



DADI INSTITUTE OF ENGINEERING & TECHNOLOGY
(Approved by A.I.C.T.E., New Delhi & Affiliated to JNTUK, Kakinada)

A NAAC Accredited Institute

n ISO 9001:2008; ISO 14001:2004 & OHSAS 18001:2007 Certified Institution

NH-5, Anakapalle – 531002, Visakhapatnam, A.P.

Mobile: +91 9963981111, Website: www.diet.edu.in, E-mail: info@diet.edu.in

Date: 25-10-2018

Anakapalle

To
The Principal,
Dadi Institute of Engineering & Technology
Anakapalle, Visakhapatnam.

Sub: Request for Approval to conduct Faculty Development Program (FDP) on Real Time Embedded Systems & IoT, Its Applications – Reg

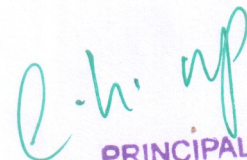
Respected Sir,

Research & Development Center is proposing to conduct a Faculty Development Program (FDP) on Real Time Embedded Systems & IoT, and Its Applications. In this regard, we request you to give approval to conduct this event from 29/10/2018 to 03/11/2018.

Thank You Sir,

Yours faithfully


R&D Convenor


PRINCIPAL
Dadi Institute of
Engineering & Technology
ANAKAPALLE - 531 002



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Circular

This is to inform all the Teaching, Non Teaching and Technical staff that the Research & Development Center is conducting Faculty Development Program (FDP) on Real Time Embedded Systems & IoT, and Its Applications from 29/10/2018 to 03/11/2018. Faculty members are requested to participate in the event.

A handwritten signature in black ink, appearing to be "K. A. K.", is written above the name of the R&D Convenor.

R&D Convenor



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FACULTY DEVELOPMENT PROGRAMME (FDP)

ON

**Real Time Embedded Systems &
IoT , Its Applications**

(29th Oct - 3rd Nov, 2018)

Organized by

Department of EEE & ECE

In Association with

National Institute of

Technology, Warangal. (Under

the Scheme of Electronics &

ICT Academy)

Report on the Faculty Development Program (FDP)

About FDP:

In its pursuit of excellence in technical education Dadi Institute of Engineering & Technology, Visakhapatnam in association with National Institute of Technology – Warangal under the scheme of Electronics & ICT Academy organized a one week Faculty Development Program (FDP) for the faculty of Department of Electrical & Electronics Engineering and Electronics & Communications Engineering on "Real Time Embedded Systems & IoT , Its Applications" during 29th Oct to 03rd Nov-2018. The FDP aims to enhance and strengthen the percolation of state of art technologies amongst the institutional faculty as well as the interested faculty of other colleges of Andhra Pradesh.

About Electronics & ICT Academy:

The Electronics and ICT Academy provides specialized training to the faculty of Engineering, Arts, Commerce & Science colleges, Polytechnics etc., by developing state-of-the-art facilities.

About Dadi Institute of Engineering & Technology(DIET):

Dadi Institute of Engineering & Technology (DIET), established in the year 2006 is the top ranked institute approved by AICTE, and affiliated to JNTUK. The Institute is NAAC accredited, ISO Certified and also associated with many international professional bodies. DIET imparts quality Education with a disciplined career enriched by moral values and ethical standards. DIET offers B.Tech., M.Tech., MBA and diploma courses. *visit www.diet.edu.in*

Lecture Schedule:

Date	9AM – 11AM			11.15AM– 01:15 PM		2.00PM-5.00PM
29.10.2018	9AM-10AM	Introduction to Embedded Systems (Dr J Ravi Kumar)		At mega16/ 328 Microcontroller Architecture (Dr J Ravi kumar)		Introduction to Sensors and Actuators (Dr J.R.K)
30.10.2018	Interfacing I/O s to Audrino (Dr J.R.K)			Interfacing Bluetooth Module to Audrino (Dr J.R.K)		Implementing IOT application using Arduino Board LAB (Dr J.R.K)
31.10.2018	Introduction to Raspberry Pi, and Architecture and Basic Pinout (Mr Madhu, ORL)		T e a	Python Programming, Basic concepts and syntaxes in Python. (Mr Madhu, ORL)	n c h	Getting Started with RPi, and Booting OS, Configuration of RPi (Mr Madhu, ORL)
01.11.2018	Interfacing sensors, and reading data from sensors with Raspberry Pi		B r e a	MQTT Protocol, and Gateway Implementation over Wireless Network (Mr Madhu, ORL)	B r e	Socket communication, building an IoT Gateway (Mr Madhu, ORL)
02.11.2018	ARM Architecture (Dr M.D Farukh Hashi)		k	Zync Architecture (Dr M.D FarukhHashi)	a k	Image Processing using Raspberry Pi, IOT Applications, (Dr Satish , NITW)

