

01-11-2021

Hyderabad

To,
The principal,
GRIET,
Hyderabad.

Subject: Permission to conduct value added course on IOT Projects – Basic Building Blocks from 16th - 20th November

Dear Sir,

Department of Civil Engineering planning to conduct a value-added course on **IOT Projects – Basic Building Blocks** from 16th - 20th November for 3rd year Civil Engineering students, with the help of Department of ECE. This course will help students to learn the basic building blocks of IOT projects and external and extended the learning to projects in the civil engineering domain. In this regard, please give us the permission and necessary support to conduct the course.

Regards



Dr C Lavanya,

HOD, Civil Engineering Department

forwarded.

J. Benven

permitted
3-11-21
CEO



Gokaraju Rangaraju Institute of Engineering and Technology

Department of Civil Engineering

Time-Table for Value Added Course AY: 2021-22 (II-Semester)

wef: 16th Nov 2021

Day	9:00AM to 4:00 PM
Tuesday	VAC (IOT Projects- Basic Building Blocks)
Wednesday	
Thursday	
Friday	
Saturday	

Sub. Code	Sub.Shortform	Subjects	Speaker Name
	IOT(BBB)	IOT Projects- Basic Building Blocks	Prof. A Radhanand, Dept of ECE Prof. K. N Balaji Kumar, Dept of ECE


HOD-CE

About Department

The Department of Civil Engineering is established in the year 2008, with an intake of 60 students. It is a fast-growing discipline in tune with the infrastructure growth.

The department has master's program in Structural Engineering, established in the year 2014 with an intake of 18 students which is further increased to 30 students from the academic year 2017. The department has well equipped laboratories with an emphasis on practical skills and fundamentals. The Department has well experienced and talented faculty which includes nine doctorates.

About Value Added Course

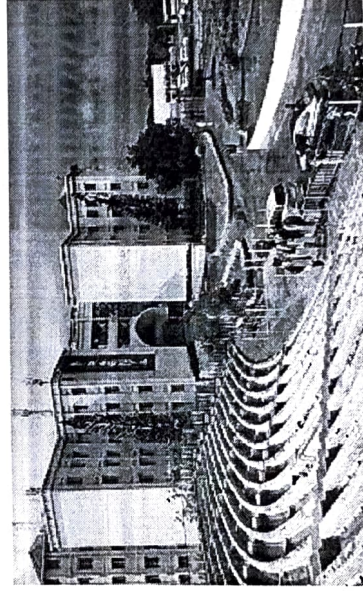
Value added course on IoT & its applications are designed for increasing the demand for "Internet of Things". During this course, the candidate is going to be tutored on each different applications based on IOT which is needed for the basic understanding of IOT applications in civil engineering

As this course targets students who is enthusiastic to know about "what is IoT", the scope, benefits and effects of IoT on numerous digital technology and devices. Here participant will learn the mechanism of Machine to Machine (M2M) communication, understanding of IoT system, industrial net and IoT on cloud.

About GRIET

Gokaraju Rangaraju Institute of Engineering and Technology (GRIET) is established in 1997 by Dr. G Gangaraju as a self-financed institute under the aegis of Gokaraju Rangaraju Educational Society. GRIET is approved by AICTE, New Delhi, permanently affiliated to and autonomous under JNTUH, Hyderabad. GRIET is committed to quality education and is known for its innovative teaching practices.

The mission of GRIET is to achieve and impart quality education with an emphasis on practical skills and social relevance. Presently GRIET has 9 UG and 6 PG programs. The college is NBA accredited in CE, CSE, ECE, EEE, IT, and ME. CSBS, AI&ML, DS are new programs. The institute is accredited by NAAC with 'A++' grade.



