TULSIRAMJI GAIKWAD-PATIL College of Engineering and Technology
Wardha Road, Nagpur - 441108
Accredited with NAAC A+ Grade
Approved by AICTE, New Delhi, Govt. of Maharashtra
(An Autonomous Institute Affiliated to RTM Nagpur University, Nagpur)

Department of Electronics and Communication Engineering

Date: 31/07/2023

Report

Aim:

Two days hands on workshop on Internet of Things (IOT)

Introduction

The Department of Electronics & Communication Engineering, Tulsiramji Gaikwad Patil College of Engineering and Technology organized two days Workshop on "INTERNET OF THINGS" on 21/07/2023 and 22/07/2023.

"If you think that the internet has changed your life, think again. The IOT is about to change it all over again!" Internet of Things is a new revolution of the Internet. A world where the real, digital and the virtual are converging to create smart environments that make energy, transport, cities and many other areas more intelligent. A device become a smart device is called IOT. Now a days there are many android and server based application. All the faculty and staff members actively participated in the event to make it a grand success.

Workshop began with traditional lamp lightening and a prayer and Felicitation giving sapling of Guests Mrs. Neema Ukani Director, NU Intelligence Pvt. Ltd. Nagpur, Mr. Sandeep Sonaskar, Expert in IOT & Embedded System and Ms. Swapnali Tagde, Expert in IoT & Embedded System

Mrs Neema cleared all the doubts regarding IoT its advance courses and opportunities for research in the field of IoT. This session was very interactive with students trying out a diverse set of applications in IoT. The session ended with distribution of Certificate to participated students. Dr.Mohan Gaikwad –Patil Chairman GPG, Mr.Akash Gaikwad-Patil Vice Chairman, Dr.Sandeep Gaikwad Treasurer GPG, Prof Pragati Patil, Vice Principal, motivated us to organize this event. Prof. Rohini Pochhi, HoD ECE Department, and Prof.Rahul Dhuture, Coordinator, Workshop congratulated participants for enhancement in their knowledge and promised for more such workshops. News has also been shared to Hitvada ,Loksatta and Tarun Bharat to be published.

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Objective of Workshop:

❖ To provide introduction to Internet on Things (IoT)

❖ Exposure to various sub fields and technology stacks of IoT.

❖ To enable people to convert their Iot product idea in working prototype.

❖ To provide through working knowledge of the Raspberry Pi Platform.

❖ To bring up entrepreneurs and innovators by supporting them with investment nd mentorship.

❖ To identify IoT android application through wireless communication and device.

❖ To apply the role of IoT in artificial Intelligence.

❖ To understand economical analysis of IoTs

Mapping of Workshop with POs:

1. Engineering Knowledge

2. Problem Analysis

3. Design/ development of solutions

4. Conduct investigations of complex problems

5. Modern tool usage

6. The engineer and society

7. Environment and sustainability

8. Ethics

9. Individual and team work

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10.   Project management and finance

11.   Life-long learning

Outcomes of Workshop:

1.   Determine the most appropriate Internet of Things.

2.   Devices and Sensors based on Case Studies.

3.   Setup the connections between the Devices and Sensors.

4.   Evaluate the appropriate protocol for communication between IoT

Conclusion:

- Along with an exponential growth in connected devices,

- Each thing in IoT communicates packets of data that require reliable connectivity, storage, and security.

- With IoT, an organization is challenged with managing, monitoring, and securing immense volumes of data and connections from dispersed devices.