<p>03.11.2018</p>	<p>Internet of Things Real time implementation Issues</p> <p>Dr Rasmi Ranjan Rout</p>	<p>Wireless communication technologies and protocols for IoT</p> <p>Dr Rasmi Ranjan Rout</p>	<p>IOT based route congestion monitoring A Case Study</p> <p>Dr Rasmi Ranjan Rout</p>	<p>Valedictory</p>
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Speakers

Dr Ravi Kumar Jatoth, Associate Professor , ECE Dept Sri

Madhu, Orange Research labs-Hyd

Dr Dr M.D Farukh Hashi, Assistant Professor , NITW Dr

M. Satish, Assistant Professor , NITW

Dr Rasmi Ranjan Rout , Associate Professor , NITW

Inauguration:

The inauguration of the FDP was done in the Seminar Hall 2, DIET Campus on 29-10-2018 at 9.30 AM with the lighting of the lamp. The dignitaries of the Inaugural Function included Prof. Dr. R.Rajeswara Rao, Head , Dept. of CSE, JNTUK-Vizianagaram, as the Chief Guest, Dr.J.Ravi Kumar, Coordinator & Associate Professor, NIT Warangal, as the Guest of Honour. Sri Dadi Ratnakar, Honourable Correspondent also graced the occasion. Prof. Dr. Ch.S.Naga Prasad, Principal, Prof. Dr. L. Prasanna Kumar, HOD, CSE & Coordinator-FDP, HoD's of other departments, faculty and 45 participants from various institutes participated in the inaugural function.



Fig 1: Lightning of the lamp by Prof. Dr. R.Rajeswara Rao, Chief Guest, Dept of CSE, JNTUK- Vizianagaram



Fig 2: Lighting of the lamp by Guest of Honor, Dr.J.Ravi Kumar, Assoc. Prof - NITW



Fig 3:Felicitation to the Chief Guest Prof. Dr. R.Rajeswara Rao, Head, Dept of CSE, JNTUKCE-Vizianagaram.



Fig 4: Felicitation to the Guest of Honour Dr.J.Ravi Kumar, Coordinator-FDP & Assoc. Prof - NITW

Day Wise Program Details

Day-1: FDP on " **Real Time Embedded Systems & IoT , Its Applications** " - Dept of EEE & ECE 29th Oct 2018

Resource Person: Dr.J.Ravi Kumar, Coordinator-FDP & Assoc.Prof-NITW

Topics Covered:

Dr.J.Ravi Kumar, Coordinator-FDP & Assoc.Prof-NITW, delivered A lecture on " Introduction to Embedded Systems & Introduction to Sensors and Actuators with Hands On" from 10:30 AM to 5:30 PM in Computer Lab-1. All 45 participants were thoroughly engrossed in the lecture and learned with enthusiasm and due hands-on experience in the laboratory.



Fig 5 :**Day-2:** FDP on " **Real Time Embedded Systems & IoT , Its Applications** " - Dept of EEE & ECE - 30th Oct 2018.

Resource Person : Dr.J.Ravi Kumar, Coordinator-FDP & Assoc.Prof-NITW

Topics Covered: Interfacing I/O s to Audrino, Interfacing Bluetooth Module to Audrino, Implementing IOT application using Arduino Board LAB

Dr.J.Ravi Kumar, Coordinator-FDP & Assoc.Prof-NITW, delivered A lecture on " **Interfacing I/O s to Audrino, Interfacing Bluetooth Module to Audrino, Implementing IOT application using Arduino Board LAB** " from 9:00 AM to 5:30 PM in Computer Lab-1. The lecture was quite informative and interesting and the participants learned content with lots of enthusiasm and hands-on experience in the laboratory.

