



DADI INSTITUTE OF ENGINEERING & TECHNOLOGY

Approved by A.I.C.T.E & Permanently affiliated to JNTU GV

Accredited by NAAC with 'A' Grade and Registered u/s 2(f) & 12(B) of UGC Act

An ISO 9001:2015, ISO 14001:2015 & ISO 45001:2018 Certified Institute.

NH-16, Anakapalle - 531002, Visakhapatnam, A.P.

Website: www.diet.edu.in, 9963993229 E-mail: principal@diet.edu.in

Anakapalle,
21-04-2023.

To,


The Principal,
Dadi Institute of Engineering & Technology, Anakapalle
Visakhapatnam-531002

Sub: Request for permission to organize one-day workshop on "IOT using Raspberry PI for Industrial applications": Regarding

Respected sir,

I am herewith requesting you to give permission to organize a one-day workshop for the students of B. Tech EEE Branch II Year, III year and IV year on "IOT using Raspberry PI for Industrial applications" to create awareness and knowledge on the concern topic in the meantime on 29th April 2023, please extend your kind cooperation in this regard.


Dadi Institute of
Engineering & Technology
ANAKAPALLE - 531 002.


Organize Team
(R&D Co-ordinator
EEE dept)



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Website: www.diet.edu.in, 9963694444 E-mail: info@diet.edu.in, academics@diet.edu.in

Date: 21-04-2023.

CIRCULAR

This is to inform to all the B. Tech II year, III Year and IV year EEE students that Department of Electrical and Electronics of Dadi Institute of Engineering and Technology is going to organize one day Workshop Programme on the **IOT using Raspberry PI for Industrial applications** on **29th April , 2023**. So all the B. Tech II, III and IV Year EEE students are informed to attend the Programme.

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Report on

A One Day Workshop on

"IoT using Raspberry Pi for Industrial Applications, 29th April 2023

(Department of Electrical and Electronics Engineering, Dadi Institute of Engineering and Technology, Anakapalle, Andhra Pradesh)

A. Workshop Background Information & Objectives:

The Internet of Things (IoT) is rapidly transforming the way we live, work, and interact with our environment. It is a network of connected devices that can communicate with each other and with the internet, making it possible to collect and analyze data in real-time. Raspberry Pi is a small, affordable computer that can be used to create IoT devices, making it a popular choice for developers and hobbyists alike. Here are some of the reasons why IoT using Raspberry Pi is important:

1. **Cost-effective:** Raspberry Pi is an affordable computer, making it an excellent choice for IoT projects that require multiple devices. It allows developers to build low-cost solutions that can be scaled up easily.
2. **Flexibility:** Raspberry Pi is a versatile platform that can be used for a wide range of IoT applications, from home automation to industrial monitoring. It can be programmed in several languages, including Python, which is a popular language for IoT development.
3. **Accessibility:** Raspberry Pi is easy to set up and use, making it accessible to developers and hobbyists of all skill levels. It comes with a user-friendly operating system and a wide range of software tools, making it easy to get started with IoT development.
4. **Connectivity:** Raspberry Pi has built-in Wi-Fi and Bluetooth connectivity, making it easy to connect to other devices and the internet. This makes it an excellent choice for IoT projects that require remote monitoring and control.

