

## Target participants

The faculty members of the AICTE approved institutions, Research scholars, PG Scholars, participants from Government, Industry (Bureaucrats/Technicians/Participants from Industry etc.)/School Teachers and staff of host institutions.

## Registration Fee

Nil

## Registration link

<https://atalacademy.aicte-india.org/signup>

## Number of seats

Limited to maximum 100 participants are selected by organizers on first come first serve basis. All the participants should have Gmail account.

## Event Details

All the sessions will be conducted through online platform. The meeting links will be sent to the selected participants through WhatsApp/email. There will be an Inaugural Ceremony, 14 Technical sessions, online test/quiz and a valedictory. An online test will be conducted by the coordinator at the end of the program.

## Resource Persons

Academic experts from premier Institutions/Universities, like IITs/NITs/IITs/IISERs/ISIs/Central Universities will be taken as resource persons.

## Certification

E-Certificates will be issued by AICTE Training and Learning (ATAL) academy to participants who have attended the program with minimum 80% attendance and scored minimum 60% marks in the test.

## **Patron**

**Prof. Santanu Chattopadhyay**  
Director, IIIT Kalyani, West Bengal

## **Coordinator**

**Dr. Dalia Nandi**  
Email : [dalia@iiitkalyani.ac.in](mailto:dalia@iiitkalyani.ac.in)  
Mobile : +917003465005

## **Co-Coordinator**

**Dr. Rinky Sha**  
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Mobile : +918464096634

## **Organizing Committee**

Dr. SK Hafizul Islam, Dr. Sanjay Chatterji, Dr. Uma Das, Dr. Sanjoy Pratihari, Dr. Oishila Bandyopadhyay, Dr. Pratik Chakraborty, Mr. Biswajit Halder, Md.Samim Rahman, Mr. Amit Sadhukhan, Ms.Sreejoyee Das, Mr. Sanju Biswas, Mrs.Moupriya Das.

## **Name of Few Resource Persons**

Prof. Dipak Goswami, IIT Kharagpur  
Dr. Manjira Sinha, IIT Kharagpur  
Dr. Swati Bharadwaj, Xilinx India  
Dr. Sai Kiran M. P. R., IIT Jodhpur  
Dr.Tirthankar Dasgupta, TCS, Kolkata  
Prof. Rabin Bera, SMIT , Sikkim  
Dr. Naresh Bhemishetty, TSMC  
Dr Roshani Raut, Pimpri Chinchwad College of Engineering, Pune  
Dr Rahul Johari, GGSIP University, Delhi

Last date for online Registration	3 <sup>rd</sup> December, 2021
Date of intimation to the selected candidates (by Email or phone)	7 <sup>th</sup> December, 2021
Confirmation from participants (by Email/Phone)	8 <sup>th</sup> December, 2021

## **A One Week Faculty Development Programme (FDP) On**

## **IoT for Emerging Technical Applications**

**13<sup>th</sup> December – 17<sup>th</sup> December, 2021**

## **SPONSORS**



## **Announcement Brochure**

## **Program Coordinators**

**Dr. Dalia Nandi**

**Dr. Rinky Sha**

**Department of Electronics and Communication Engineering**

**Organized by**



**Department of Electronics and Communication Engineering**

**Indian Institute of Information Technology Kalyani**

**Nadia, Kalyani, West Bengal - 741235**

## ATAL Academy

AICTE Training and Learning (ATAL) Academy is established with the vision “To empower faculty to achieve goals of Higher Education such as access, equity and quality”. AICTE is committed for development of quality technical education in the country by initiating various schemes launched by Govt. of India, Ministry of Human Resource Development. Council understands that there is a need of the day to train the young generation in skill sector and having faculty & technicians to be trained in their respective disciplines. Training is required for increasing the knowledge and skills of students to make them more employable to acquire global competencies.