GOKARAJU RANGARAJU

INSTITUTE OF ENGINEERING AND TECHNOLOGY
(Autonomous)

Bachupally, Kukatpally, Hyderabad-500090.
Telangana, India. www.griet.ac.in



GOKARAJU RANGARAJU

INSTITUTE OF ENGINEERING AND TECHNOLOGY
(Autonomous)

Value Added Course on

on

IOT Projects – Basic Building Blocks

16 - 20 November 2021

Organized by

Department of Civil Engineering

Gokaraju Rangaraju

Institute of Engineering and Technology

Bachupally, Kukatpally, Hyderabad-500090

Website: www.griet.ac.in

Patron

Sri. G.V.K. Ranga Raju, Vice President, GRES

Patron

Mr. M. G. Sekharam, CEO, GRES

Dr. Jandhyala N. Murthy, Director, GRIET

Dr. Praveen Jugge, Principal, GRIET

Dr. K.V.S. Raju, SAO, GRIET

Convenor

Dr. C. Lavanya

Professor & HoD, Civil Engineering
GRIET

Coordinator

Dr. K. Srikanth

Associate Professor, Civil Engineering
GRIET

Recurse Persons

Prof. A Radhanand, Department of ECE

Prof. K. N Balaji Kumar, Department of ECE

Course content

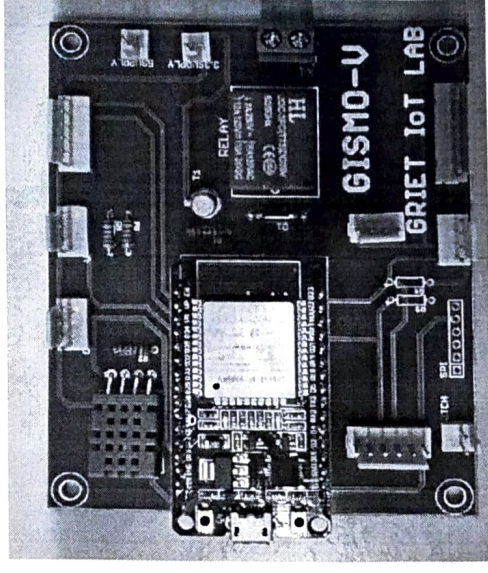
Hands-on training on all the building blocks of IoT projects using GISMO-V board with the following resources:

- ESP32- 32 bit microcontroller with built-in WiFi and Bluetooth
- Temperature and humidity sensor
- Soil moisture sensor
- Ultrasonic sensor
- Door/Window open detection sensor
- Graphic display
- Relay

The participants will build multiple IoT projects with the following basic building blocks:

- Sensor interface
- Local display of sensor values
- Connection to Internet
- Pushing/pulling data to and from cloud database
- Mobile app with cloud database connectivity

An introduction to AWS(Amazon Web Services) IoT core and an IoT project using GISMO-V and AWS IoT Core will form part of the training



Registration

Free Registration for the Value-Added Course

Certification charges: Rs. 200/-

Expected Outcome

This course will help students to learn the basic building blocks of IoT projects and external and extended the learning to projects in the civil engineering domain

IEEE SKILL CONNECT IoT Program

Google Firebase

- Creation of Google Firebase real-time database
- Credentials of the database
- Pushing data from Arduino framework to Firebase

IEEE SKILL CONNECT IoT Program

Google Firebase

Google Firebase Real Time Database is a cloud hosted database

Log in can be done using your Gmail id

The Real Time Database is a NoSQL database and has only key-value pairs

All of the clients share one instance of the database

Firestore Real Time Database credentials –
Host name
Database secret

IEEE SKILL CONNECT IoT Program

Google Firebase



Spark Plan
Free

Realtime Database

Cloud Firestore

Cloud Storage

Cloud Functions

Cloud Scheduler

Cloud Pub/Sub

Cloud Datastore

Cloud Bigtable

Cloud ML Engine

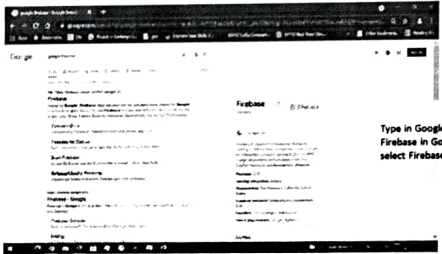
Cloud Vision API

Cloud Vision API

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IEEE SKILL CONNECT IoT Program