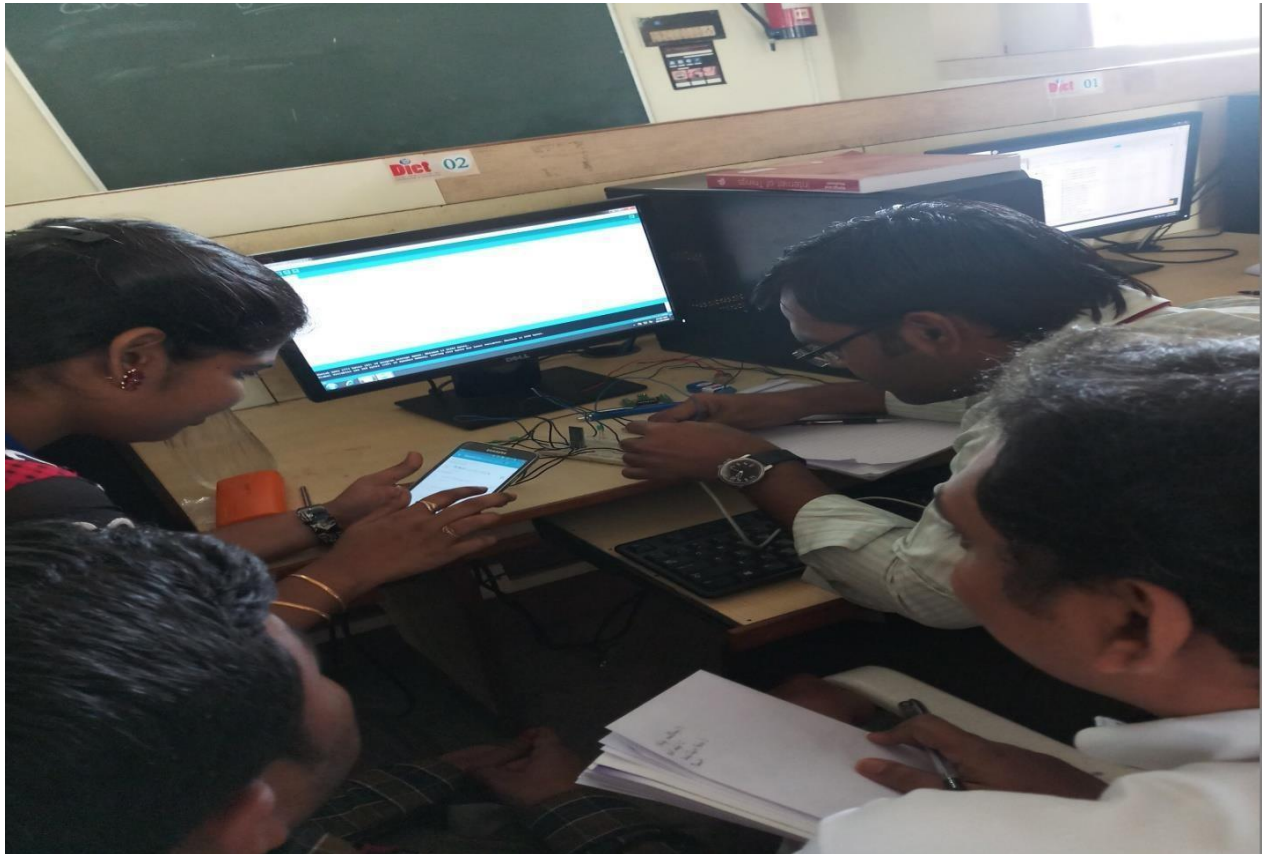


Fig 6 :Hands on Arduino Boards setup by participants

Day 3 - FDP on " Real Time Embedded Systems & IoT , Its Applications " - Dept of EEE & ECE - 31st Oct 2018.

Resource Person: Mr.Parvathaneni Madhu, Industry Expert from Orange Research Labs-Hyd.

