024



The Annual General Meeting 2023 of Catalyst IEDC was conducted on 5th January at Senatus Hall from 12:00 P.M to 1:00 P.M. The meeting started with a silent prayer followed by the welcome address by the Catalyst IEDC Nodal Officer **Mr. Arun J S**. The Annual Report for the year 2023 was presented by **Ms. C. Rachana**, former CMO Catalyst IEDC. Following that a small video made by the alumni of IEDC was presented, where they shared their insights and experiences of working with IEDC and how it helped them shape their career paths. **Dr Abraham T. Mathew**, Principal, officially unveiled the Catalyst IEDC website. After that, he addressed the assembly.

The Executive Committee of Catalyst IEDC for the year 2024 was then announced by **Mr. Arun J S**. The offer letters for the newly appointed members were presented by our Principal. **Ms. C. Rachana**, the new Committee's CEO, delivered her acceptance speech. A vote of gratitude was given by **Ms. Krishnapriya Deepak** COO to conclude the event. The event was attended by 45 participants.

2. Session on YIP 6.0 Registration on 20 January 2024

On January 20, 2024, a workshop was conducted to focus on the procedures involved in the YIP 6.0 registration process. **Mr. Abhilash George**, one of the YIP 4.0 winners, shared his experiences and views with the students, as well as some helpful recommendations. He also demonstrated his presentation and survey findings, as well as ideas for improving their appeal. He also directed the students through the registration, group formation, and idea submission process. The event was conducted on Discord and Google Meet, and was attended by 30 participants.



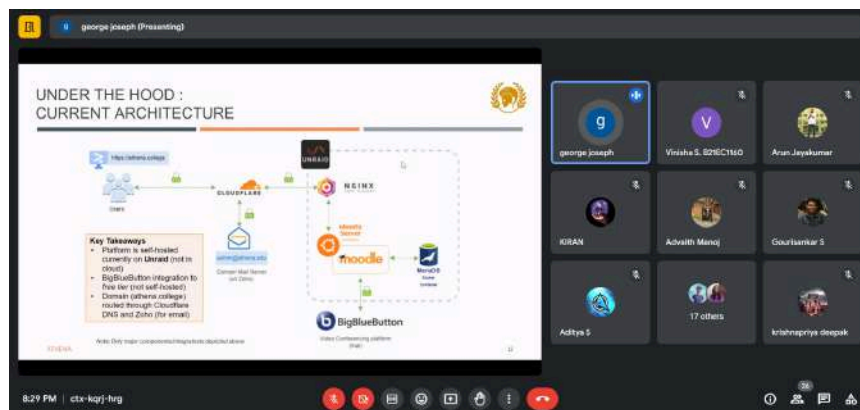
The poster for the 'Session on YIP 6.0 Registration' features a blue and white design. At the top, the title is in large white font. Below it, it says 'Organized by Catalyst IEDC' and '20 January 2024, 8 PM'. A circular portrait of Abhilash George is shown, with a small audio icon below it. His name 'Abhilash George' is written in large blue font, followed by his credentials: 'Winner of YIP 4.0 State Level Finals | Startup Lead of IIC MBCET | Runner up of state finals of Inifinitum BY NIT Calicut'. The Catalyst IEDC logo is at the bottom left. On the right, there is a screenshot of a Google Meet interface showing a presentation slide and a grid of participants.

Session on YIP 6.0 Registration

Organized by Catalyst IEDC 20 January 2024, 8 PM

Abhilash George
Winner of YIP 4.0 State Level Finals |
Startup Lead of IIC MBCET |
Runner up of state finals of Inifinitum
BY NIT Calicut