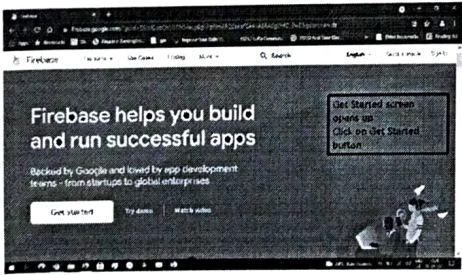
Google Firebase



Type in Google
select Firebase

IEEE SKILL CONNECT IoT Program

Google Firebase

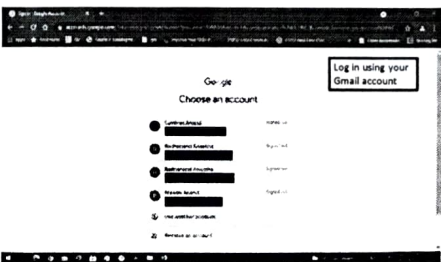


Get Started

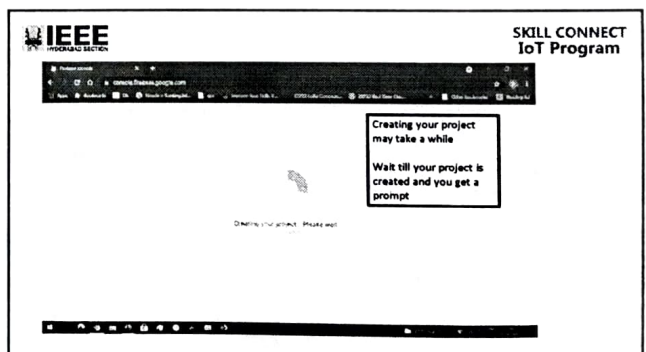
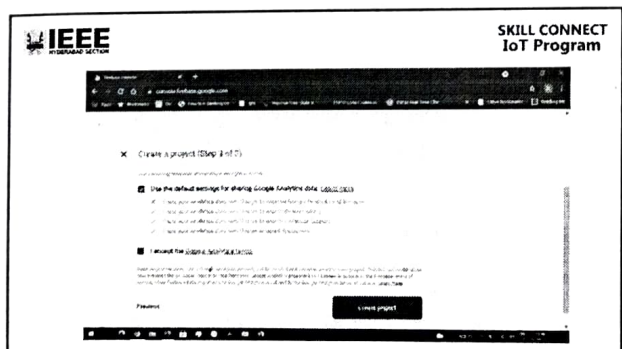
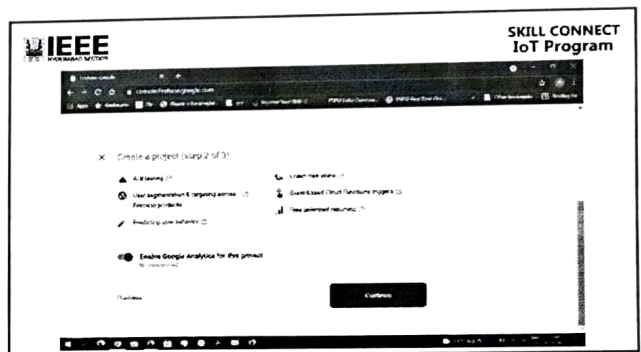
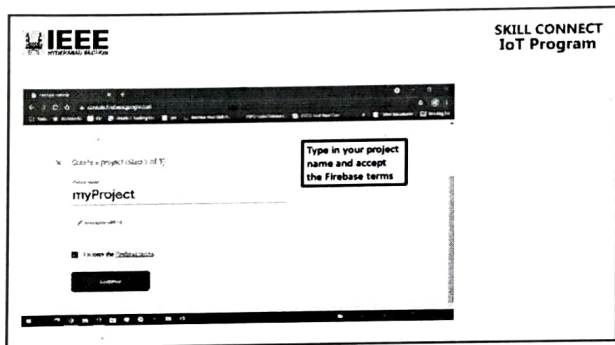
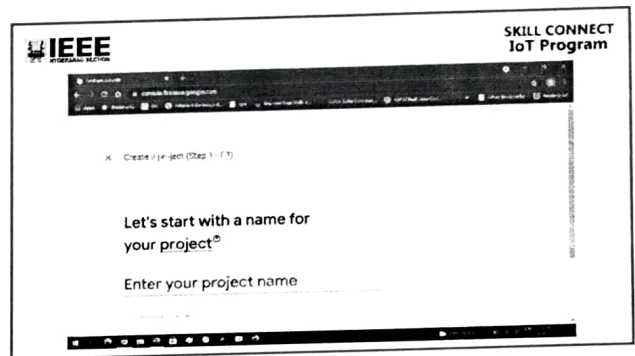
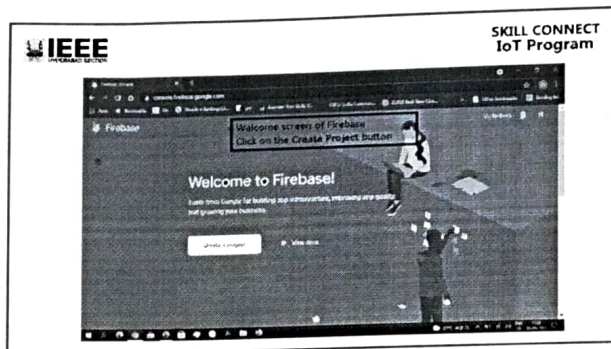
Log in using your Gmail account

