

## IIITDM Kancheepuram, Chennai

Indian Institute of Information Technology, Design and Manufacturing (IIITDM), Kancheepuram is an Institute of National Importance established in 2007, by the Ministry of Human Resource Development, Government of India, to pursue design and manufacturing oriented engineering education and research and to promote the competitive advantages of Indian products in global markets. The institute offers academic and research programs that integrate engineering design, manufacturing and management with information technology. With mastery in domain specific design, engineering skills and required managerial expertise, the graduates can entrepreneur organisations involved in the design and manufacture of commercially successful electronic or mechanical products.

For more details, visit [www.iiitdm.ac.in](http://www.iiitdm.ac.in)

### Department of CSE

Department of Computer Science and Engineering (CSE) offers design centric programmes such as B.Tech (CSE), Dual Degree (DD) programmes (B.Tech in CSE and M.Tech in CSE with specialization System Design) and Ph.D in various research areas. The department has enthusiastic students numbering around 400 which includes B.Tech, DD students and Ph.D scholars. IIITDM Kancheepuram's Computer Science and Engineering curriculum is modelled on the ACM (Association for Computing Machinery) recommendations and is the first of its kind engineering program offered in India. This program is aimed at producing engineers equipped with skills required for efficient hardware-software interaction. The graduates find wide scope

in VLSI, Embedded Systems and Electronics Product Manufacturing related industries in addition to application development avenues and higher studies that are open to conventional Computer Science engineers. The laboratories are equipped with powerful HP Workstations, FUJITSU Windows Server, IBM Debian Linux server and network infrastructure such as the ISDN equipment, network distribution switches, firewall and redundant wireless access controller to cater to the computing needs of the institute practice courses. The Institute is also equipped with a personal Super Computer employing 4 Tesla cards giving a peak performance of 4.12 Tflops to assist in the advanced courses. The HCI laboratory houses a powerful image processing workstation with intel x5690 6 core processor with dual monitor support.

For more details, visit [www.cse.iiitdm.ac.in](http://www.cse.iiitdm.ac.in)

### Contact

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AICTE Training And Learning (ATAL)  
Online Faculty Development Programme  
(FDP)

*on*

**Cyber Security & Cryptography:  
Trends and Technologies**

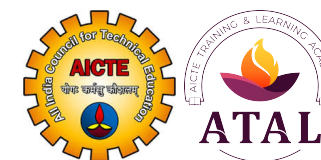
**4<sup>th</sup> to 8<sup>th</sup> October 2021**

*Organized by*



**Department of Computer Science and Engg.  
Indian Institute of Information Technology,  
Design and Manufacturing, Kancheepuram  
Chennai - 600127, India**

*in association with*



**All India Council for  
Technical Education (AICTE)**  
Government of India

Coordinator  
**Dr. Sanjeet Kumar Nayak**

## About the FDP

In the current world, almost all businesses, educational institutions, government agencies are using the Internet. On one side, we are getting benefited by IT infrastructures' services, but on the other side, there is a significant increase in the number of cyber attacks. Therefore, modern infrastructures need security solutions for secure transmission and protection of data at rest. The objective of this FDP is to deliver basic cryptographic and cyber security techniques as well as current cyber security issues and solutions. Also, we will deliver hardware security concepts, machine learning based cyber security solutions, ethical hacking tools, Virtual private network (VPN) for secure tunneling, etc. Moreover, this course will also focus on cyber security with blockchain, the current emerging technology.

The objective of this FDP is to equip the participants with the theory, tools, and modern cyber security solutions. The FDP will comprise lectures and hands-on sessions on the following topics.