Catalyst IEDC



The screenshot shows a Google Meet session. The main window displays a presentation slide titled 'UNDER THE HOOD : CURRENT ARCHITECTURE'. The slide contains a diagram of a system architecture and a list of 'Key Takeaways'. The diagram shows a flow from 'This website content' to 'Cloudflare' and 'Amazon S3', then to 'BigBlueButton' and 'Zoom'. The 'Key Takeaways' list includes: 'Platform is self-hosted currently on Ubersid (not in cloud)', 'BigBlueButton integration to this (not self-hosted)', 'Domain (athena.college) routed through Cloudflare DNS and Zoho (the email)', and 'Zoom (not self-hosted)'. The bottom right of the screen shows a grid of participants, including George Joseph, Vinisha S. S2H6C1560, Arun Jayakumar, KIRAN, Advait Manoj, Gourishankar S, Aditya S, 17 others, and krishnapriya deepak. The bottom status bar shows the time as 8:29 PM and the URL cdx-kgj-4rg.

george joseph (Presenting)

UNDER THE HOOD : CURRENT ARCHITECTURE

Key Takeaways

- Platform is self-hosted currently on Ubersid (not in cloud)
- BigBlueButton integration to this (not self-hosted)
- Domain (athena.college) routed through Cloudflare DNS and Zoho (the email)
- Zoom (not self-hosted)

8:29 PM | cdx-kgj-4rg

3. Karma Hunt on 16 February to 16 March 2024

The Karma Hunt, led by μ Learn MBCET and Catalyst IEDC, was a unique event exclusive to first-year students. The event presented an opportunity for the participants to gain Karma points, unlock treasures, and achieve leaderboard domination within the spirit of healthy competition. The participants were given a one-month timeline from 16 February 2024 until 16 March 2024.

The initiative focused on acquainting the students with the μ Learn ecosystem. The event witnessed active participation from the first-year students with more than 40+ registrations. Karma Hunt winners were declared on Day 2 of Inceptra 6.0, Catalyst IEDC's flagship event, where the winners won a hamper loaded with μ Learn merchandise. There was an active participation with 27 learners engaging in various μ Learn tasks.

Prizes were distributed as follows:

Winner: Vedha Mahadevan (S2 CS2)

First Runner-Up: Vasundhara S R (S2 CS2)

Second Runner-Up: Chris Thomas Abraham (S2 CS2)



4. Let's Talk Design-Talk session on 22 - 23 February 2024

On February 22-23, 2024, Catalyst IEDC hosted a Figma design talk session featuring **Joshin Samuel**, a renowned designer. The session covered Figma's versatility for poster design, demonstrating techniques for layout composition, typography, color schemes, and effective image use. Joshin also shared time-saving shortcuts for navigation, selection, grouping, aligning, and distributing objects to enhance workflow efficiency. Additionally, he explored advanced techniques for experienced users, including advanced prototyping, collaboration features, plugin integration, and custom design system setup. Participants left with a deeper understanding of Figma's capabilities and practical skills for complex design projects. The session had 62 participants actively engaging in discovering new design techniques.



5. Workshop on Design Thinking, Critical thinking, and Innovation Design: Inceptra 2024 by Mr. Arun J S on 8 March 2024

Mr. Arun J. S. introduced INCEPTRA and its motto: Interact, Imagine, Innovate. Interact focused on communication, while Imagine emphasized critical problem analysis and creative solution generation through Innovation. An engaging block count puzzle tested participants' creative and critical thinking skills. Following this, he led a discussion on human emotions, including Anger and Happiness, delving into concepts like Eskimos Anger and interpersonal approaches. Mr. Arun J S delivered the workshop on Design Thinking, Critical Thinking, and Innovation Design, with hands-on activities and insightful discussions. The event highlighted the importance of creative problem-solving and innovative approaches in design. Attendees left with a deeper understanding of how to apply these critical skills in their projects and professional endeavors. The workshop was attended by 75 participants.



6. Workshop on Prototype Design and Process Development, of Technology products Inceptra 2024 by Mr. Arun J S on 9 March 2024

Mr. Arun J. S. led an interactive workshop focusing on prototype design and process development, providing participants with invaluable insights into the intricacies of product prototyping. Beginning with a comprehensive overview of the design process, attendees gained a deep understanding of the critical stages involved in bringing ideas to life. Teams were strategically formed around "mission regions," inspired by the theme of "Mission Impossible," fostering a collaborative environment for brand vision creation. Through hands-on activities and practical exercises, participants delved into the nuances of prototype design, learning how to effectively translate concepts into tangible products. The workshop not only empowered attendees with essential skills for prototype development but also instilled a sense of creativity and innovation essential for success in today's dynamic market landscape. 75 participants were in attendance.