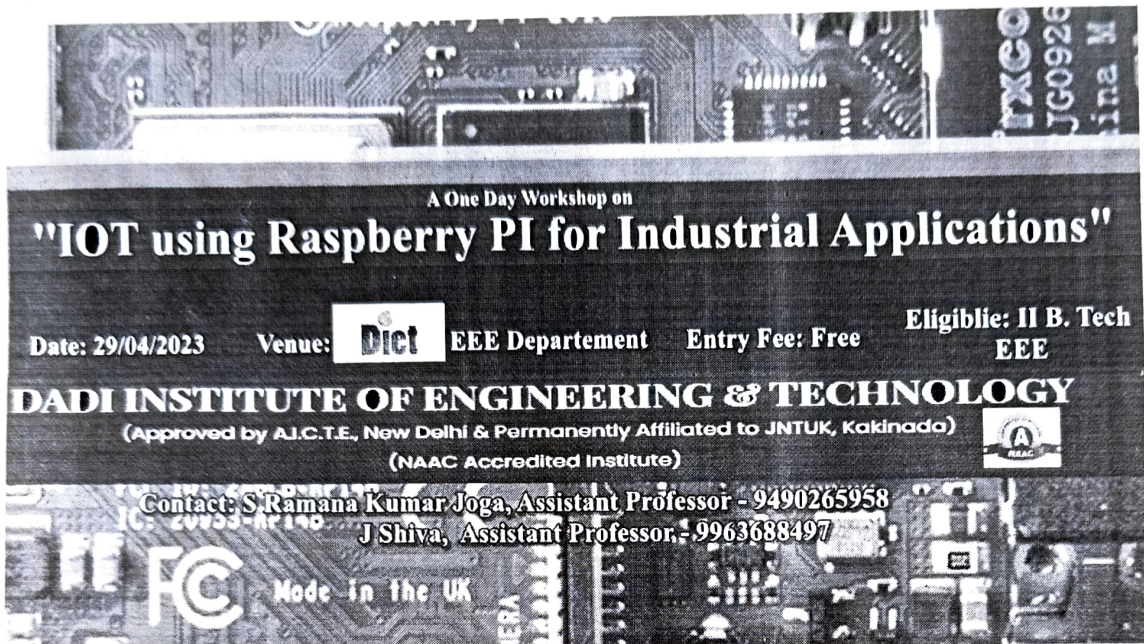
Overall, IoT using Raspberry Pi is important because it enables the development of cost-effective, flexible, accessible, and secure IoT solutions for a wide range of applications. It has the potential to transform industries, improve efficiency, and enhance the quality of life for people around the world.

Venue: EEE Department, Dadi Institute of Engineering and Technology, Anakapalle, Andhra Pradesh

Date: 29-04-2023

Resource Person: Vedula Sudhakar, Assistant Professor, EEE Department, Dadi Institute of Engineering and Technology, Anakapalle, Andhra Pradesh

Flyer:



A One Day Workshop on
"IOT using Raspberry PI for Industrial Applications"

Date: 29/04/2023 Venue: **Dadi** EEE Department Entry Fee: Free Eligible: II B. Tech EEE

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(NAAC Accredited Institute)

Contact: S.Ramana Kumar Joga, Assistant Professor - 9490265958
J Shiva, Assistant Professor - 9963688497

B. Summary:

On 29th April 2023, EEE Department, Dadi Institute of Engineering and Technology, Anakapalle, Andhra Pradesh has conducted a workshop on **IOT using Raspberry PI for Industrial Applications**.

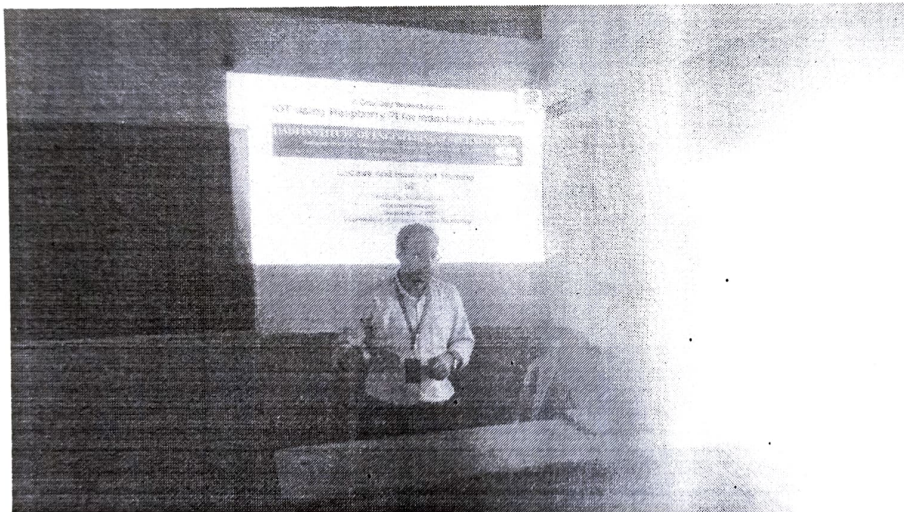
The workshop would likely begin with an overview of IoT and its potential applications, as well as an introduction to the Raspberry Pi, a popular microcontroller platform that can be used for building IoT devices. Participants would learn how to set up the Raspberry Pi and connect it to various sensors and actuators, which would enable them to gather data and control physical devices. The workshop would then move on to more advanced topics, such as programming the Raspberry Pi using Python or other programming languages, and working with different communication protocols, such as Bluetooth, Wi-Fi, or MQTT. Participants might also learn how to interface the Raspberry Pi with cloud services, such as Amazon Web Services or Microsoft Azure, in order to store and analyze data or control devices remotely.

