

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, 13 Technical sessions and one Fitness session, 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/IIITs/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. SK Hafizul Islam
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Mobile : +918240064733

Organizers

Dr. Sanjoy Pratihar, Dr. Debasish Bera, Dr. Sanjay Chatterji, Dr. Dr. Rinky Sha, Dr. Dr. Bhaskar Biswas, Dr. Oishila Bandyopadhyay, Dr. Anirban Lakshman, Mr. Biswajit Halder, Md. Samim Rahman

Resource Person

Prof. G. P. Biswas, IIT (ISM) Dhanbad
Prof. Balasubramanian Raman, IIT Roorkee
Dr. Urbi Chatterjee, IIT Kanpur
Dr. Ashok Kumar Das, IIIT Hyderabad
Dr. Dheerendra Mishra, MNIT Bhopal
Dr. Soumyadev Maity, IIIT Allahabad
Dr. Arup Kumar Pal, IIT(ISM) Dhanbad
Dr. Sartaj Ul Hasan, IIT Jammu
Dr. Arijit Karati, National Sun Yat-sen University, Taiwan
Dr. Odelu Vanga, IIIT Sricity
Dr. SK Hafizul islam, IIIT Kalyani
Dr. Sanjoy Pratihar, IIIT Kalyani

Last date for online Registration	22 th November, 2021
Date of intimation to the selected candidates (by Email or phone)	24 th November, 2021
Confirmation from participants (by Email/Phone)	27 th , November, 2021

A One Week Faculty Development Programme (FDP) On

“Application of Cryptographic Tools for Data and Image Securities”

06th December - 10th December, 2021

SPONSORS



Announcement Brochure

Program Coordinator

Dr. SK Hafizul Islam

Assistant Professor

Department of Computer Science and Engineering

Organized by



Department of Computer Science and Engineering

**Indian Institute of Information
Technology Kalyani**

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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 with an annual intake of 120 students. The Institute also 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 km². 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 multimedia data (text, image, audio, video, etc.) are widely communicated over the Internet. The security of multimedia data is of great concern in public networks. Different cryptographic tools, such as encryption, digital signature, steganography and watermarking, etc., are used to secure the multimedia data.

In UG and PG classes, we usually teach the students the old techniques. However, research is going on rapidly, and many new methods and tools are developed to provide security for multimedia data communications. This one-week online FDP provides platform for Research scholars, PG scholars, Faculty members, and Industry professionals to equip themselves with the necessary knowledge and pedagogical techniques in cryptography and image security. This program also focuses on exploring various opportunities and challenges of the said context.

Tentative Topics to be covered

- Multimedia Security
- Digital Watermarking
- Biometric Authentication Techniques
- Blockchain-based multimedia security
- Multimedia forensics for Data and Image
- Digital Image Forensics
- Information Retrieval in Encrypted Domain
- Cyber security
- Quantum Computing
- Quantum cryptography
- Lattice based Cryptography
- Code-based Cryptography
- Security for IoT devices
- Perfectly Secure Encryption Scheme

Time/Day	9.45 AM to 10:00 AM	10.00 AM to 11.30AM	12.00 PM to 01.30 PM	02.30 PM to 4.00 PM
Monday 06/12/2021	Inauguration	Multimedia Security	Digital Watermarking	Biometric Authentication Techniques
Tuesday 07/12/2021		Blockchain-based multimedia security	Multimedia forensics for Data and Image	Digital Image Forensics
Wednesday 08/12/2021		Information Retrieval in Encrypted Domain	Cyber security	Quantum Computing
Thursday 09/12/2021		Quantum cryptography.	Lattice based Cryptography	Code-based Cryptography
Friday 10/12/2021		Security for IoT devices	Perfectly Secure Encryption Scheme	Online Test