Topics Covered: Introduction to Raspberry Pi, and Architecture and Basic Pin out, Python Programming, Basic concepts and syntaxes in Python, Getting Started with RPi, and Booting OS, Configuration of RPi

Mr.Parvathaneni Madhu, Industry Expert from Orange Research Labs-Hyd delivered lecture on " Introduction to Raspberry Pi, and Architecture and Basic Pinout, Python Programming, Basic concepts and syntaxes in Python, Getting Started with RPi, and Booting OS, Configuration of RPi " from 9:00 AM to 5:30 PM in Computer Lab-1. All the participants could get the feel of ease of using RPi boards and interfacing.

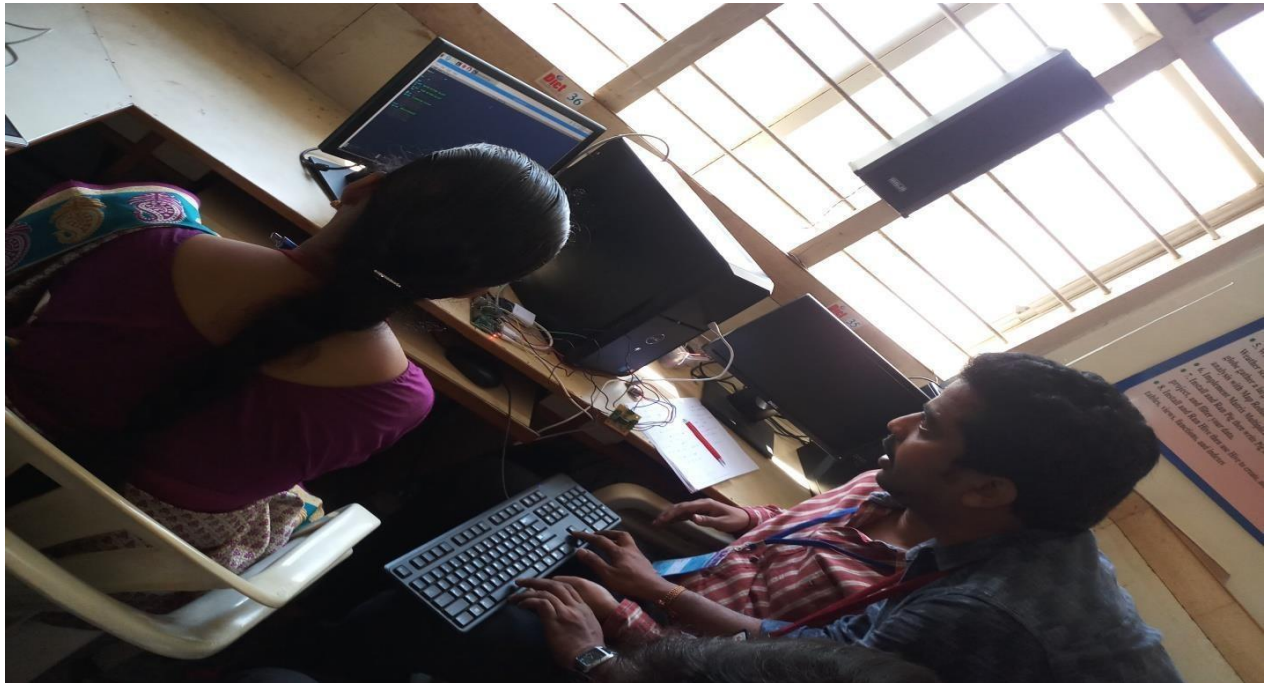


Day 4 - FDP on " Real Time Embedded Systems & IoT , Its Applications " - Dept of EEE & ECE - 1st Nov 2018

Resource Person: Mr.Parvathaneni Madhu, Industry Expert from Orange Research Labs-Hyd.

Topics Covered: Interfacing sensors, and reading data from sensors with Raspberry Pi, MQTT Protocol, and Gateway Implementation over Wireless Network, Socket communication, building an IoT Gateway.

Mr.Parvathaneni Madhu, Industry Expert from Orange Research Labs-Hyd, delivered his highly informative lecture on " Interfacing sensors, and reading data from sensors with Raspberry Pi, MQTT Protocol, and Gateway Implementation over Wireless Network, Socket communication, building an IoT Gateway " and conducted lab Session on RPi boards from 9:00 AM to 5:30 PM in Computer Lab-1.