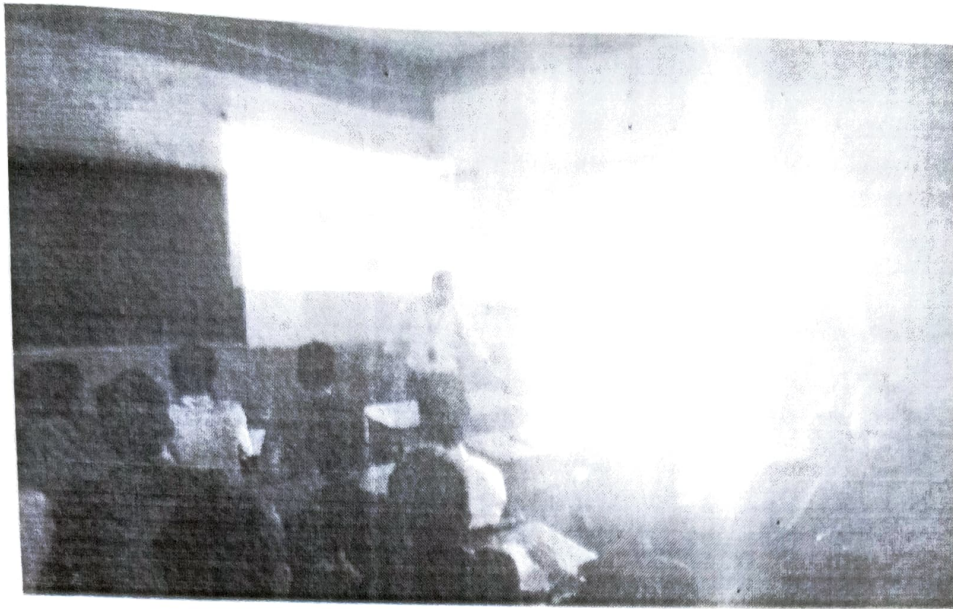
The main highlights of the workshop are given below:

1. Different types of Raspberry PI board such as Raspberry Pi 4 8GB RAM, Raspberry Pi 3 Model B+ Motherboard, Raspberry Pi 3 A+ Computer Board (Power supply, clock speed, Digital I/O, Analog Input, PWM modulation and different kinds of interfacing).
2. Wi-Fi module Programming with Raspberry PI.
3. Interfacing of sensors and uploading data on cloud.

