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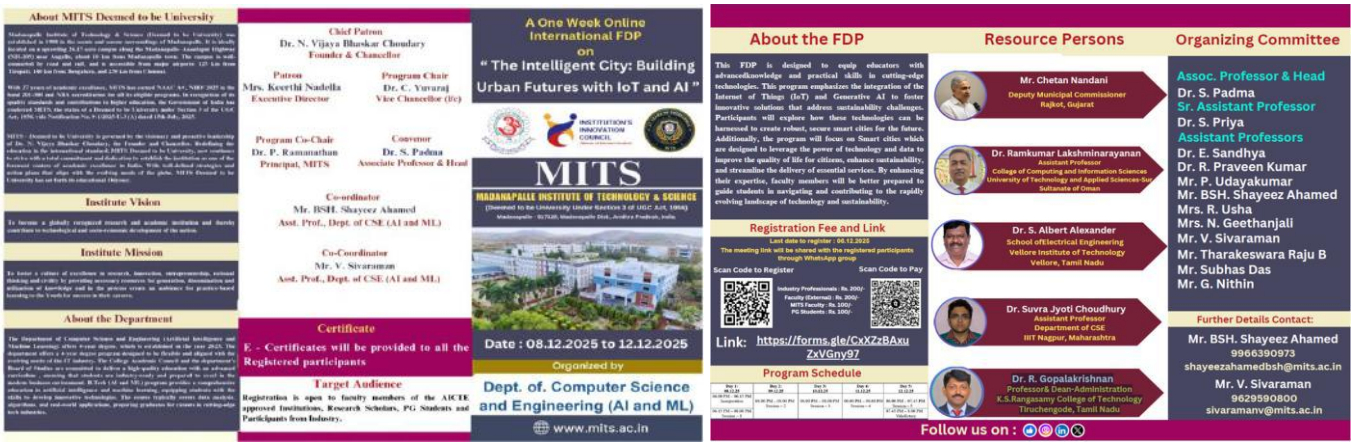
NAAC Accredited with A+ Grade, NIRF India Rankings 2024 - Band: 201-300 (Engg.)
NBA Accredited - B.Tech. (CIVIL, CSE, ECE, EEE, MECH, CST), MBA & MCA

# A Report on One Week Online International FDP on "The Intelligent City: Building Urban Futures with IoT and AI" Organized by Department of CSE (AI & ML) from 08.12.2025 to 12.12.2025




**Report Submitted by: Mr. V. Sivaraman, Assistant Professor, Department of CSE (AI and ML); Mr. BSH. Shayeez Ahamed Assistant Professor, Department of CSE (AI and ML).**

**Resource Persons: Mr. Chetan Nandani, Deputy Municipal Commissioner, Rajkot, Gujarat; Dr. Ramkumar Lakshminarayanan, Assistant Professor, College of Computing and Information Sciences, University of Technology and Applied Sciences-Sur, Sultanate of Oman; Dr. S. Albert Alexander, School of Electrical Engineering, Vellore Institute of Technology, Vellore, Tamil Nadu; Dr. Suvra Jyoti Choudhury, Assistant Professor, Department of CSE, IIIT Nagpur, Maharashtra; Dr. R. Gopalakrishnan, Professor & Dean-Administration, K.S. Rangasamy College of Technology, Tiruchengode, Tamil Nadu.**
**No. of Participants: 138**
**Mode of Conduct: Online**
**Time: 06.00 PM to 08.00 PM**
**Report Received on 18.12.2025.**

**Department of Computer Science and Engineering (AI and ML) has organized a One Week Online International FDP on "The Intelligent City: Building Urban Futures with IoT and AI" program from 08.12.2025 to 12.12.2025**