Day 5 - FDP on " Real Time Embedded Systems & IoT , Its Applications " - Dept of EEE & ECE - 2nd Nov 2018

Resource Person-1 : Dr. M.Satish, Asst. Prof, NITW

Resource Person-2 : Dr. M.D Farukh Hashi, Asst. Prof, NITW.

Topics Covered: ARM Architecture, Zync Architecture, Image Processing using Raspberry Pi, IOT Applications.

Dr. M.Satish, Asst. Prof, NITW, delivered a lecture on " Image Processing using Raspberry Pi, IOT Applications " from 9:00 AM to 1 PM in Computer Lab-1. The session was highly interactive and quite interesting.

Dr. M.D Farukh Hashi, Asst. Prof, NITW, delivered a lecture on " ARM Architecture, Zync Architecture " from 1.30PM to 5.30 PM in Computer Lab-1. The session was highly interactive and quite interesting.



Day 6 - FDP on Real Time Embedded Systems & IoT , Its Applications " - Dept of EEE & ECE - 3rd Nov 2018

Resource Person: Dr Rasmi Ranjan Rout , Associate Professor, NITW.

Topics Covered: Internet of Things Real time implementation Issues, Wireless communication technologies and protocols for IoT, IOT based route congestion monitoring A Case Study

Dr Rasmi Ranjan Rout, Associate Professor, Dept of CSE, NIT, Warangal delivered a Lecture on " Internet of Things Real time implementation Issues, Wireless communication technologies and protocols for IoT " from 9.30AM AM to 5:45 PM in Computer Lab-1. The speaker could hold the interest of the participants even towards the end of the FDP.



Assessment Test on 02-11-2018:

Dr. M.Satish, Asst. Prof, Asst.Prof, Dept.of ECE, NIT, Warangal, conducted a written assessment Test to assess performance of the participants.



Outcome of the Six Day FDP:

Faculty from more than 12 Engineering Colleges participated in the FDP and had a wonderful experience of obtaining hands-on learning of the State of Art technology with highly comfortable infrastructural facilities.



Fig 7 :Group photo with All participants



List of Participants:

S.No	Name	Designation	Department
1	Prof. Dr. Ch. Naga Prasad	Principal	
2	Dr.K. Rama Rao	Professor & DEAN	
3	Dr. K.S.Eswara Rao	Professor & Vice-Principal	
4	Dr.Ch.Prabhakara Rao	Professor	H&BS
5	Dr.Ch.Nageswara Rao	Associate Professor	H&BS
6	Mr.Penta Appa Rao	Sr Assistant Professor	H&BS
7	Mr.Thanakala Rama Kanaka Pydiraju	Assistant Professor	H&BS
8	Mr.Nodagala Ramakumar	Assistant Professor	H&BS
9	Mrs.Malla Lalitha	Associate Professor	H&BS
10	Mrs.D Swapna	Assistant Professor	H&BS
11	Mrs.Madhuri Pulavarthi	Assistant Professor	H&BS
12	Mr.K Murali	Assistant Professor	H&BS
13	Mr.Y Someswara Rao	Assistant Professor	H&BS
14	Ms.Chaya Kalpana Preethi Botcha	Assistant Professor	H&BS
15	Mr.Venkata Murali Palla	Sr Assistant Professor	H&BS
16	Ms.Vanaja Sivalanka	Assistant Professor	H&BS
17	Mr.Souparni Panigrahi	Assistant Professor	H&BS
18	Mrs.Varaha G S Srujana S	Assistant Professor	H&BS
19	Mr.Ummadi Mahesh	Assistant Professor	H&BS
20	Dr. Hari Krishna Karanam	Professor & HOD	CIVIL
21	Mrs. Usha Rani Bhupathi	Assistant Professor	MECHANICAL
22	Ms. Padmaja Karrothu	Assistant Professor	MECHANICAL
23	Mr M RVSG Gupta	Assistant Professor	CIVIL
24	Mr.P Lakshmi Narayana	Associate Professor	MECHANICAL
25	Ms J B S Bharathi	Assistant Professor	CIVIL
26	Ms Vepuri Aivelu Mangamma	Assistant Professor	CIVIL
27	Mr.D Atchuta Ramacharyulu	Assistant Professor	CIVIL
28	Mr. Kollepara Santhosh	Assistant Professor	CIVIL
29	Mrs. Bandhikana Ramya	Assistant Professor	CIVIL
30	Mr. Seshagiri Rao Boddu	Assistant Professor	CIVIL
31	Ms Paidiseti Uma	Assistant Professor	CIVIL



