



**BETHLAHEM INSTITUTE OF ENGINEERING**

*Karungal - 629157, Kanyakumari District, Tamil Nadu.*

**(Approved by AICTE & Affiliated to Anna University - Chennai)**

**An ISO 9001:2015 Certified Institution**



**e-mail: [mail@bethlahem.org](mailto:mail@bethlahem.org)**

**website: [www.bethlahem.org](http://www.bethlahem.org)**

**Institution's Innovation Council  
Report for Academic Year 2023-24**



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## A. About IIC Institute

### Vision of IIC established at the Institute

- To cultivate a vibrant and forward-thinking ecosystem, where innovation and entrepreneurship thrive.
- We envision empowering our students and faculty with the skills, resources, and opportunities to ideate, create, and implement transformative solutions that address real-world challenges.
- To sensitize faculty members, students & researchers about R&D initiatives of the BIOE.
- To initiate Mentoring Programmes, Internships and Incubation at BIOE.

### Mission of IIC established at the Institute

- The IIC aims to nurture a culture of innovation among students by providing resources, guidance, and opportunities for them to develop creative solutions to real-world problems.
- It seeks to support and empower aspiring entrepreneurs among students by offering mentorship, access to funding, and the necessary ecosystem to transform innovative ideas into successful businesses.

### Journey of IIC established at the Institute

Bethlahem Institute of Engineering, Nadutheri, is one of India's most intellectually vibrant campuses, offering world-class infrastructure and support for pre-incubation and incubation activities. The institute has fostered a culture of creativity and entrepreneurship, making it a hub for innovation. Since its establishment, the Institution Innovation Council (IIC) at BIOE has been an active participant in various national and institutional initiatives, such as the Mentor-Mentee Scheme (2023-24), promoting collaboration and knowledge exchange. With a strong foundation in intellectual and physical resources, BIOE's IIC has created an ideal environment where faculty and students can thrive. The pleasant working atmosphere, coupled with dedicated R&D teams, has enabled the institute to scale new heights in innovation and research. By embracing these opportunities, the IIC at Bethlahem Institute of Engineering is poised to achieve even greater milestones in the coming years, solidifying its reputation as a leader in fostering innovation.



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

### **President**

Performed the role as Head of Council. Initiate, identify and form the council and assign the role and responsibility to members. Coordinates with innovation cell and responsible for all the IIC activities in the institute.

Responsible for submitting the progress/activity reports on the IIC portal. Ensure the effective implementation of IIC activities with the help of Convenor.

### **Vice President**

Responsible for the coordination of the activities from industries.

### **Convenor**

Immediate point of contact and coordination. Organizing meetings and followup on the action items. The Convenor works in close coordination with the IIC president and provides help wherever required for smooth conduction of activities Coordinators etc.

### **Internship Activity coordinator (Faculty)**

Primary responsible for organising and coordinating after Internship opportunity and engaging students in Start-ups, innovation labs and incubation centres etc. to promote innovation activities and extend support to other activities.

### **NISP coordinator (Faculty)**

Primary responsible is to undertake responsibility of carrying out of a periodic review and progress monitoring at institute level for further improvement. They will carry out assessment of the current status of campus innovation and start up ecosystem (SWOT) and identify thrust areas of intervention and will also design the policy document and implementation strategy for adoption and also act as point of contact with NISP implementation team at MoE's Innovation cell for regular handholding and progress monitoring activities.

### **Innovation activity coordinator (Faculty)**

Primary responsible for organising and coordinating after Innovation promotion activities and extending support to other activities.

### **IPR activity coordinator (Faculty)**

Primary responsible for organising and coordinating after IPR mentoring, awareness opportunity to promote innovation activities and extend support to other activities.



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**Social Media Coordinator (Faculty)**-Primary responsible for organising and coordinating after social media Promotion and public relation and effectively.

**ARIIA Coordinator (Faculty)** - Primary responsible for creating repository to increase the ranking in ARIIA and also extend support to other activities.

**NIRF coordinator (Faculty)**- Primary responsible for creating repository and advising on more innovation and Research activities in campus to increase the ranking in NIRF and also extend support to other activities.

**Start-up activity coordinator (Faculty)**- Primary responsible for organising and coordinating after Start-up promotion activities and extending support to other activities.