7. Session on Product Market Fit Mr. Joy Sebastian Inceptra 2024 on 8 March 2024

Mr. Joy Sebastian from Techgentsia delivered an insightful talk session, where he shared the company's journey and his personal experiences. He highlighted the various challenges they faced and discussed Techgentsia's current standing in the industry. He emphasized the importance of continuously observing the world, staying updated with the latest trends, and adapting to changes to maintain a competitive edge. The attendees gained valuable lessons on resilience, innovation, and the significance of a forward-thinking mindset. Mr. Joy Sebastian led an insightful session on Product Market Fit, emphasizing the importance of aligning products with market needs. The event provided practical strategies for achieving a successful product-market alignment. Participants gained valuable knowledge on optimizing their products for better market acceptance and success. The session was attended by 75 participants.



8. Session on Entrepreneurship skill, attitude, and behavior development Inceptra 2024 by Ms. Archana Gopinath on 9 March 2024

The second day commenced with a talk session by **Ms. Archana Gopinath**, the founder of Trivandrum's reading room. She discussed the vital role of soft skills and personality development in enhancing one's quality of life, both personally and professionally. Emphasizing the significance of effective communication skills and cultivating the right attitude, she underscored the value of becoming indispensable. Ms. Archana Gopinath conducted an engaging session on entrepreneurship skill, attitude, and behavior development, highlighting essential traits for entrepreneurial success. Participants learned valuable strategies for cultivating a proactive mindset and effective business behaviors. The event inspired attendees to develop and enhance their entrepreneurial skills for future endeavors. Ms. Gopinath also advocated for engaging in activities geared towards achieving these goals, providing insights into the strategies and timelines for attaining them. The session had active participation from 75 participants.



9. Workshop on Innovation using Business Model Canvas (BMC) by Mr. Vishnu P Kumar on 9 March 2024

Mr. Vishnu P Kumar conducted an insightful session on Business Model Canvas (BMC), offering attendees a comprehensive understanding of this strategic tool. Participants delved into the key components of BMC, including customer segments, value propositions, channels, and revenue streams, gaining valuable insights into crafting effective business models. Through real-world examples and interactive discussions, Vishnu elucidated the importance of BMC in mapping out business strategies and fostering innovation. Attendees left the session equipped with practical knowledge and tools to develop and refine their business models, poised for success in today's competitive landscape. An idea pitching session where each team was assigned a specific domain. Their task was to devise a comprehensive action plan outlining the implementation of their idea, addressing aspects such as feasibility, marketing strategies, limitations, and more. A panel comprising **Sanna Pramod**, former CEO, **Vishnu P Kumar**, **Aswen A M**, former COO, and **Ms. Merlin George**, Assistant Professor, CSE evaluated the teams. Awards were presented for the best team, Mr. Inceptra, and Ms. Inceptra. The workshop was attended by 75 participants.



10. Boot Camp 10.0 on Allied Technologies for UAS/Drone on 5 - 9 March 2024

Mar Baselios College of Engineering and Technology (MBCET), in partnership with **IEEE Robotics and Automation Society (RAS) Kerala Section, IEDC MBCET, Kerala Knowledge Economy Mission, and NIELIT Calicut**, organized a 5-day boot camp focused on drone technology from March 5th to March 9th, 2024. The initiative was conducted under the auspices of the **Ministry of Electronics and Information Technology, Government of India**. The event saw the participation of 92 individuals and featured distinguished speakers such as **Dr. Nithin**, an entrepreneur, **Rakshit** from CoreEl Technologies Bangalore; and **Binu K Jose**, also an entrepreneur.

The boot camp aimed to provide participants with practical knowledge and hands-on experience in drone technology, promoting innovation, skill development, and entrepreneurship in the field of unmanned aerial vehicles. The bootcamp helped 92 learners gain valuable insights on drone technology.