32	Mrs Padadalam Lavanya	Assistant Professor	CIVIL
33	Ms Palaparathi Lavanya	Assistant Professor	CIVIL
34	Dr. L. Prasanna Kumar	Associate Professor & HOD	CSE
35	Dr. Karimisetty Sujatha	Professor	CSE
36	Mr. A.Vasudeva Rao	Associate Professor	CSE
37	Mr.V.Srinivas	Associate Professor	CSE
38	Mr. K.Nuka Raju	Associate Professor	CSE
39	Mr. P.S.V.S.V. Ramaraju	Sr. Assistant Professor	CSE
40	Mrs. K. SriLakshmi	Associate Professor	CSE
41	Mr.Y.Dinesh Kumar	Assistant Professor	CSE
42	Mrs. K.Komali	Assistant Professor	CSE
43	Ms. D. Harshitha	Assistant Professor	CSE

Feed Back:

1.Which type of programmes do you expect in future?

2.How do you rate today's Sessions?

- a)Poor
- b)Average
- c)Good
- d)Excellent



Sample Certificate of FDP:


Ministry of Electronics and
Information Technology
Government of India

ELECTRONICS & ICT ACADEMY
NATIONAL INSTITUTE OF TECHNOLOGY WARANGAL, (T.S.), INDIA
and
DADI INSTITUTE OF ENGINEERING AND TECHNOLOGY,
ANAKAPALLE, VISAKHAPATNAM



Participation Certificate

This is to certify that.....
From.....
Has participated in MeitY, Govt. of India, Sponsored one week Faculty Development Programme (FDP) on
“Real Time Embedded Systems and IoT, Its Applications” Organized by the E & ICT Academy, National
Institute of Technology, Warangal at **Dadi Institute of Engineering and Technology** from 29th October -
3rd November, 2018.
Participant performance is satisfactory.

Dr. L.P. Kumar	Dr. J. Ravi Kumar	Dr. Ch.S. Naga Prasad	Prof. D.V.L.N. Somayajulu	Prof. N.V. Ramana Rao
Coordinator & HOD-CSE, DIET, Anakapalle	Coordinator, NIT, Warangal	Principal DIET, Anakapalle	Chair, E & ICT Academy, NIT, Warangal	Director, NIT, Warangal



Faculty Development Programme

on
RealTime Embedded Systems & IoT, Its Applications

29th Oct - 3rd Nov 2018

Organized by :



Department of ECE & EEE



in association with

National Institute of Technology, Warangal

(Under the Scheme of Electronics & ICT Academy)



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Department of EEE & ECE

Cordially invite you to attend the

Inaugural function

of

FACULTY DEVELOPMENT PROGRAMME

(29-10-2018 to 03-11-2018)

on

**“REAL TIME EMBEDDED SYSTEMS & IoT -
ITS APPLICATIONS”**

In association with

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL

Under the scheme of Electronics & ICT Academy

(Sponsored by Department of Electronics and Information Technology (DeitY)-GOI)

On 29th October 2018 (Monday) at 9.30 am.

Chief Guest:

Dr. R. RAJESWARA RAO

Prof & Head of the Department, CSE
JNTUKCE, VIZIANAGARAM

Guest Of Honor:

Dr. J. RAVIKUMAR

Assoc. Prof., Department of ECE
NIT, WARANGAL

Venue: Seminar Hall -2

With Best Compliments:

Sri K. Jogi Naidu
HOD-ECE

Sri K. Vijay Kumar
HOD-EEE

Dr. L. Prasanna Kumar
HOD-CSE

Dr. CH.S. Naga Prasad
PRINCIPAL