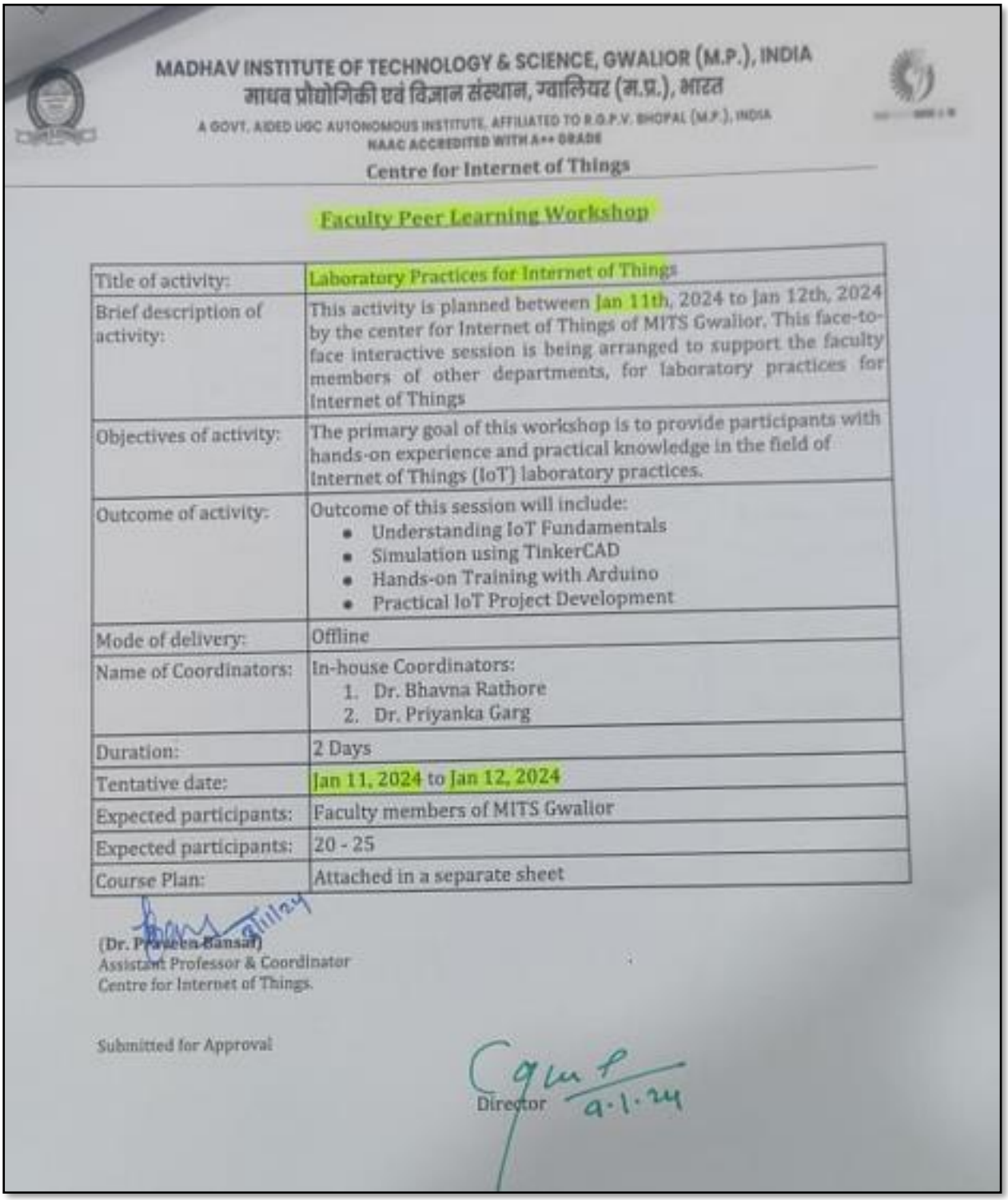
Report on

Two-day Peer-Learning Workshop on Laboratory Practices for Internet of Things

(11-12 January 2024)

Organized by

Centre for Internet of Things



MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR (M.P.), INDIA
माधव प्रौद्योगिकी एवं विज्ञान संस्थान, ग्वालियर (म.प्र.), भारत
A GOVT. AIDED UGC AUTONOMOUS INSTITUTE, AFFILIATED TO R.G.P.V. BHOPAL (M.P.), INDIA
NAAC ACCREDITED WITH A++ GRADE

