

## Workshop on IoT in Emerging Tech. Opportunities and Applications

**Dates: 16 – 20  
December 2024**

**Time: 1:30 PM to  
5:30 PM**

**Mode: Online**

**Number of  
Sessions: 10**

**No of participants: 6**

From December 16 to December 20, 2024, the School of Computer Science & Engineering at XIM University, Bhubaneswar, organized a one-week Online workshop titled "IoT in Emerging Tech: Opportunities and Applications". The event, conducted from 1:30 PM to 5:30 PM, aimed to immerse participants in the transformative world of IoT, covering topics such as IoT hardware and standards, communication and application protocols, resource provisioning in Fog and Cloud, machine learning for IoT/WSNs, and multidisciplinary IoT case studies. The workshop was inaugurated by Fr. Antony R. Uvari, SJ, Vice-Chancellor, and Dr. Rudra Mohan Tripathy, Academic Dean, who highlighted the critical role of IoT in advancing modern technology and multidisciplinary research.

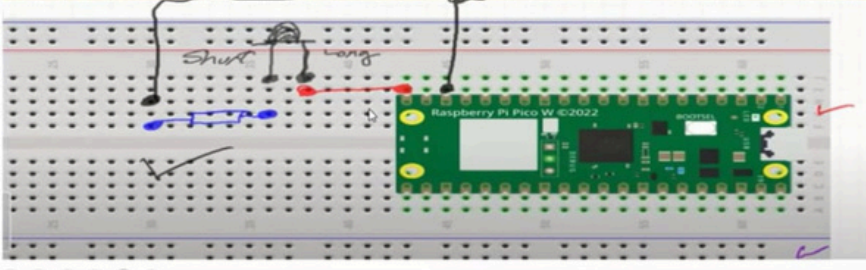
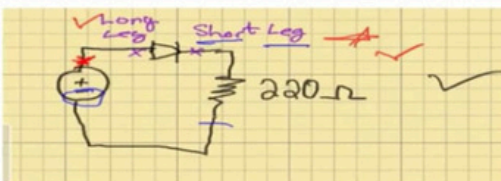
The sessions, spanning 10 interactive sessions, featured a distinguished panel of speakers, including Dr. Satendra Nath Mishra, Dr. Suchismita Chinara, Dr. Anand Nayyar, Dr. Alok Ranjan, and others. The speakers shared valuable insights into diverse topics such as IoT hardware integration, communication protocols, machine learning applications, state-of-the-art IoT research, and real-world multidisciplinary IoT applications. Participants also explored case studies in sectors like healthcare, smart cities, and agriculture, emphasizing how emerging technologies like machine learning can complement IoT to solve complex challenges effectively.

The workshop concluded with closing remarks by Dr. Devendra Kumar Yadav and Dr. Ashish Kumar, who commended the speakers' invaluable contributions and the participants' active involvement. Certificates were distributed to attendees, marking the successful completion of the program. This workshop provided a comprehensive understanding of IoT's vast potential and equipped participants with the necessary technical and research skills to excel in this rapidly advancing field.



# Glimse of Online lecture


• We have 20 GPIO pin( General purpose input/ output pin)



50:46


### Installing Arduino software

1. Go to Aurdino download page [URL-https://www.arduino.cc/en/software](https://www.arduino.cc/en/software)
2. Scroll down the page and go to Downloads part




3. Corresponding to the specific OS, choose the appropriate option.

### Smart Health Care



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### IoT Protocol Stack Layers

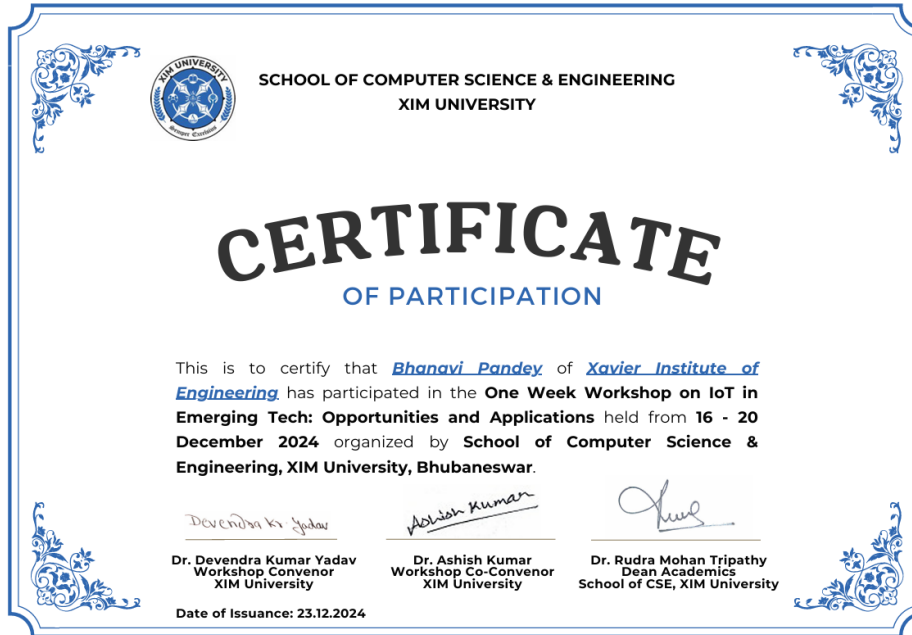
Layer 7	Application Layer
Layer 6	User Experience Layer
Layer 5	Session/Message Layer
Layer 4	RF Layer
Layer 3	Hardware Interface Layer
Layer 2	Processing and Control Action Layer
Layer 1	Physical or Sensor Layer