**Welcome Address:**

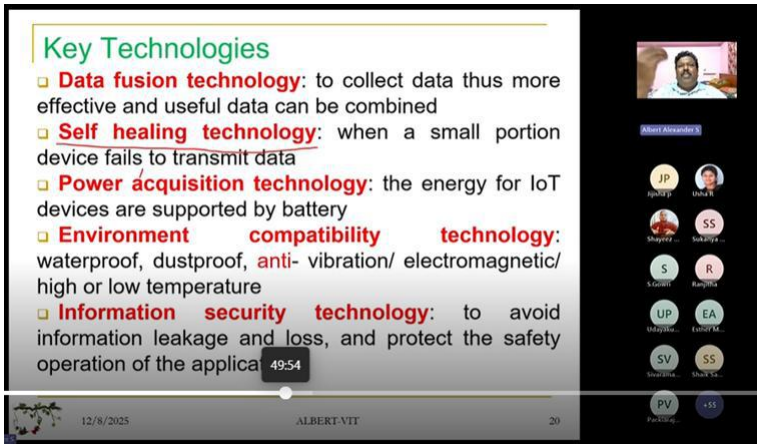
**Mr. BSH. Shayeez Ahamed, Assistant Professor, Department of CSE (AI and ML), Madanapalle Institute of Technology & Science (MITS) gave a pleasant and captivating welcoming speech to everyone at 06:00 PM. The program's primary goal is to make participants to understand how IoT and Artificial Intelligence enable smart, sustainable urban systems and identify suitable sensors, networks, and architectures for smart city applications.**

**Keynote Address**
**Dr. S. Padma, Associate Professor & Head, Department of CSE (AI and ML), Madanapalle Institute of Technology & Science (MITS), greeted the resource person and welcomed the participants to enrich themselves.**
**She expressed gratitude to the MITS administration and Principal for their continuous and constant support in setting up FDPs, guest lectures, and workshops. She encouraged the participants to acquire skills that are highly sought after in the fields of IoT and AI.**

**Presidential Address**
**Dr. P. Ramanathan, Principal, MITS highlighted the role of IoT and AI in building smart city environments. He stated that this FDP platform will assist faculty in improving their skills in IoT and AI, and that these subjects must be taught to students. His speech has included how to improve urban efficiency, sustainability, safety, and quality of life by enabling data-driven planning, optimized resource management, and responsive city services.**

**FDP session Details**

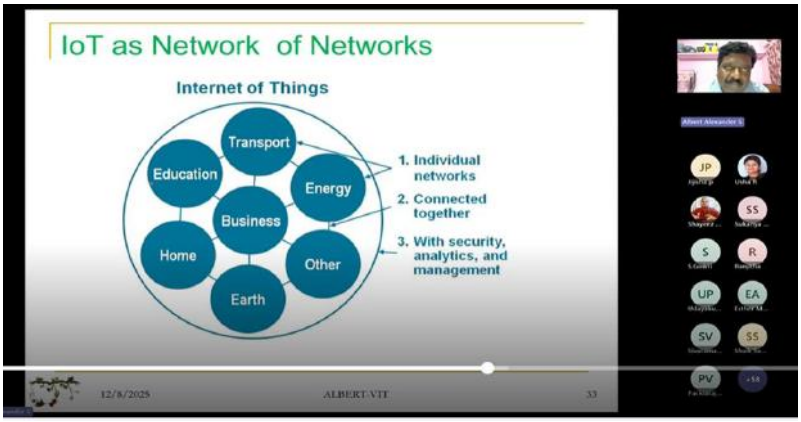
**Day - 1**
**Theme: Intelligent Farming through IoT Modules – A Research Perspective**
**Speaker: Dr. S. Albert Alexander (PDF, USA), Raman Research Fellow Vice President, Energy Conservation Society, India, School of Electrical Engineering, Vellore Institute of Technology (VIT), Vellore.**




**Implied focus areas:**

- **IoT-based sensing and automation in agriculture**
- **Data-driven farming for productivity and sustainability**
- **Research challenges and future directions in smart farming**
- **Energy-efficient and technology-enabled agricultural systems**