IEEE SKILL CONNECT IoT Program

Google Firebase



Log in using your Gmail account

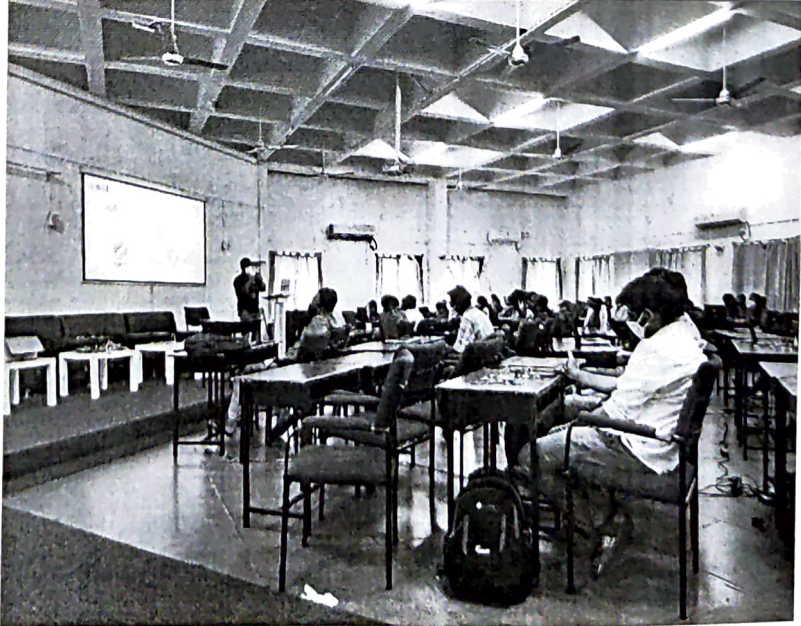