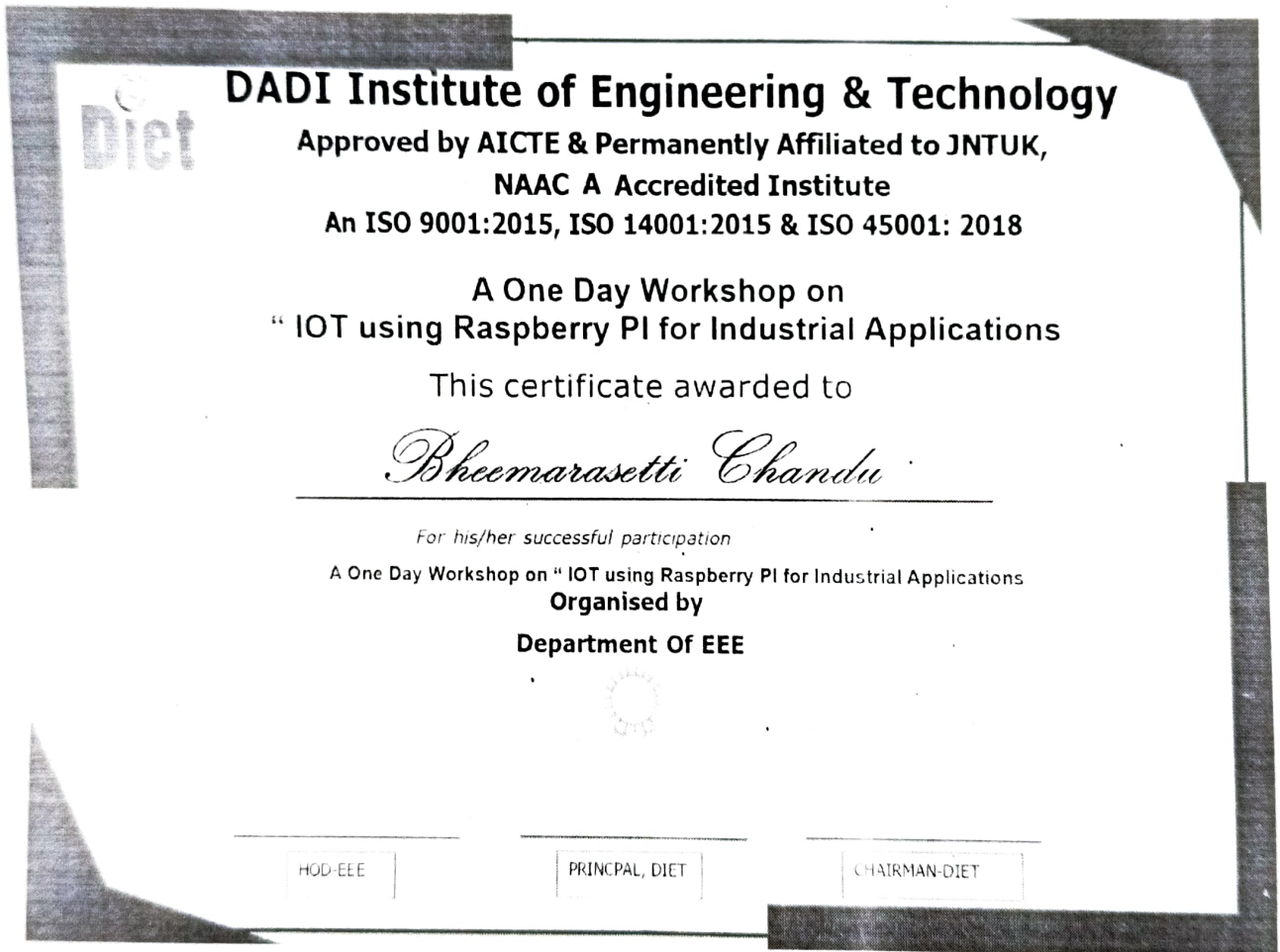
4. For Interfacing different types of sensors with Arduino and Arduino with data base, different programming steps have been discussed (function, statement control statement levels variables, math, pin mode, serial mode, digital mode variable, delay and for loop)
5. Interfacing and controlling various devices like LED, motors, sensors etc with Raspberry PI.
6. Four examples have been taken as a hands-on such as LED glow, Switch sensing, Temperature display, small motor controlling.
7. Total 50 students have participated.
8. At valedictory ceremony, the participants were awarded the certificates and provided with the kit to continue their journey with IoT. Also competitive handson problem has been given to the students they performed very well and two groups have been identifying for extra ordinary effort. The ceremony and function came to an end with a group photo session

Photos:





Certificate Samples of Participants:



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A One Day Workshop on " IOT using Raspberry PI for Industrial Applications

This certificate awarded to

Botcha Shravani Kumari

For his/her successful participation

A One Day Workshop on " IOT using Raspberry PI for Industrial Applications
Organised by

Department Of EEE



HOD-EEE

PRINCIPAL, DIET

CHAIRMAN-DIET

Sup
Co-Ordinator

Botcha Shravani Kumari (Joga)
HOD - EEE
Department of Engg. & Tech
Anakapalle - 531002

Ana
HOD EEE 4/5/23

(DR. ASLK
Cupalamma)
Head of the Department
Electrical & Electronics
Dadi Institute of Engg. & Tech
Anakapalle - 531002



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Participants list

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20U41A0203	PEYYALA MOHAN	
20U41A0205	KASIREDDY SAI YASWANTH	
20U41A0206	SIYYADRI JAGAN KUMAR	
20U41A0207	BODDAPU MANIKANTA	
20U41A0208	GANTA VISWESWARA RAO	
20U41A0209	GEDDAM BHARATHI	
21U45A0238	YAMANA KIRANMAYE	
21U45A0239	ADARI SAIKUMAR	
21U45A0240	Amarapini Kushal	
21U45A0241	BAKI KURMAREDDY	
21U45A0242	BETHA BALAJI	
21U41A0201	BHEEMARASETTI CHANDU	
21U41A0202	BOTCHA SHRAVANI KUMARI	
21U41A0203	KANTAM REDDY BALA	
21U41A0204	MUDUNURU KALYAN	
21U41A0205	PALAKA SOWMYA	
21U41A0206	PAPPALA YASWANTH	
21U41A0207	KAMBAPU SIDDARDHA REDDY	
21U41A0208	POLAMARASETTI PURNA GANESH	
21U41A0209	YEGIREDDY SIRISHA	
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22U45A0202	BALASA DILESH MADHAV	
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