राष्ट्रीय प्रौद्योगिकी संस्थान आंध्रप्रदेश
NATIONAL INSTITUTE OF TECHNOLOGY ANDHRA PRADESH
Near National Highway No. 16, Kadakatla, Tadepalligudem – 534101
West Godavari District, Andhra Pradesh, India

INSTITUTION'S INNOVATION COUNCIL (IIC)

Brindavan Bhawan



Introduction

The Institution's Innovation Council (IIC) at National Institute of Technology Andhra Pradesh plays a significant role in promoting innovation, entrepreneurship, research, startup culture, and technological development among students and faculty members. The council functions under the Ministry of Education Innovation Cell (MIC) with the objective of strengthening the innovation and entrepreneurial ecosystem within the institute.

The council actively organizes various innovation-driven activities, workshops, startup programs, mentoring sessions, competitions, and research initiatives to encourage students and faculty members to transform creative ideas into practical and sustainable solutions. The IIC ecosystem also provides opportunities for interdisciplinary collaboration, skill development, startup incubation, and prototype development.

Objectives

The major objectives of the Institution's Innovation Council are:

- To create and strengthen the innovation ecosystem within the institute.
- To promote entrepreneurship and startup culture among students and faculty members.
- To encourage idea generation and enhance problem-solving abilities.
- To support innovative projects and prototype development activities.
- To create awareness regarding Intellectual Property Rights (IPR).
- To facilitate mentoring and incubation support for startups.
- To encourage industry-academia interaction and collaboration.
- To motivate students towards research and technological innovation.

Infrastructure and Incubation Facilities

National Institute of Technology Andhra Pradesh has established dedicated infrastructure facilities to support innovation and entrepreneurship activities. The institute provides a comprehensive ecosystem that promotes creativity, startup development, and research initiatives.

The facilities available under the IIC ecosystem include:

- Incubation Cell
- Startup Workspace
- Desktop Systems
- Executive Chairs and Tables
- Prototype Development Facilities
- Research Support Facilities

- Innovation Support Infrastructure
- Mentoring and Meeting Facilities
- Computing Facilities
- Collaborative Workspace for Students and Innovators

The incubation facility provides students and innovators with an environment that supports the development of ideas into prototypes and facilitates the transformation of innovative concepts into practical applications.

Institution's Innovation Council (IIC) – Brindavan Bhawan **Introduction** The Institution's Innovation Council (IIC) at National Institute of Technology Andhra Pradesh provides dedicated infrastructure facilities to support innovation, entrepreneurship, research, prototyping, and startup activities. These facilities help students, researchers, and innovators develop ideas into practical solutions and promote a culture of creativity and innovation within the institution.	
Design Laboratory: The Design Laboratory is established to support innovation, product design, and research activities under the IIC. It facilitated within the Design Laboratory (Room No.12). The laboratory provides a technology-enabled environment equipped with GPU Workstations running Linux (Ubuntu) to facilitate computational and design-based applications. The facility supports CAD design software, 3D modelling tools, simulation platforms, and prototype development activities for students, researchers, and innovators involved in academic, research, and startup-oriented projects.	
3D Printing Laboratory: The 3D Printing Laboratory serves as a dedicated prototyping and product development facility under the IIC (Room No. 09). The laboratory supports innovation, research, and startup activities through Solid Type (Filament) and Resin Type 3D printing technologies. The facility utilizes **Bambu Studio** and **ELEGOO** software for model preparation and printing operations Enabling students & innovators to convert design concepts into physical prototypes.	