Centre for Internet of Things

Faculty Peer Learning Workshop

Title of activity:	Laboratory Practices for Internet of Things
Brief description of activity:	This activity is planned between Jan 11th, 2024 to Jan 12th, 2024 by the center for Internet of Things of MITS Gwalior. This face-to-face interactive session is being arranged to support the faculty members of other departments, for laboratory practices for Internet of Things
Objectives of activity:	The primary goal of this workshop is to provide participants with hands-on experience and practical knowledge in the field of Internet of Things (IoT) laboratory practices.
Outcome of activity:	Outcome of this session will include: • Understanding IoT Fundamentals • Simulation using TinkerCAD • Hands-on Training with Arduino • Practical IoT Project Development
Mode of delivery:	Offline
Name of Coordinators:	In-house Coordinators: 1. Dr. Bhavna Rathore 2. Dr. Priyanka Garg
Duration:	2 Days
Tentative date:	Jan 11, 2024 to Jan 12, 2024
Expected participants:	Faculty members of MITS Gwalior
Expected participants:	20 - 25
Course Plan:	Attached in a separate sheet

(Dr. Praveen Bansal)
Assistant Professor & Coordinator
Centre for Internet of Things.

Submitted for Approval

Director 9.1.24

Date: Jan 11th, 2024 and Jan 12th, 2024

Venue: IoT Lab

Registration Link: https://forms.gle/YGeYSDNMkEmxmzEf9

Schedule:

Day 1

Session 1:

- Explore foundational IoT concepts, architecture, and components.
- Understanding IoT communication protocols

Session 2:

- Explore TinkerCAD simulation platform for virtual experimentation.
- Simulation exercises for sensor integration, data transmission, and actuator control.

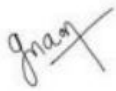
Day 2

Session 1:

- Hands-on training with Arduino for physical implementation.

Session 2:

- Perform Practical IoT Laboratory Exercises.



Objective:

The objective of the workshop was to provide participants with comprehensive training in laboratory practices for Internet of Things (IoT). The sessions were designed to cover foundational concepts, communication protocols, virtual experimentation, physical implementation using Arduino, and practical laboratory exercises.

Silent Points of Discussion:

- The importance of IoT in various industries and its impact on technology advancements.
- The role of communication protocols in ensuring seamless data exchange in IoT systems.
- The significance of simulation platforms like TinkerCAD for cost-effective and efficient experimentation.
- Hands-on experience with Arduino for physical implementation and real-world applications.
- Practical exercises to reinforce learning and enhance participants' skills in IoT laboratory practices.

Outcome:

- The workshop successfully met its objectives by providing participants with a comprehensive understanding of IoT laboratory practices.
- The sessions on foundational concepts, communication protocols, simulation platforms, and physical implementation equipped participants with practical skills and knowledge.
- The workshop contributed to enhancing participants' proficiency in IoT laboratory practices, preparing them for future projects and advancements in the IoT domain.

Glimpses of the Workshop


GPS Map Camera
Gwalior, Madhya Pradesh, India
mits 3 race course road, Gole Ka Mandir Rd, Mela Ground, Thatipur,
Gwalior, Madhya Pradesh 474011, India
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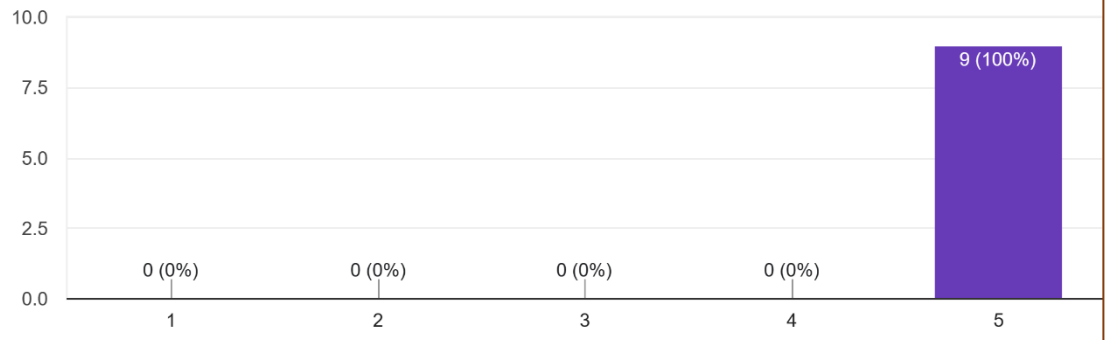
Feedback of the Workshop