Acknowledgement:

1.   The session conducted was very interactive

2.   Practical knowledge was enhanced

3.   Usage and industry scope was discussed

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Glimpses of Two Days Workshop
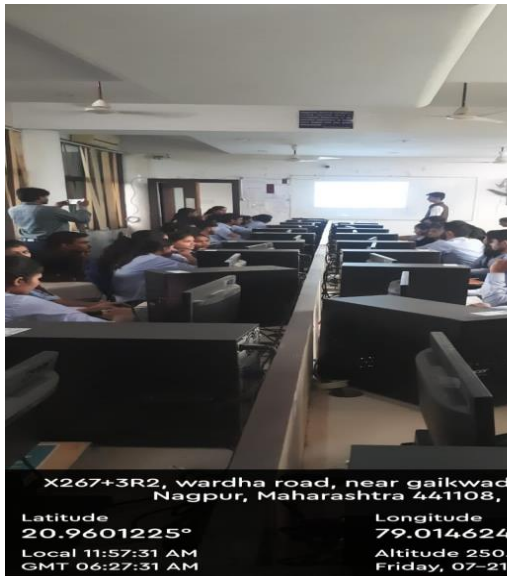

Glimpses of Day 1 Internet of Things Workshop

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Glimpses of Day 2 Internet of Things Workshop

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Glimpse of Valedictory Function

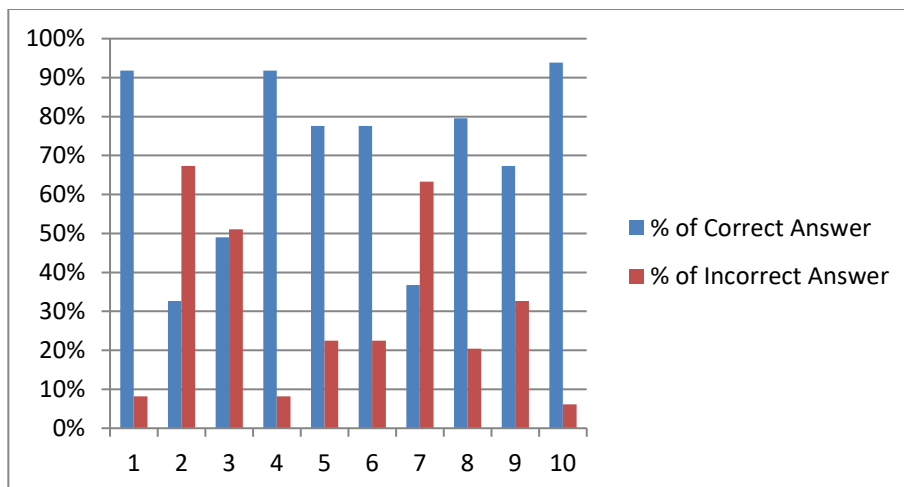Valedictory function successfully ended with certificate distribution

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Feedback Report of Day 1 Internet of Things Workshop

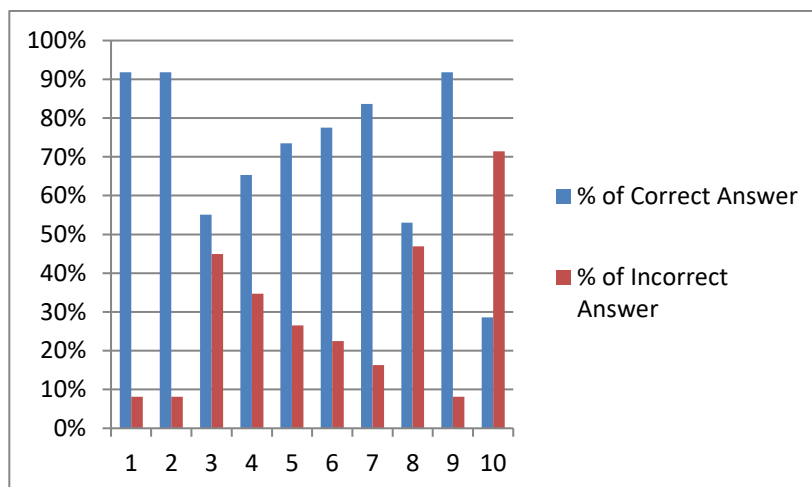| Feedback Report					
Batch Size					
Question Number	Total Count of Student	Total Count of Correct Answer	Total Count of Incorrect Answer	% of Correct Answer	% of Incorrect Answer
1	49	45	4	92%	8%
2	49	16	33	33%	67%
3	49	24	25	49%	51%
4	49	45	4	92%	8%
5	49	38	11	78%	22%
6	49	38	11	78%	22%
7	49	18	31	37%	63%
8	49	39	10	80%	20%
9	49	33	16	67%	33%
10	49	46	3	94%	6%

