Eligibility

Faculty Member, Research Scholar, Student from Engineering Institutes or Engineer from Industries with Computer Science/ Electronics & Comm./ IT/ Computer Application background.

Application will be accepted on a first come first serve basis. Number of participants is limited to 50.

Important Dates

- Last date for application: **05th January, 2021**
- Intimation to applicants: **08th January, 2021**

Registration Form

https://forms.gle/avPmFVmWapBgSXgW9

Registration Fee   NIL

Joint Co-Ordinators

Shyamalendu Kandar, Assistant Professor, Dept. of IT
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Short Term Course on

Information Security: Approaches in Application to Physical Layer

11th January– 15th January, 2021

(To be held online)

Sponsored by

TEQIP, IIESTS

Organized by

Department of Information Technology

Indian Institute of Engineering Science and Technology, Shibpur

About IIESTS

On 24th November, 1856, the Civil Engineering College, Calcutta was opened to impart technical and scientific education. From 1865-79, it functioned as an adjunct of Presidency College, Calcutta. From 1880-1887, it was shifted to the site of Bishops College at Shibpur and was called Government Engineering College. In 1920, it came to be known as Bengal Engineering College under the University of Calcutta. In 1993 the College was given the status of a Deemed University. In 2004, it was further renamed the Bengal Engineering and Science University, a full fledge state Govt. University. In recognition of its immense contribution to technical education to the nation, in 2014, the Institute was transformed to Indian Institute of Engineering Science and Technology, Shibpur, an Institute of national importance.

About the Department

The Department of Information Technology started its journey in 2000. It is one of the youngest departments of this 165 years old institute. The department specializes in diverse domains of research ranging from VLSI Design and Test, Hardware Security, Image and Signal Processing, Digital Geometry, Cellular Automata, Cyber Security to recently evolving areas of Wireless Networks, Cognitive Radio Networks, Internet-of-Things, and Machine Learning. The strength of the department has been its diverse areas of research, where it has made remarkable contributions over the past years and is continuing so.

About the Course

In the digital era, Information and Communication Technology (ICT) has reached a level by passing through many breakthroughs and remarkable advancements over the last decade and has infiltrated every part of our daily lives. In several situations of our daily life, ICT has paved its ways and its necessity is being realized more intensively during this COVID-19 pandemic situation. From online education, business, communication, healthcare system to IoT, the integral support of ICT can't be denied.

Data communication through public channel like Internet faces several

In reality, there are diverse forms of security threats that demand techniques to be applied right at the time of data acquisition, storage, retrieval, processing and transmission leading to the emergence of different security techniques ranging from cryptography, data encryption, watermarking, secret sharing, remote user authentication, forgery detection, cyber security to recently introduced physical layer security to exploit wireless channel characteristics. The promise and the potential of Internet of Things (IoT) needs addressing privacy concerns at multiple levels to gain user trust. Ubiquitous Internet access allows the utilization of cloud resources on demand for processing as well as storage of IoT information for learning and analytics leading to its own challenges of security, the promise of blockchain techniques.

Course Coverage

- Cryptography, Crypto-analysis
- Digital Watermarking, Secret Sharing
- Cloud Security
- Chaos based image security
- Forgery detection, Biometric
- Medical information Security
- IoT Security
- Physical layer Security.

List of Speakers (Tentative)

Prof. Bhabani P. Sinha, ISI Kolkata
Prof. Sumantra Dutta Roy, IIT Delhi
Prof. Goutam Kumar Pal, ISI, Kolkata
Prof. Indranil Sengupta, IIT, Kharagpur
Prof. Shankar Prakriya IIT Delhi
Prof. Soumya Kanti Ghosh, IIT, Kharagpur
Prof. Bibhas Chandra. Dhara, Jadavpur University
Dr. Tanushyam Chattopadhyay, TCS
Mr. Kuntal Sidhartha, Lalbazar Cyber crime cell
Mr. Alok Maji, Lalbazar Cyber crime cell
Prof. Ruchira Naskar, IIEST, Shibpur
Prof. Shyamalendu Kandar, IIEST, Shibpur
Prof. Santi P. Maity, IIEST, Shibpur