**Day - 2**
**Theme: Future and the Role of AI Agents**
**Speaker: Dr. Ramkumar Lakshminaryanan, University of Technology and Applied Sciences, Sur, Sultanate of Oman**

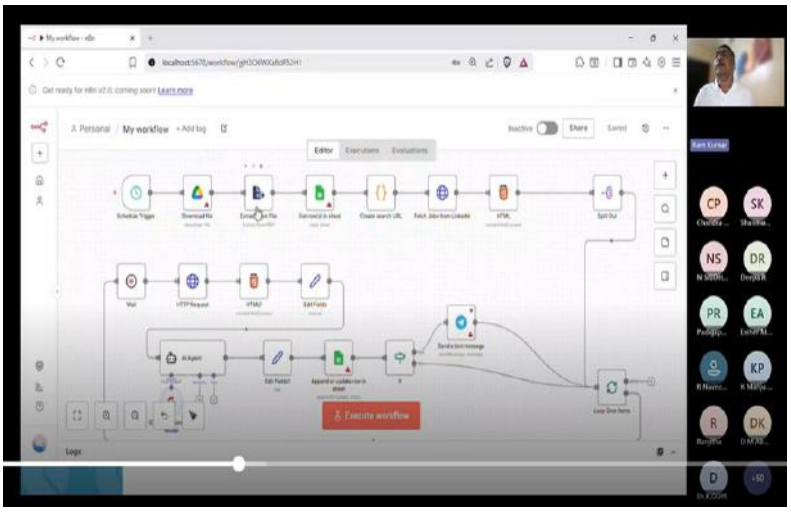



**Implied focus areas:**

- **Differences between non-agentic, agentic, and truly autonomous AI workflows.**
- **Step-by-step execution enables task planning, research, drafting, and revision in agentic systems.**
- **The advantages and limitations of one-pass versus iterative AI execution.**
- **Agentic workflows to decompose complex problems into manageable stages.**
- **Scenarios where fully autonomous AI agents can operate with minimal or no human intervention.**
- **Air Pollution Monitoring Device**
- **Model Context Protocol**

**Day – 3**

**Theme: The Smart City Vision: Where AI Meets Urban Life**
**Speaker: Dr. R. Gopalakrishnan, Professor & Dean-Administration, K.S. Rangasamy College of Technology, Tiruchengode, Tamil Nadu.**

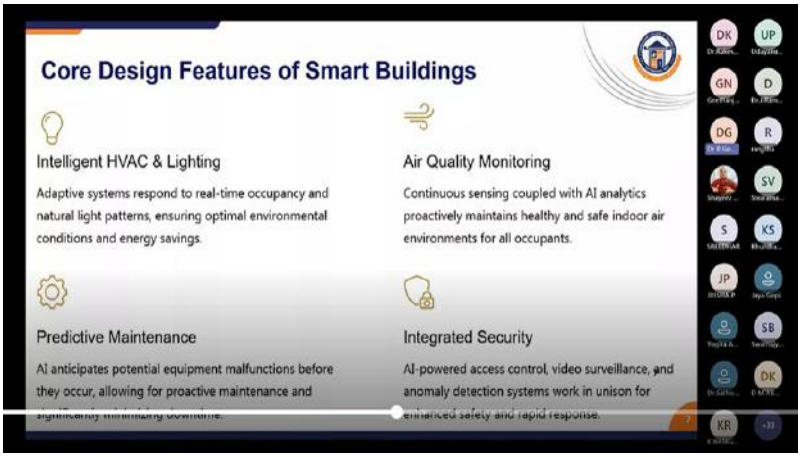


**Implied focus areas:**

- **Core Elements of Smart Urban Infrastructure**
- **Smart cities rely on digital connectivity, data intelligence, and automation**
- **Integration of IoT sensors, cloud platforms, and AI analytics for real-time monitoring**
- **Use of Big Data and predictive analytics for planning and decision-making**
- **Smart governance through e-services, digital platforms, and citizen participation**
- **Deployment of cyber-physical systems for urban infrastructure control**
- **Focus on energy efficiency, sustainability, and resource optimization**
- **Interoperability between transport, power, water, healthcare, and security systems**

