

## DIET- Technology Business Incubator (TBI) established at Dhanekula Institute of Engineering & Technology, Vijayawada.

Sl No	Department	1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year	Total students trained
01	Diploma EEE	65	48	54	102
02	Diploma ECE	35	62	59	121
03	Diploma Mech	17	47	55	102
04	Diploma Civil	NA	17	18	35
05	Diploma CSE	66	NA	NA	0
06	ECE	174	183	186	369
07	EEE	8	28	26	54
08	CIVIL	2	12	50	62
09	CSE	194	208	204	412
10	IT	124	71	69	140
11	MECH	0	17	25	42
12	CSM	108	63	NA	63

DIET-TBI, conducted a **one-week Skill development program on “Build your own IoT application”-focus on agriculture sector 20-02-2023 to 25-02-2023** in association with Dept of ECE. The Summary of the workshop is presented below.



**DIET-TBI**

**Technology Business Incubator**

**A Six Day Skill development program on "Build your own IoT Application" - Focus on Agriculture sector**

**20-02-23 to 25-02-2023**

**Dhanekula Institute of Engineering & Technology,  
Penamaluru Mandal, Ganguru,  
Vijayawada - 521 139, Andhra Pradesh, India.**

Dhanekula Institute of Engineering and Technology established in the year 2009 at Ganguru, Vijayawada, Krishna(Dist) is the first of its kind educational institution founded by Sri.Dhanekula Ravindranadh Tagore - a living legend who is famous for his versatility and excellence in promoting various agricultural and industrial organizations and known for his love and affection towards the man kind - improving their standard of living with his meticulous, measured efforts.

Dhanekula Institute of Engineering and Technology is affiliated to JNTUK, Kakinada and is approved by AICTE, New Delhi, it aims at providing a sound technical knowledge and broad vision to the technocrats of the future - as they are prepared for a successful tomorrow the institution will endeavor to fabricate accomplished and capable engineers proficient enough to face the dynamic changes of the present century. Qualified, experienced and dedicated staff who remain updated with latest developments in their fields is an additional asset to the college.

The institution currently offers B.Tech courses in the following disciplines:

- ☒ Civil Engineering
- ☒ Electrical &amp; Electronics Engineering
- ☒ Mechanical Engineering
- ☒ Electronics &amp;amp; Communication Engineering
- ☒ Computer Science &amp;amp; Engineering
- ☒ Computer Science &amp;amp; Engineering (Artificial Intelligence &amp;amp; Machine Learning)
- ☒ Information Technology

The eligible departments are NBA accredited till the year 2024-2025 and the institution is ISO Certified.

**DIET-TBI Objective:**  
To create IoT manpower by students projects/research in the field of IoT based applications.  
To provide environment in product design, testing and also for validation in the field of IoT empowered smart agriculture systems.  
IoT research lab is a hub point for institute, concentrated on research advancements IoT and applications. IoT research lab units multidisciplinary analogies and driving organizations to take part in deep forward research and hands on examination.  
This research lab mainly focus IoT based system design in the field of smart agriculture which includes precision , drone farming.



**WHO CAN APPLY**  
This course is intended for the **Diploma/B.Tech/M.Tech/Research Scholars of all engineering disciplines of Educational institutions approved by AICTE. Number of seats are limited.**

**COURSE FEE**  
**INR 300 PER Student.**  
**Certificate will be awarded to the participants who have secured 75 % attendance and clear the test.**

**LIST OF TOPICS**  
**IoT Concepts**  
**IoT Applications in Agriculture**  
**3D Printing**  
**CAD Modelling**  
**PCB Manufacturing**  
**Circuit Simulation**

## **About TBI:**

The TBI is a venture of universities, public research institutes, local government and private institutions to promote and bolster a new technology intensive enterprise.

TBI refers to the type of incubation where the focus group consists of innovative, mostly technology-oriented, or knowledge-intensive service sector enterprises and interactions with the academic sphere giving a substantive element of the incubation process. The pushing forward of TBI occurred in parallel with the vigorous transformation of today's spatial economic processes, it can be interpreted as a reply for the challenges of the learning-based economy.