**Other Members** – There is no limit. They support as a team in every activity.

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

Total No. of IIC Members	20 Teaching Faculty members 15 Students 2 External Members
Total No of IAs	02
Total No. of faculty Mentors	01
Pre-Incubation Units	01
IP	01

Bethlahem Institute of Engineering (BIOE) provides a wide range of facilities and infrastructure to promote innovation and entrepreneurship on campus. The institute hosts student bodies such as the Innovation Club, and Robotics Club, which actively engage in fostering creativity and entrepreneurial spirit among students. In addition, the institute boasts separate pre-incubation units, as well as an Intellectual Property Rights (IPR) cell, all of which work together to support and nurture innovative ideas. These comprehensive facilities provide a robust foundation for encouraging innovation and entrepreneurship across the campus.



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

Bethlehem Institute of Engineering promotes innovation and entrepreneurship through its Centre for Innovation cell led by Ms.J.Sophia Jone. The Centre fosters a professional entrepreneurial mindset among students and includes the Institution's Innovation Council (IIC), MSME, Entrepreneurship Development Cell (EDC), and National Innovation Startup Policy (NISP).

The Institute provides robust infrastructure with four idea pitching rooms, innovation seminar halls, and R&D to support innovative projects. Additionally, the active Student Activity Centre (SAC) features Technical Club specifically promoting innovation and entrepreneurship on campus.

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

Number and Different types of I&Eand IPR activities Conducted	10
No. of student's & faculty ideasgenerated	5
No. of student's & faculty Innovation/prototypes developed	10
No. of Student & Faculty Start-ups/Ventures established	NIL
Amount spent on promotion and awareness generation on Innovation Entrepreneurship in thecampus	INR 10,000
Amount grant or fund supported to student & Faculty lead Innovations,start-ups and IPR	NIL
No. of Technology Transfer andCommercialization happened	NIL

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

- Students from the Electronics and Communication Engineering department at Bethlehem Institute of Engineering have been selected for the TNSCST Student Project Scheme 2023-2024. Under the mentorship of Mrs. K. Sindhu, the team comprising Aksha Sherin D, Jothikaa A, Kisholin D, and Vidhya G demonstrated exceptional innovation and technical skills. This achievement highlights the institute's commitment to fostering excellence in science and technology.



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- The BETHBOTS team from Bethlehem Institute of Engineering excelled at the TECHNIXIAN World Cup 2024 in Noida, reaching the semi-finals in the international Robo Hockey event. Competing in the Open Fastest Line Follower category, they showcased exceptional technical skills and innovation, advancing to the second level after months of rigorous preparation and teamwork.

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

### Bethlahem Institute of Engineering Students Selected for TNSCST Student Project Scheme 2023-2024

We are delighted to announce that a batch of students from the Department of Electronics and Communication Engineering (ECE) at Bethlahem Institute of Engineering has been selected for the prestigious *Student Project Scheme 2023-2024*, organized by the Tamil Nadu State Council for Science and Technology (TNSCST). This recognition is a testament to their dedication and innovative approach in the field of science and technology.

The team, consisting of **Aksha Sherin D, Jothikaa A, Kisholin D, and Vidhya G U**, all from the ECE department, showcased their technical expertise and creativity, securing this remarkable opportunity. Their hard work and commitment to excellence in project development have set a benchmark for their peers.

Under the mentorship of **Mrs. K. Sindhu**, Assistant Professor of ECE, the students received the guidance and support necessary to refine their ideas and successfully present their project. Mrs. Sindhu's mentorship played a crucial role in helping the team meet the high standards required by TNSCST.

This achievement reflects not only the individual talents of the students but also the strong academic foundation and nurturing environment provided by Bethlahem Institute of Engineering. The institute continues to support and promote innovation, preparing its students to excel in national-level competitions and initiatives.





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*Congratulations*

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We are proud to announce you that a Batch of students from our Institution has been selected for the Student Project Scheme (2023-2024) by the Tamil Nadu State Council for Science & Technology (TNSCST). We congratulate the Mentor and Students for this marvelous achievement.

**Mrs. K. Sindhu**  
AP/ECE (Mentor)

**AKSHA SHERIN D**  
(ECE)

**JOTHIKA.A**  
(ECE)

**KISHOLIN.D**  
(ECE)

**VIDHYA G.U**  
(ECE)

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## Bethlahem Institute of Engineering Students showcased their exceptional skills in the TECHNOXIAN World Cup 2024

Our BETHBOTS team of Bethlehem Institute of Engineering has showcased their exceptional skills and determination in the TECHNOXIAN World Cup 2024 held at the Noida Indoor Stadium, Delhi.