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Feedback Report of Day 2 Internet of Things Workshop

Feedback Report Batch Size					
Question Number	**Total Count of Student**	**Total Count of Correct Answer**	**Total Count of Incorrect Answer**	**% of Correct Answer**	**% of Incorrect Answer**
1	49	45	4	92%	8%
2	49	45	4	92%	8%
3	49	27	22	55%	45%
4	49	32	17	65%	35%
5	49	36	13	73%	27%
6	49	38	11	78%	22%
7	49	41	8	84%	16%
8	49	26	23	53%	47%
9	49	45	4	92%	8%
10	49	14	35	29%	71%

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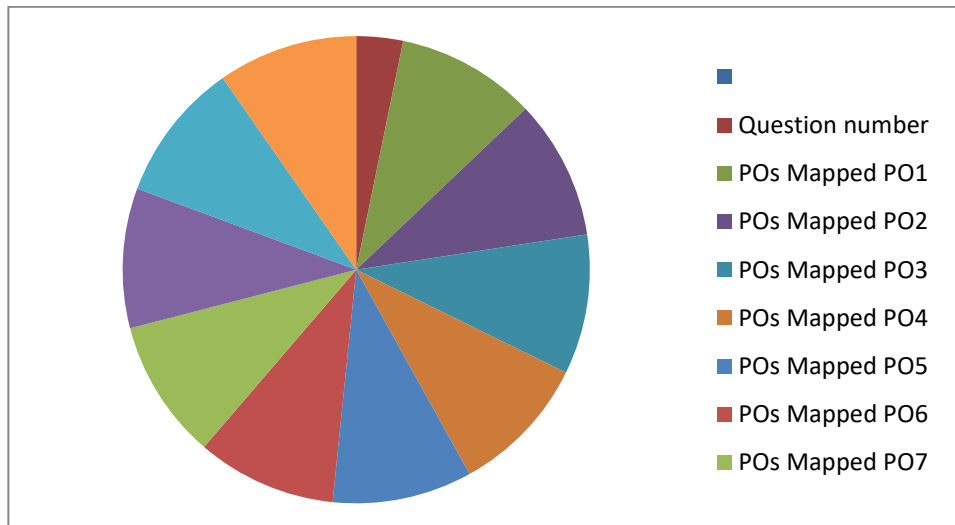**(An Autonomous Institute Affiliated to RTM Nagpur University, Nagpur)**

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Correct answer in % range 80-100 (3), 60-80 (2) and below 60(1)

Question number	POs Mapped										
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO12
1	3	3	3	3	3	3	3	3	3	3	3
2	3	3	3	3	3	3	3	3	3	3	3
3	1	1	1	1	1	1	1	1	1	1	1
4	2	2	2	2	2	2	2	2	2	2	2
5	2	2	2	2	2	2	2	2	2	2	2
6	2	2	2	2	2	2	2	2	2	2	2
7	3	3	3	3	3	3	3	3	3	3	3
8	1	1	1	1	1	1	1	1	1	1	1
9	3	3	3	3	3	3	3	3	3	3	3
10	1	1	1	1	1	1	1	1	1	1	1
Average	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1

Pie chart analysis for POs attainment

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Conclusion:

- In this Workshop, how machine to machine connectivity is rapidly growing everywhere was discussed. Also the business benefits for connected devices and assets for remote location connectivity are instantly cleared.

- Active participation of students was noticed.

- Practical Knowledge given by experts

- PO1,PO2,PO3,PO4,PO5,PO6,PO7,P8,PO9,PO11,PO12 were attained.

- Student's feedback was satisfactory.

Action Taken Report:

- Advanced experiments are planned using the kit.
- Micro and Mini projects will be assigned using same software.