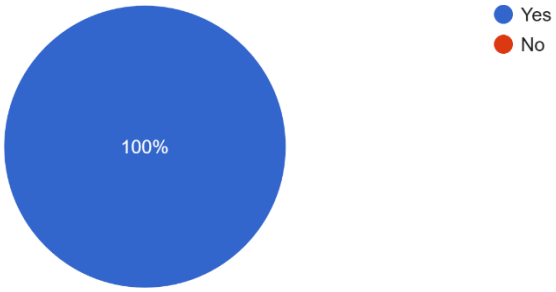
How would you rate the overall effectiveness of this workshop on a scale of 1 to 5, with 1 being the lowest and 5 being the highest?

9 responses



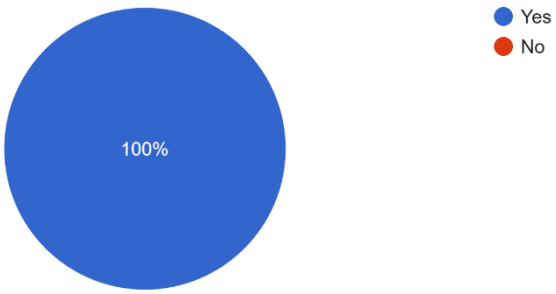
Did the peer facilitators proficiently convey and clarify complex ideas while also providing support as needed?

10 responses



Were the tinkercad simulation helpful in explaining the working of Arduino and sensors?

10 responses



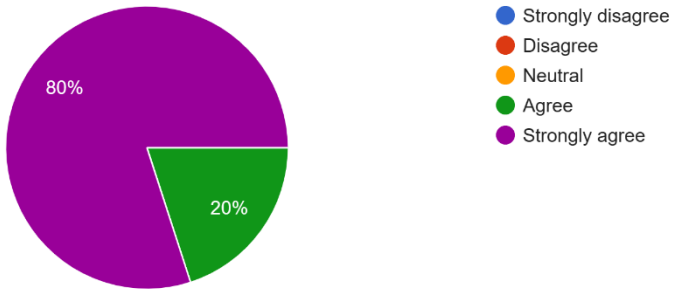
Which elements of the workshop were particularly valuable in improving your skills in the field of Internet of Things?

9 responses

1. Tinkercad simulation software helps to understand basics
2. Connectivity and data processing
3. Arduino Programming
4. Learning of Sensors
5. Yes
6. Hands on training
7. Arduino
8. Practical implementation of various IoT based applications
9. Simulation with Arduino
10. Hands-on sessions

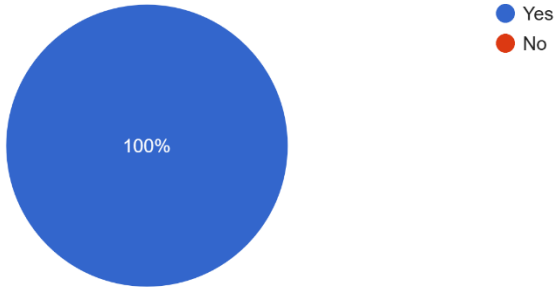
Did the examples and exercises conducted in the workshop for Laboratory Practices in Internet of Things prove to be relevant and beneficial?

10 responses



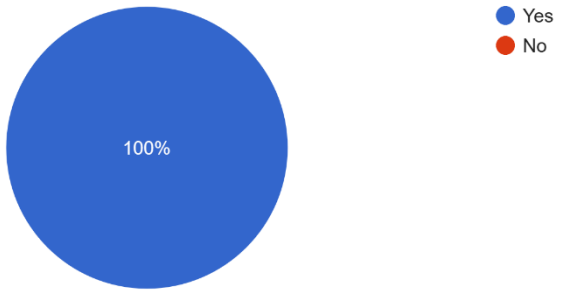
Did the speed and duration of the workshop align well with your preferred learning pace and schedule?

10 responses



Would you recommend this workshop to your peers or colleagues?

10 responses



Please share any additional comments or feedback regarding your overall experience with the Two-day Peer-Learning Workshop on Laboratory Practices for Internet of Things.

10 responses

1. NA
2. Overall experience was Good
3. More time required to learn the skill.
4. Nothing specific
5. Overall nice
6. Overall experience was good and informative...
7. Nil
8. Overall it was a good learning.
9. Good
10. It should be for a week.