11. Catalyst Evening Cafe 2.0 on May 10 2024

The Catalyst Evening Cafe 2.0, initiated by IEDC, commenced with a dynamic session featuring **Adlu Rahman**, CFO, aimed at energizing participants with insights into productivity enhancement through the 80/20 principle. There were 16 participants. During the session, Adlu articulated how the 80/20 principle is foundational across a spectrum of sectors, notably in business and personal development. The session concluded with an engaging discussion on the 80/20 principle.



12. WECODE - Technology Workshop on Web Development on 19 AUGUST - 19 September 2024

µLearn MBCET, in collaboration with Catalyst IEDC, enthusiastically launched WECODE, from 19 August to 19 September, as an interest group initiative for students passionate about technology. This community primarily focused on Web Development, providing a platform for students to explore and deepen their expertise in cutting-edge technologies. Open to all skill levels, the program offered training in both foundational and advanced concepts. With a cohort of 30 learners, the initiative provided a valuable and insightful learning experience, completely free of cost. The workshop covered the basics of HTML, CSS and Javascript, while also diving into more advanced areas such as Angular/React, Node.js/Django, and MySQL/MongoDB. Through this comprehensive program, participants were able to enhance their web development skills and gain a deeper understanding of the technologies shaping the future of the web.



The banner is split into two main sections: a yellow left half and a black right half. The top of both sections features logos for µLearn, Catalyst IEDC, and various educational institutions. The left section, titled 'WECODE THE WEB DEVELOPMENT COMMUNITY OF MBCET', includes a call to action to join the 'Full stack Developer Community' and a QR code with the link 'bit.ly/wecode-reg'. It also features an illustration of a person at a laptop with code floating around. The right section, also titled 'WECODE THE WEB DEVELOPMENT COMMUNITY OF MBCET', lists technologies to be mastered: Frontend (Angular, React, Tailwind CSS), Backend (Java, Node.js), and Database (MySQL, MongoDB). It mentions a cohort size of 30 learners and a free registration fee. A quote from Bill Gates is included at the bottom right.

µLearn MBCET and Catalyst Mar Basileos IEDC presents

WECODE

THE WEB DEVELOPMENT COMMUNITY OF MBCET

Join the Ultimate **Full stack Developer Community**
For Students Passionate About Full stack Web Development

Join Us Now!
bit.ly/wecode-reg

What You'll Master

Frontend: Angular, React, Tailwind CSS
Backend: Java, Node.js
Database: MySQL, MongoDB

Cohort Size: 30 learners
Registration Fee: None

"Software is a great combination between artistry and engineering."
- Bill Gates

13. PIXEL - Technology Workshop on UI/UX on 19 August - 19 September 2024

The 30-day UI/UX design workshop, conducted from 19 August to 19 September, 2024, was organized by MuLearn MBCET as part of the PIXEL initiative, the ultimate UI/UX design community at MBCET. The workshop saw active participation from 30 students passionate about the field of UI/UX design. The registration of the program was completely free of cost, making it accessible to all the interested students. The program was designed to provide a comprehensive understanding of the fundamentals, focusing on tools like Figma, design principles, and wireframing techniques. In addition to the basics, the workshop also explored more advanced topics such as prototyping, user testing, and UI animation. Through hands-on learning and practical sessions, participants were able to enhance their skills and gain valuable insights into the dynamic world of UI/UX design.

PIXEL
THE UI & UX DESIGN COMMUNITY OF MBCET

What You'll Master

Beginner Level:
Figma, Design Principles, Wireframing

Intermediate / Advanced:
Prototyping, UI Animation

Join Us Now!
bit.ly/joinuiuxdg

Cohort Size: 30 learners
Registration Fee: None

Join the UI/UX Design Interest Group
For Students Passionate About UI/UX Design

Join Us Now!
bit.ly/joinuiuxdg

Design is not just what it looks like and feels like. Design is how it works.
- Steve Jobs

14. SYNAPSE - Technology Workshop on AI/IoT on 19 August - 19 September 2024

Synapse, the AI and IoT community of MBCET, hosted a 30-day workshop from 19 August to 19 September, 2024. MuLearn MBCET organised the event, for students interested in the fields of IoT and AI, regardless of their experience level - whether they were beginners, intermediates, or advanced learners. The workshop provided an in-depth exploration of programming languages such as C, C++, Python, and Embedded C. Additionally, it covered essential hardware topics, including microcontrollers, microprocessors, and sensor integration. Through this comprehensive program, participants gained hands-on experience and valuable insights into both the software and hardware aspects of IoT and AI, enhancing their skills in these rapidly evolving fields. It witnessed an active participation from 30 learner.