IoT Protocol Stack Layers

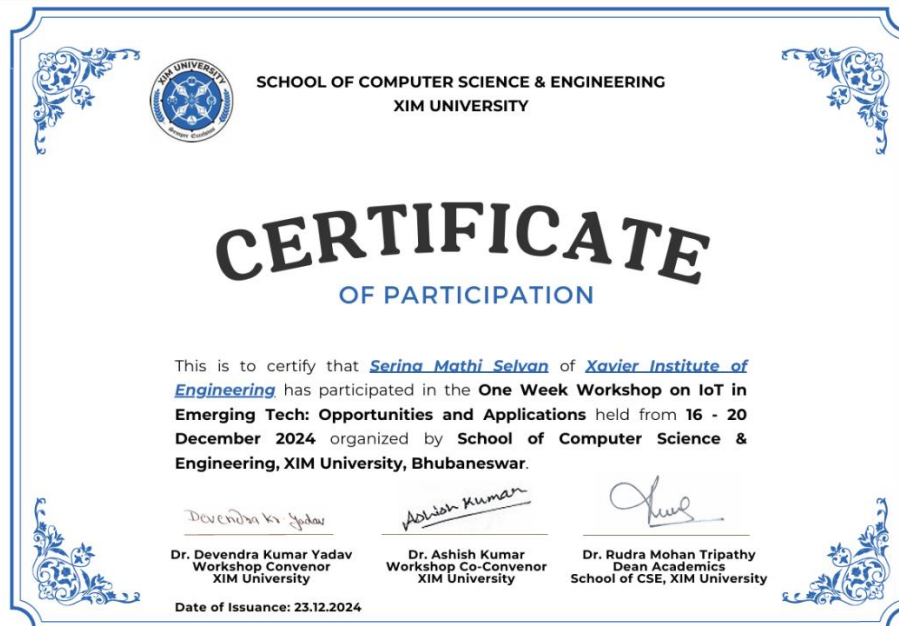
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# Certificates Of Participants

1) Bhanavi Pandey ( TE – CSE )



2) Serina Selvan ( TE – CSE )



3) Nirjal Chaudhari ( TE – CSE )

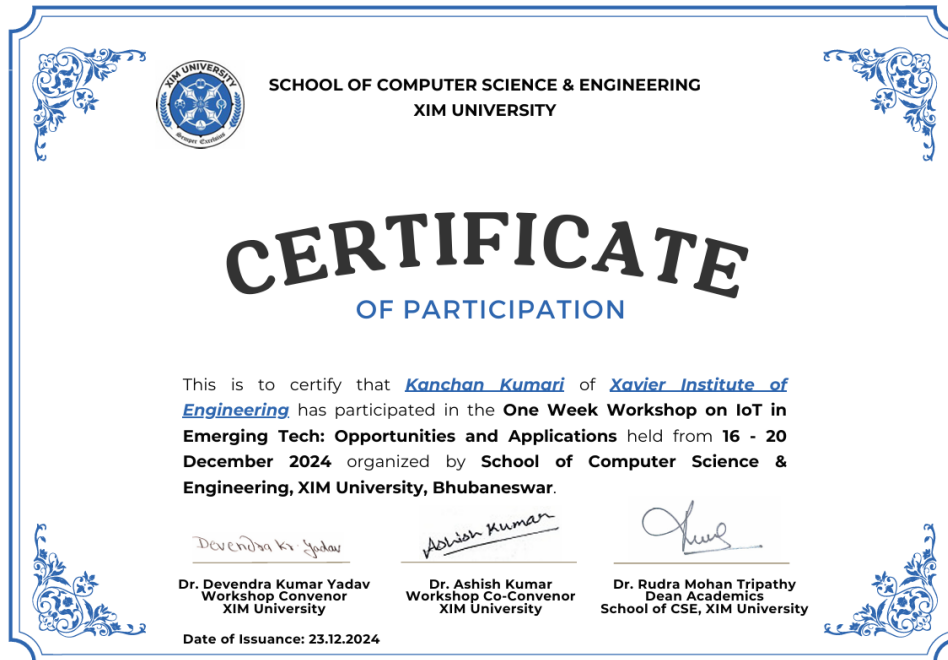


4) Celicia Dinesh





5) Kanchan Kumari ( SE – IT )



6) Samiksha Rane ( SE – EXTC )