## Topics to be Covered

- Cyber Security Attacks & Trends
- Foundations of Cryptography
- Key Distribution and Key Management
- Authentication and Access Control
- Network Threats & Attacks
- Cloud Security
- Hardware Security
- Modern Cryptography
- Machine Learning & Cyber Security
- Security issues for Resource Constraint Devices
- Intrusion detection and Prevention
- VPN Networks for Secure Tunnelling
- Ethical Hacking
- Lightweight Cipher Designs
- Blockchain Technologies and Cyber Security

## Targeted Participants

The programme is open to the faculty members of the AICTE approved institutions, research scholars, PG scholars, Government officers/personnel, bureaucrats, technicians, researchers, practitioners, industry personnel, and staffs of IIITDM Kancheepuram, Chennai.

## Resource Persons

The resource persons for the FDP are from IITs/NITs/IIITs/central universities/other reputed institutions/industries and host institution IIITDM Kancheepuram, Chennai.

## Registration Fee and Timing

There is **no registration fee** from any participant. The FDP timings are from 10:30 AM to 05:30 PM on all days.

## Selection

Only 200 seats are available for the FDP. Participants will be selected from among the applicants to ensure representation from more institutions across the country.

## Certification

A test shall be conducted by coordinator at the end of the program. The certificate shall be issued to those participants who have attended the program with 80% attendance and scored minimum 60% marks in the test. Also, submission of feedback on the ATAL portal is also mandatory to get the certificate.

## How to Apply

Interested participants are required to register at AICTE ATAL web portal (<https://atalacademy.aicte-india.org>) at the earliest. After registering,

1. Click menu item “Workshops” in the left column.
2. Select State as “Tamil Nadu”, Month as “October”, Thrust Area as “Thrust Areas”, Mode as “Online Mode”.
3. Click on Apply for Workshop “+” button for Institute Name as “Indian Institute of Information Technology, Design and Manufacturing (IIITDM), Kancheepuram” and Title as “Cyber Security & Cryptography: Trends and Technologies” and Application Number as “1614086710”.

Applicants who are selected for the FDP will be intimated via ATAL portal.

## Note

Please add email ids [sanjeetn@iiitdm.ac.in](mailto:sanjeetn@iiitdm.ac.in) and [sanjeet.nayak@ieee.org](mailto:sanjeet.nayak@ieee.org) to your address book to receive information from us about the FDP.

**Online AICTE Training and Learning (ATAL) Faculty Development Programme (FDP) on  
Cyber Security & Cryptography: Trends and Technologies  
(4<sup>th</sup> to 8<sup>th</sup> October 2021)**

*Organized by*

**Department of Computer Science and Engineering (CSE),  
Indian Institute of Information Technology, Design and Manufacturing, Kancheepuram  
Chennai - 600127, India**

**Online Meeting Platform: Google Meet/WebEx**

**Programme Schedule and Syllabus**

<b>Date</b>	<b>10:30 AM to 12:15 PM</b>		<b>02:00 PM to 03:45 PM</b>		<b>04:00 PM to 05:45 PM</b>
<b>04/10/2021 (Monday)</b>	Inauguration and <b>Session 1</b> Cyber Security Attacks & Trends	<b>Tea Break</b>	<b>Session 2</b> Foundations of Cryptography	<b>Lunch Break</b>	<b>Session 3</b> Hands on Key Distribution and Key Management
<b>05/10/2021 (Tuesday)</b>	<b>Session 4</b> Authentication and Access Control		<b>Session 5</b> Cloud Security		<b>Session 6</b> Lightweight Cipher Designs
<b>06/10/2021 (Wednesday)</b>	<b>Session 7</b> Machine Learning and Cyber Security		<b>Session 8</b> Hardware Security		<b>Session 9</b> <b>Stress Management</b>
<b>07/10/2021 (Thursday)</b>	<b>Session 10</b> Cyber Security with Blockchain		<b>Session 11</b> Hands on VPN Networks for Secure Tunnelling		<b>Session 12</b> Hands on Ethical Hacking
<b>08/10/2021 (Friday)</b>	<b>Session 13</b> Hands on Network Threats & Attacks		<b>Session 14</b> Security issues for Resource Constraint Devices		Test, Feedback and Valediction