As TBI intervenes into the spatial processes of the learning-based economy, integrates innovation- and enterprise-policy, and is implemented with the active participation of the academic sphere, it has certain unique characteristics that deserve mention:

- TBI fosters innovative start-up firms, thus the process of incubation is strongly intertwined with the innovation process that occurs in the supported enterprises.
- The objective of TBI is the realization of certain local economic development goals (ultimately the enhancement of the competitiveness).
- TBI aims at the development of new innovative industries by stimulating the establishment and early growth of start-up firms

## **DIET-TBI:**

DIET-TBI main focus is to develop innovative products for agriculture and train the students to develop such products.

### **Main Focus areas are:**

1. PCB Design and Fabrication
2. IoT based atmospheric water supply system
3. Automatic water management system
4. Drone sprayer
5. Smart and versatile cleaner with IoT applications

### **Outcomes of the Program:**

The course is designed in such a way that the students will learn the tools using Project-based learning which offers students go beyond academic experiences of textbooks and lectures. In the process, they learn critical thinking skills and the competence to solve problems in the world around them. This exposure they can use in Student projects and convert them into PRODUCTS/PAPERS/PATENTS. Technology Business Incubator has an influence in creating Start-ups. This shows that the better the Technology Business Incubator performs More incubators will rise and create local employment.

## Objectives of the programme:

The aim of this course is to train students in latest skill set in the areas of 3D Printing, Internet of Things & PCB Manufacturing, the 6 days will cater all the basic principles of the domains mentioned and students can thrive in these areas for better innovations.

The course is arranged in a series of informative expert lectures on CAD Modelling, TINKER CAD, Simulation Using TINA Software and hands-on sessions on 3d Printer, IoT Builder & EP42 PCB Manufacturing .The fundamental principles guiding the advances in these areas were presented.

## Schedule:

	10:00AM-01:00PM	02:00 PM- 05:00 PM
Monday Day-1	CAD Design Mr K Babu Rao Venue: CAD Lab	Hands-on using 3D Printer Mr Kavilikatta Pavan Kumar Venue: DIET-TBI
Tuesday Day-2	Product Manufacturing using 3D Printer Mr Kavilikatta Pavan Kumar Venue: CAD Lab	Product Manufacturing using 3D Printer Mr Kavilikatta Pavan Kumar Venue: DIET-TBI
Wednesday Day-3	IoT Builder Demonstration Mr. Mohammed Abdul Aziz Venue: IOT Lab	Installation of Arduino IDE & Tinker CAD Mr. Mohammed Abdul Aziz Venue: IoT Lab
Thursday Day-4	Make Your Own IOT Product Mr. Mohammed Abdul Aziz Venue: IoT Lab	Make Your Own IOT Product Mr. Mohammed Abdul Aziz Venue: IoT Lab
Friday Day-5	Circuit Design Using Tina Software Dr Rajesh Gogineni Venue: APSSDC Lab	Demonstration of PCB Design Machine Dr Rajesh Gogineni Venue: DIET-TBI
Saturday Day-6	Make Your Own PCB Mr P Veeraswamy Venue: APSSDC Lab	Product Testing & Validation Mr P Veeraswamy Venue: DIET-TBI

## Online test links:

<https://docs.google.com/forms/d/e/1FAIpQLSdlibD87qS39tIUiuoLf4FrX44vZ40fx1eeQZm8lQj5lKV7kQ/viewform>

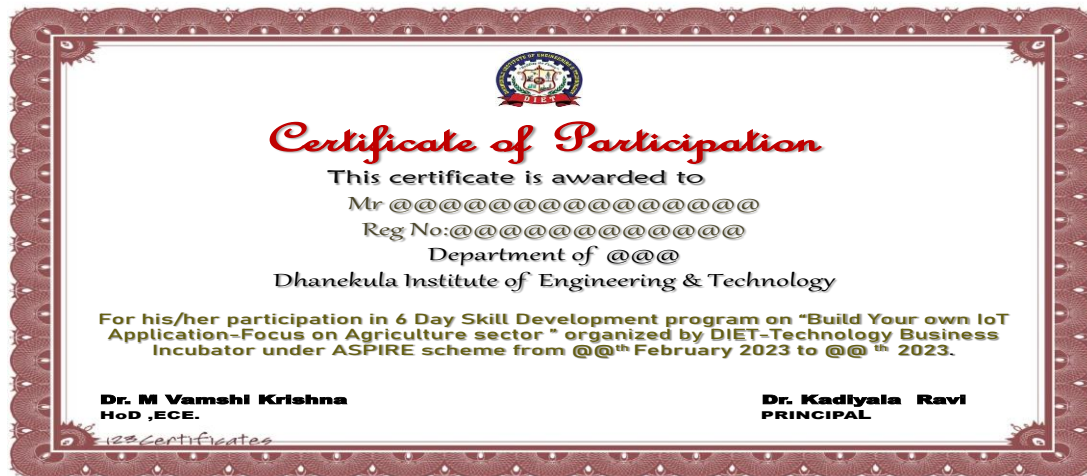
## Sample Attendance:

## Link for Feedback:

<https://docs.google.com/forms/d/1ZC-7ghP3mh4YB2n5MTIoAqTeUYQm7nJC-X3pe5Ep1Wk/edit>

Press report if any after successful completion:

Sample certificate:



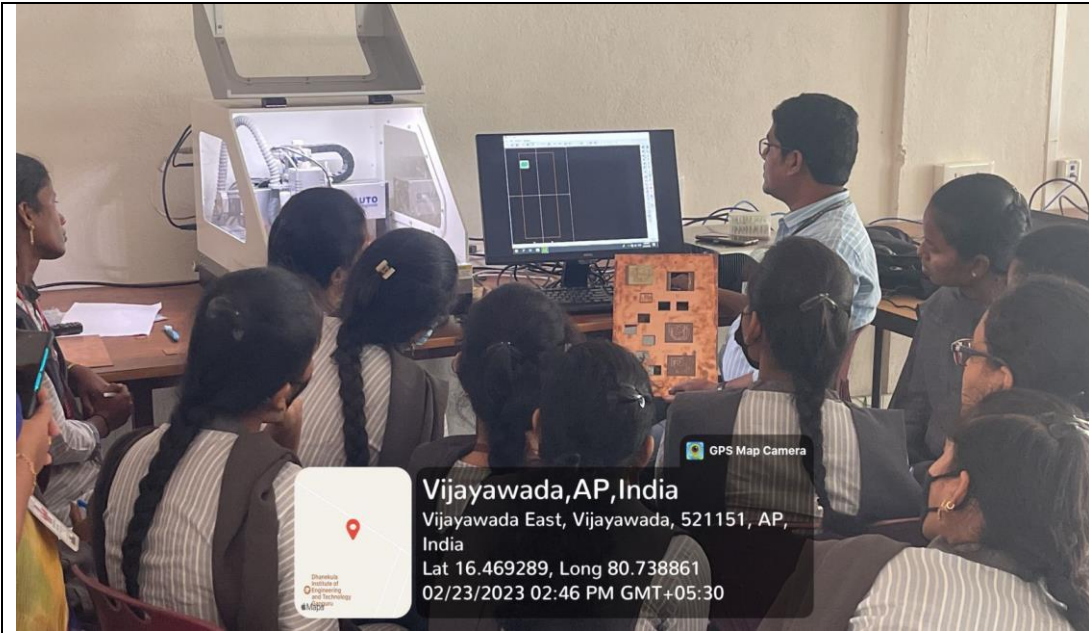
Conclusion:

The program was organized for 6 days and all the students who qualified in the exam and students with a minimum of 75 % attendance were awarded with certificates. The students have done few simulations and successfully prototyped using PCB Manufacturing machines and 3D Printer. Through IoT builder Students have worked on different agriculture sensors and verified the results.

I thank Management, D.K.R.K Ravi Prasad Director Sir, Dr Ravi Kadiyala Principal, Dr R Satya Prasad Dean Academics, R&D, HoD's, Teaching & NON teaching staff and students for their continuous support to make this event a success.