**Day – 4**

**Theme: Introduction to IoT & Sustainable Future**
**Speaker: Dr. Suvra Jyoti Choudhury, Assistant Professor, Department of CSE, IIIT Nagpur, Maharashtra.**

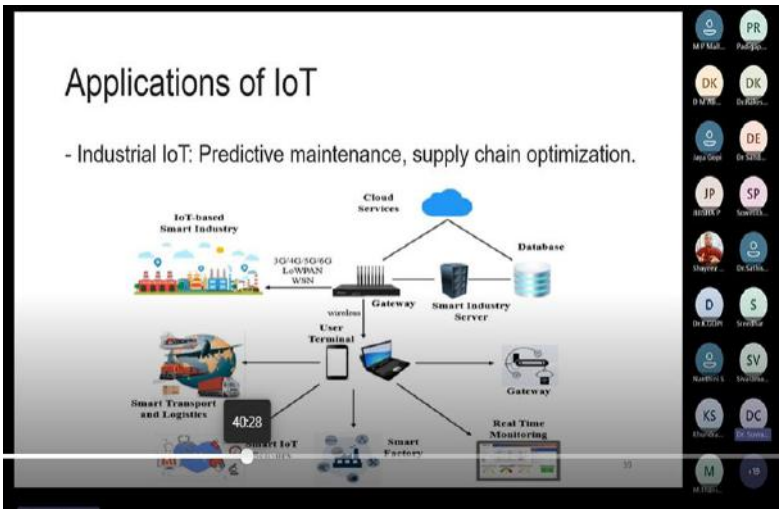



**Implied focus areas:**

- **IoT Architecture Overview**
- **Application of IoT**
- **Objectives of Smart City**
- **City Wide Smart Solutions**
- **Consumer IoT Products & Services**
- **Smart Farming: Use of IoT to Improve Agriculture**
- **IoT in Manufacturing**
- **IoT Challenges**

**Day - 5**

**Theme: Smart City – Case Study on implemented projects, Rajkot**
**Speaker: Mr. Chetan Nandani, Deputy Municipal Commissioner, Rajkot, Gujarat**




**Implied focus areas:**

- **Rajkot Smart City - Case Study**
- **Integrated Transit Management System (ITMS)**
- **Adaptive Traffic Control System (ATCS)**
- **Smart Hawking Solution**
- **Overview of Enterprise GIS solution**
- **Digital Highway (OFC) Project**
- **Municipal Services on WhatsApp**

**Vote of thanks**

**With a vote of gratitude, Mr. BSH. Shayeez Ahamed, Assistant Professor, Department of CSE (AI and ML), formally ended the session with question hours. He sincerely thanked the MITS management, Principal, all the participants and Resource persons who have shared their knowledge and experience.**

**Outcomes:**

**At the end of FDP, the participants can able to**

1. **Understand the role of IoT and AI in smart farming, smart cities, and sustainable development.**
2. **Identify real-world applications and implemented smart city and agriculture projects.**
3. **Apply IoT architectures and AI workflows to solve urban and agricultural problems.**
4. **Analyze the future impact of AI agents in autonomous and intelligent systems.**
5. **Evaluate sustainability and societal impact of IoT- and AI-based solutions.**

**UN-SDG Mapping:**

**SDG 2 – Zero Hunger**
**SDG 7 – Affordable and Clean Energy**
**SDG 9 – Industry, Innovation and Infrastructure**
**SDG 11 – Sustainable Cities and Communities**
**SDG 13 – Climate Action**