Competing in the international Robo Hockey event, BETHBOTS went on head-to-head collision with some of the brightest and most innovative robotic teams around the globe. We are delighted to inform you that our team qualified the position to enter into Semi-Finals. Students from Bethlehem Institute of Engineering (BIOE) made an impressive entry at TechnoXian 8.0, one of the largest robotics competitions in the country. Competing in the Open Fastest Line Follower category, the team displayed exceptional technical skills and innovation. Their robot, designed for speed and accuracy, navigated the complex course with precision, successfully advancing them to the second level of the competition.

The preparation for the event was a rigorous process, where the team from BIOE spent months fine-tuning their robot, optimizing it for performance. Through a combination of advanced programming and mechanical adjustments, the students ensured that their robot could respond swiftly to the line path while maintaining balance and speed. Their dedication and effort culminated in an outstanding first-round performance, catching the attention of the audience and judges alike.



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TechnoXian 8.0 provided a platform for students from across the country to demonstrate their prowess in robotics, and the BIOE team stood out among many participants. Their success in reaching the second level was a result of their hands-on approach to problem-solving and their ability to adapt under pressure. Each member of the team contributed their skills, creating a cohesive unit that worked seamlessly during the competition.

The students' participation not only reflects their personal growth but also showcases the strong foundation in engineering and innovation provided by Bethlehem Institute of Engineering. The institute's dedicated clubs, such as the Innovation Club and Idea Club, along with its robust incubation and pre-incubation units, played a vital role in supporting the students' journey. The collaborative environment at BIOE encourages students to push the boundaries of technology, helping them excel in national-level competitions like TechnoXian.

Looking ahead, the BIOE team is preparing to tackle the challenges in the upcoming rounds with even more enthusiasm and determination. Their advancement to the second level is just the beginning of their journey at TechnoXian 8.0, and the students are motivated to further improve their robot's performance and bring home greater accolades. Their success is a testament to the institute's commitment to fostering innovation and excellence in the field of robotics.

**CONGRATULATIONS BethBoTs**

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**WORLD CUP 2024**

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Competing in the international Robo Hockey event, BETHBOTS went on head-to-head collision with some of the brightest and most innovative robotic teams around the globe. We are delighted to inform you that our team qualified the position to enter into Semi-Finals.

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

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

- A team of students from the Department of Electronics and Communication Engineering at Bethlehem Institute of Engineering has been selected for the TNSCST Student Project Scheme 2023-2024, showcasing their innovation and dedication. Mentored by Mrs. K. Sindhu, AP/ECE

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

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

<https://www.facebook.com/photo?fbid=747901677465959&set=pcb.747901757465951>



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## INSTAGRAM LINK:

[https://www.instagram.com/p/C5aMRcPvnJd/?img\\_index=4](https://www.instagram.com/p/C5aMRcPvnJd/?img_index=4)

## TWITTER LINK

[https://twitter.com/bethlahem\\_engg/status/1776491382569677086/photo/1](https://twitter.com/bethlahem_engg/status/1776491382569677086/photo/1)

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

As the IIC Convener, I am proud to witness the remarkable dedication and innovative spirit of our students. Their active involvement in various initiatives showcases our commitment to fostering creativity and entrepreneurship. The collaborative environment at our institution not only empowers students to develop their ideas but also prepares them to tackle real-world challenges. We are dedicated to nurturing future leaders in innovation and ensuring they have the support and resources necessary to excel.



**Mrs. J. SOPHIA JONE**

IIC CONVENOR

BETHLAHEM INSTITUTE OF ENGINEERING

Serving as the IIC Coordinator has been a truly rewarding experience. It's inspiring to see students transform their ideas into impactful projects, reflecting their hard work and creativity. Our initiatives have fostered a culture of collaboration and support, enabling students to thrive in their endeavors. I am excited to continue this journey with them, helping to cultivate the next generation of innovators and problem-solvers



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Mrs. D. V. VIJI NIRMALA

IIC MEMBER

BETHLAHEM INSTITUTE OF ENGINEERING

Being the IIC Coordinator has allowed me to witness firsthand the incredible potential of our students. Their enthusiasm for learning and willingness to embrace challenges is truly inspiring. The initiatives we've implemented encourage collaboration and practical application of knowledge, fostering a rich culture of innovation. I am proud to support our students as they turn their ideas into reality, preparing them to make significant contributions to society and industry



Mr. A. AJISH

IIC MEMBER

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## Images







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