The Trainers involved in TBI are:

- ❖ Dr G Rajesh Associate Professor Dept of ECE
- ❖ Dr B Prurhvi Nath Assistant Professor Dept of ECE
- ❖ Mr K Pavan Kumar Assistant Professor Dept of MECH
- ❖ Mr K Babu Rao Assistant Professor Dept of CIVIL
- ❖ Mr Md Abdul Aziz Assistant Professor Dept of ECE
- ❖ Mr G Vasanth Assistant Professor Dept of ECE



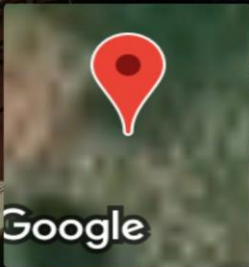
Vijayawada, AP, India

Vijayawada East, Vijayawada, 521151, AP,  
India

Lat 16.469289, Long 80.738861

02/23/2023 02:46 PM GMT+05:30

GPS Map Camera



Krishna, Andhra Pradesh, India

FQ63+R2H, Edupugallu Canal Rd, Edupugallu,  
Andhra Pradesh 521151, India

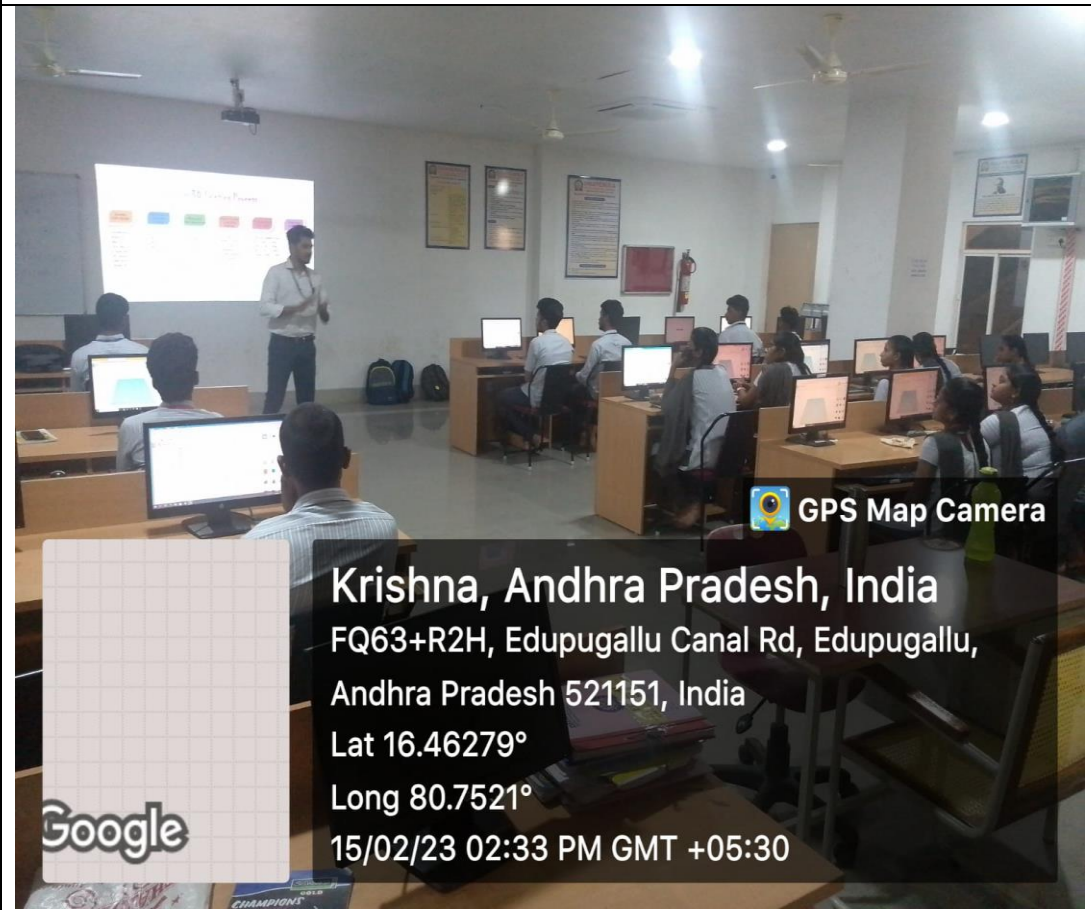
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Long 80.7521°

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GPS Map Camera

Google



 GPS Map Camera

**Krishna, Andhra Pradesh, India**

FQ63+R2H, Edupugallu Canal Rd, Edupugallu,

Andhra Pradesh 521151, India

Lat 16.46279°

Long 80.7521°

15/02/23 02:33 PM GMT +05:30