## About IIT Kalyani

The Indian Institute of Information Technology Kalyani has been setup with an objective to produce best-in-class human resources in IT and to harness the multidimensional facets of IT in various domains. IIT Kalyani strives to evolve into a world-class academic institution with the highest quality of education and research facilities and produce industry ready IT graduates to meet the industry demands. The institute will act as a catalyst in fostering an innovative entrepreneur-focused ecosystem to ensure that new products, solutions and IP are created in the State taking advantage of the intellectual capital of the State.

IIT Kalyani has been set up at Kalyani, West Bengal by Government of India (MHRD), Government of West Bengal and industry partners. The institute is run by the Board of Governors of IIT Kalyani whose members include the representatives of Government of India (MHRD), Government of West Bengal, industry partners and eminent people from academia, industry and civil society. IIT Kalyani has been attributed the status of Institute of National Importance (INI) by the parliament of India in August, 2017.

The Institute offers a four-year B.Tech degree program in Computer Science and Engineering and Electronics and Communication Engineering with an annual intake of 180 students. It also offers M.Tech degree in Artificial Intelligence and Data Science. Besides, the Institute runs the part-time Ph.D. programme in Computer Science and Engineering, Electronics, Mathematics and Physics from 2018 with an annual intake of 20 students (approx.).

## About West Bengal

West Bengal (Paschim Banga) is a state in the eastern region of India along the Bay of Bengal. With over 91 million inhabitants, it is the fourth-most populous state and the fourteenth-largest state by area in India. It covers an area of 88,752 km<sup>2</sup>. It also borders the states of Odisha, Jharkhand, Bihar, Sikkim, and Assam. The state capital is Kolkata, the third-largest metropolis and seventh-largest city by population in India. West Bengal includes the Darjeeling Himalayan hill region, the Ganges delta, the Rarh region, and the coastal Sundarbans.

## About AICTE

AICTE is committed for development of quality technical education in the country by initiating various schemes launched by Govt. of India, Ministry of Human Resource Development e.g. SWAYAM, MOOCs, Start-up Initiatives, Prime Minister Kaushal Vikas Yojana (PMKVY), Sansad Adarsh Gram Yojana (SAGY), Swachh Bharat(Unnat Bharat Abhiyan, Yoga Activities etc. There is an urgent need to train the young generation in skill sector and having faculty & technicians to be trained in their respective disciplines. It was felt that Training with latest tools and technologies is vital to keeping an institute competitive and more productive. Training is required for increasing the knowledge and skills of students to make them more employable to acquire global competencies. We also need to transform them to harmonize with society and make them good citizens of the country.

## Course Objectives

The aim of this program is to introduce the participants to the amazing world of IoT with fascinating applications. IoT is the idea of making devices and objects smarter by linking them to the internet. This technology frontier (IoT) with immense engineering applications is the need for today’s industry and academia. This FDP serves as a platform to train and educate the research scholars, faculty, and people from industry and academia to interact on cutting edge technologies in this emerging area.

In UG and PG classes, we commonly demonstrate the student’s conventional techniques. Nevertheless, research is evolving fast. This one-week online FDP program also focuses on exploring various opportunities and challenges of the said context.

## Tentative Topics to be covered

- Introduction to IoT
- IoT Architecture design issues
- IoT implementation using open source tools
- IoT Sensors
- AI/ML in IoT
- Industrial IoT
- Security Risk Management in IoT
- IoT in 5G Communication
- Potential IoT applications like Smart healthcare, Smart Education, Smart home etc.

## Tentative Schedule

Time/Day	9.45 to 10 AM	10.00 to 11.30AM	12.00 to 01.30PM	02.30 to 4.00 PM
Monday	Inauguration	Introduction to IoT	IoT Architecture and design issues	Internet of Vehicles (IoV) use cases
Tuesday		IoT Sensors	AI/ML in IoT	Hands on session-I
Wednesday		IoT in 5G and beyond	Security Risk Management in IoT	Hands on session-II
Thursday		Industrial IoT	IoT applications session-I	Hands on session-III
Friday		IoT applications session-II	IoT applications session-III	Online Test and Valedictory Session