The image displays two promotional posters for the SYNAPSE workshop. The left poster has a dark background and features a stylized house icon with various IoT-related symbols (like a lightbulb, a gear, and a network diagram) floating around it. The right poster has a light background and features a portrait of Elon Musk. Both posters include logos for Catalyst Mar Basellos IEDC, μLearn MBCET, and the SYNAPSE community. The right poster also lists the topics to be mastered: Programming language (C, C++, Python, Embedded C), Hardware (Microcontrollers, Microprocessors and sensor integration), and AI ML (Supervised and Unsupervised Learning). It also mentions a cohort size of 30 learners and a registration fee of none. A quote from Elon Musk is included at the bottom right of the right poster.

SYNAPSE
THE AI & IOT COMMUNITY OF MBCET

What You'll Master

Programming language: C, C++, Python, Embedded C

Hardware: Microcontrollers, Microprocessors and sensor integration

AI ML: Supervised and Unsupervised Learning

Cohort Size: 30 learners
Registration Fee: None

"Everything that can be automated will be automated."
- Elon Musk

Join Us Now!
bit.ly/synapse_24

μLearn MBCET and Catalyst Mar Basellos IEDC presents

SYNAPSE
THE AI & IOT COMMUNITY OF MBCET

Join to collaborate, learn, and innovate at the intersection of AI and IOT

15. Inceptra 7.0 on 5 - 6 October 2024

Inceptra 7.0, organized by Catalyst, the Innovation and Entrepreneurship Development Centre (IEDC) at Mar Baselios College of Engineering and Technology, was a two-day startup boot camp held on October 5th and 6th, 2024. With its adventurous theme, 'Pirates of the Caribbean', the event targeted first-year students, introducing them to the entrepreneurial ecosystem through creative and hands-on activities.

The program began with inspiring talks from industry experts, including **Mr. Arun J. S.**, Nodal Officer of Catalyst IEDC, and **Dr. S. Viswanatha Rao**, Principal of MBCET, emphasizing the importance of creativity, innovation, and leveraging resources. Day 1 activities focused on team-building, branding, marketing, and investment simulations, equipping participants with skills in collaboration, problem-solving, and business idea refinement. Approximately 100 participants engaged enthusiastically, showcasing exceptional creativity and teamwork.



On Day 2, the focus shifted to product development and strategic thinking, with teams innovating within specified domains and presenting their ideas to a panel. The introduction of μ Learn roles further instilled leadership skills and role-based collaboration. Teams pitched their products, gaining valuable insights from constructive feedback provided by the panel. The event culminated in an awards ceremony celebrating outstanding performances, followed by a feedback session where participants reflected on the engaging activities and unique theme. Inceptra 7.0 successfully fostered entrepreneurial values, creativity, and practical skills, leaving participants inspired and better equipped to navigate the startup world.



16. NOVEVOLVE on 9-30 November 2024

NovEvolve was an engaging 21-day program from 9 to 30 November, with 210 challenge entries that seamlessly integrated with µlearn tasks. Each week was dedicated to a specific µlearn task, providing participants with an opportunity to earn both Karma points and cash prizes based on their performance. The program also featured two insightful workshops, one focused on Scratch (held on the 14th) and the other on Thunkable (held on the 19th), designed to enhance participants' technical skills. Throughout the program, six challenging tasks were introduced, which encouraged students to unleash their creativity and strive for excellence in technology. This holistic approach aimed not only to enhance learning but also to foster innovation and problem-solving abilities, making NovEvolve a truly transformative experience for all participants.