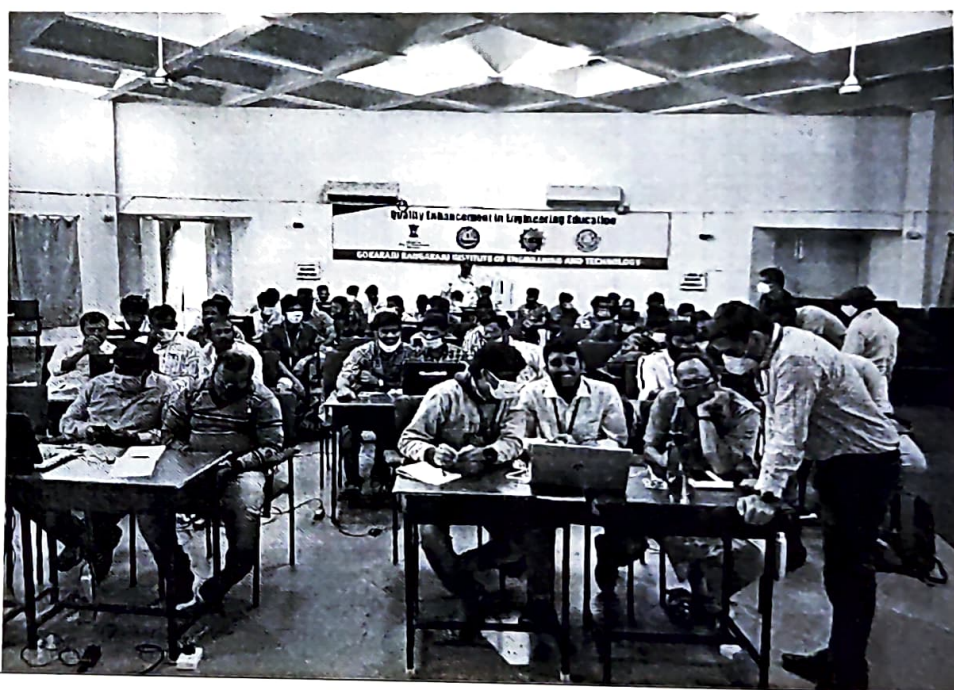
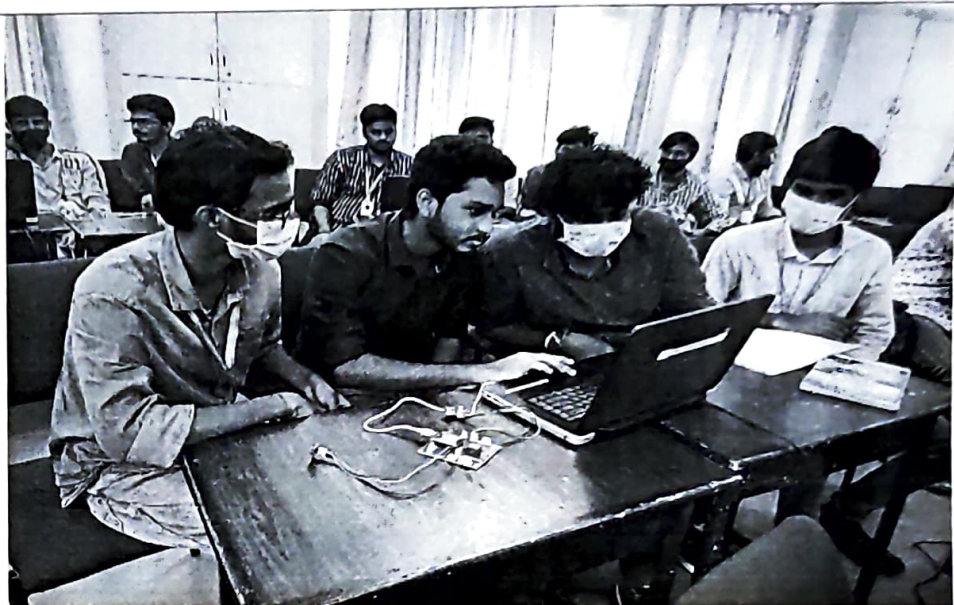
GRIET/6C/G/21-22