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Bambu Lab X1E: The Bambu Lab X1E is a professional, high-performance filament-based 3D printer facilitated within the 3D Pr inting Lab (Room No. 09) at IIC Brindhavan Bhawan. Built for high-speed precision and engineering-grade rapid prototyping, it supports a wide range of thermoplastic filaments. With features like active chamber heating and multi-material capability, it allows students, faculty, and researchers to transform complex digital designs into highly durable, precise physical models for advanced technical projects.	
Creality 3D Printer: It is an efficient and reliable additive manufacturing tool facilitated within the 3D Printing Lab (Room No. 09) at IIC Brinthavan Bhawan. Ideal for rapid prototyping and physical modeling, it allows students and researchers to easily convert digital CAD models into physical prototypes using standard thermoplastic filaments like PLA and ABS.	
Elegoo Saturn 4 Ultra 16K: The Elegoo Saturn 4 Ultra 16K is an advanced resin-based 3D printer featuring a high-precision 16K LCD screen and smart AI technology. printer facilitated within the 3D Printing Lab (Room No. 09) at IIC Brindhavan Bhawan It delivers exceptional surface smoothness and ultra-fine detail, far surpassing standard filament printers. Equipped with tilt-release technology for fast layer curing, it enables students and researchers to fabricate high-precision prototypes, intricate engineering parts, and complex micro-structures for academic and research projects	
IoT Laboratory: The Internet of Things (IoT) Laboratory is an upcoming research and development facility located in Room No. 04 at IIC Brinthavan Bhawan. Designed to foster innovation in smart technologies and embedded systems, it will soon host advanced sensor-based infrastructure and connected devices within the next few months. Currently, the facility houses the **FlowPod Project**, an **Ignition Grant project submitted by students to IIC**. Additionally, an IoT-based Smart Bed System is slated to be established shortly to drive healthcare-oriented research and real-world applications.	

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GPU Workstation:

It is paired with a BenQ high-resolution display monitor, is a high-performance computing setup facilitated inside the Design Lab at IIC Brindhavan Bhawan. Engineered for intensive computational tasks, advanced 3D rendering, machine learning, CAD/CAM modeling, and complex simulation workflows, this facility provides robust processing capabilities required for academic research and product design.

To ensure continuous operation, uninterrupted simulation tasks, and data safety, the workstation is supported by a dedicated 3kVA Online UPS system, providing round-the-clock power backup.



Conference Hall:

The IIC Conference Hall serves as a dedicated facility for conducting Institution's Innovation Council (IIC) activities, including meetings, workshops, seminars, expert talks, mentoring sessions, and entrepreneurship development programs. The facility provides a collaborative environment for innovation discussions, technical presentations, and startup interactions. The conference hall is equipped with an **Interactive Display Panel** to support effective presentations, knowledge sharing, and interactive learning activities among students, faculty members, innovators, and startup teams.



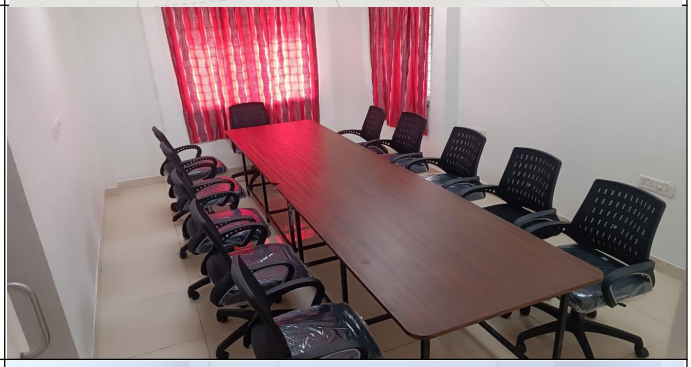


IIC Office:

The IIC Office serves as the central coordination and administrative unit for IIC activities at NIT Andhra Pradesh. The facility supports the planning, organization, and monitoring of various innovation, entrepreneurship, startup, and research-related activities. It acts as a dedicated space for conducting meetings, maintaining documentation, coordinating events, and facilitating interactions among students, faculty members, and startup teams.



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Incubation Cell: The Incubation Space supports innovation, entrepreneurship, and startup development activities under the IIC. The facility provides a collaborative environment for startup discussions, mentoring sessions, and project activities. The incubation facility enables students and innovators to transform ideas into practical solutions and entrepreneurial ventures.	
Incubation Cabin-I: The Incubation Cabin–I is established to support innovation, startup development, and entrepreneurial activities under the IIC. The facility provides a collaborative environment for mentoring sessions, idea development, and project discussions. It enables students and innovators to transform innovative ideas into practical solutions and startup initiatives.	
Incubation Cabin-II: The Incubation Cabin–II is allotted to final-year students for startup and innovation activities under the IIC. Currently, the facility is being utilized by ASTA Health Tech Pvt. Ltd for developing healthcare technology solutions and startup activities. The startup is focused on developing an AI-based remote patient monitoring and disease prediction system that utilizes real-time patient vital information and intelligent analytical techniques. The developed system aims to assist doctors in patient monitoring, early identification of health conditions, and improving healthcare support resource-constrained environments.	