EVENT SUMMARY REPORT

GRIET/Other institutes/Organization Address:	GRIET		
Department	Civil Engineering		
Nature of the Event (Co & Extra Curricular Activities-Workshop / Seminar / Guest Lecture / Tech Talk/FDP/GD/ Training Program / Quiz / Any Prof. Body events/Presentation/Conference/ Industry Visit)	Value Added Course		
Title / Theme of the Event	IOT Projects – Basic Building Blocks		
Details of the Coordinator& Designation	Dr C Lavanya Professor& HOD Department of Civil Engineering		
Event Dates/Days	From	To	No. of Days
	16/11/2021	20/11/2021	5
Details of the Speaker / Guest Organization Address:	Prof. A Radhanand, Department of ECE, GRIET Prof. K. N Balaji Kumar, Department of ECE, GRIET		
Participants (Teaching Faculty / Non-Teaching Faculty / Students)	No.of UG students	No.of PG Students	Total Participants
	130	0	130
Faculty Names & Designation	Dr Srikanth Koniki, Associate Professor		

Summary of the Event	Prof. A Radhanand, Department of ECE, GRIET discussed his all sessions by briefing PPT and Hands-on training on all the building blocks of IoT projects using GISMO-V board with the following resources: ESP32- 32 bit microcontroller with built-in WiFi and Bluetooth, Temperature and humidity sensor, Soil moisture sensor, Ultrasonic sensor, Door/Window open detection sensor, Graphic display, Relay. He addressed the basic building blocks of IOT in detail using the above sensors and resources (Collecting the data from sensors, sending the data to cloud services, from cloud services to mobile application) All of the attendees took part in an open conversation and performed well on the assessment test.
IRG (in rupees) Deposited A/C no A/C name and date and other details (enclose proof-A/C statement)	23,200 Principal GRIET, Acc No: 1882241300115 Punjab National Bank
Expenditure (in rupees) (Enclose proof-bills)	
POs attained with this Event (number and description)	b. Analyse problem and interpret the data. c. Design a system component, or process to meet desired needs in Civil Engineering within realistic constraints. d. Identify, formulate, analyse and interpret data to solve Civil Engineering problems. e. Use modern engineering tools such as CAD and GIS for the Civil Engineering practice. j. Work effectively as an individual or in a team and to function on multi-disciplinary context.
Photographs of the event (Hard copy and Soft copy)	

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Proofs:

1. Certificates copies
2. Profile of Speaker
3. PPT/Material as applicable. etc.,

 JYO SYSTEMS

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Institute of Engineering and Technology



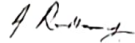
Value Added Course on

IOT Projects – Basic Building Blocks

16 - 20 November 2021

CERTIFICATE

This is to certify that Mr./Ms. T Sanghamithra, Roll. No. 20245A0128, has participated in IOT Projects – Basic Building Blocks Course, organized by GRIET IoT team in association with JYO Systems during academic year 2021-22.



Mr. A Radhanand
Coordinator



Dr. C Lavanya
HoD, CE



Dr. Praveen Jugge
Principal

 JYO SYSTEMS

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Institute of Engineering and Technology



Value Added Course on

IOT Projects – Basic Building Blocks

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CERTIFICATE

This is to certify that Mr./Ms. Pilly Uday Kiran, Roll. No. 20245A0131, has participated in IOT Projects – Basic Building Blocks Course, organized by GRIET IoT team in association with JYO Systems during academic year 2021-22.



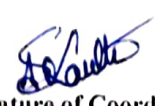
Mr. A Radhanand
Coordinator



Dr. C Lavanya
HoD, CE



Dr. Praveen Jugge
Principal


Signature of Coordinator


Signature of HOD