

Cyber Security Trends and Technologies

14th - 18th May, 2018

Venue: NKN Room, Tutorial Block,
IIT Patna



Organized by

Department of
Computer Science and Engineering,
Indian Institute of Technology Patna
Bihta, Bihar, India.

Course Overview

As organizations and users increasingly rely upon distributed applications, online services and network infrastructures for assessing information and making critical business decisions, the topic of cyber security has become extremely significant. Over the last two decades, attacks on computer and network systems have transitioned from rare incidents to ubiquitous events. Hence securing distributed applications and networks and their management have become a necessity and a core part of any business whether it is in industry or government. With the developments in online services and social media, security affects every part of day to day lives.

Course Objective

1. Expose participants to cybersecurity concepts and advanced security techniques.
2. Expose participants to different types of security attacks in networks and systems
3. Enhancing the capability of participants to design of secure systems and networks, and to appreciate the various design choices
4. Expose participants to practical problems, solutions and standards in cyber security

Course Coordinators

Dr. Somanath Tripathy Associate professor Department of CSE IIT Patna Bihta, Kanpa Road, District – Patna Bihar, India – 801106 Ph: (0612) 302 8036 (O), 9608710115(m) Email: som@iitp.ac.in	Dr. Jimson Mathew Associate professor Department of CSE IIT Patna Bihta, Kanpa Road, District – Patna Bihar, India – 801106 Ph: (0612) 302 8347 (O), 8987379924(m) Email:jimson@iitp.ac.in
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About GIAN

Govt. of India approved a new program titled Global Initiative of Academic Networks (GIAN) in Higher Education aimed at tapping the talent pool of scientists and entrepreneurs, internationally to encourage their engagement with the institutes of Higher Education in India so as to augment the country's academic resources, existing accelerate the pace of quality reform, and elevate India's scientific and technological capacity to global excellence.

About IIT Patna

Indian Institute of Technology Patna, established in August 2008, is an autonomous institute of education and research in science, engineering and technology located in Bihta, 35 km from Patna. The new campus is spread over 500 acres of green land. As of today, IIT Patna has 10 academic departments that offer B.Tech, M.Tech, MSc and PhD programs. The faculties of this institute come with academic and research training from various institutes of excellence within the country and abroad. The recent publication records of the faculty with several practical constraints appear to be outstanding. It includes many reputed national and international journals.

About CSE Department

The department has three major programs- B.Tech CS, M.Tech CS and PhD. Additionally, there is a M.Tech in Mathematics and Computing program jointly with Mathematics dept. The CSE department is equipped with several research labs. The faculty members of the department are engaged with various research, teaching and administrative activities. The department also has a liaison with reputed national and international Universities.

Teaching Faculty



Prof. Vijay Varadharajan is now the Global Innovation Chair in Cyber Security at the University of Newcastle. Before he was Professor and Microsoft Chair in Innovation in Computing at Macquarie University (2001 - to March 2017). He was also the Director of Advanced Cyber Security Research Centre (ACSRC). Prof. Vijay has published more than 400 papers in International Journals and Conferences, has co-authored and edited 10 books on Information Technology, Security, Networks and Distributed Systems and have held 3 patents. He is a Fellow of the British Computer Society (FBCS), a Fellow of the IEE, UK (FIEE), a Fellow of the Institute of Mathematics and Applications, UK (FIMA), a Fellow of the Australian Institute of Engineers (FIEAust) and a Fellow of the Australian Computer Society (FACS). More details in <https://www.newcastle.edu.au/profile/vijay-varadharajan>

Host Faculty



Dr Somanath Tripathy is currently the Associate Professor of Computer Science and Engineering Department at Indian Institute of Technology Patna. He was the Associate Dean (Academic), IIT Patna during (2016-17). His current research includes Lightweight Cryptography, Computer and network security, Security and privacy issues in IoT and Cloud Systems. He has published more than 50 papers in high quality International Journals and Conferences. More details in <https://www.iitp.ac.in/~som>. Email:-som@iitp.ac.in.

Topics To be covered

14th May- 18th May 2018

This course will cover following topics:

1. Technology Scenery and Cyber Security Trends
2. Security Threat Modelling and Risk Analysis
3. Software and Network Attacks
4. Security Development Process and Security Architecture
5. Cryptographic Techniques
6. Security Protocols and Distributed Authentication Service
7. Security Models
8. Distributed Authorization Service Design
9. System Security Architecture
10. Cloud Security
11. Internet Security
12. Trusted Computing Technologies

Who Can Attend ?

- Executives, engineers and researchers from reputed industry and government organizations including R&D laboratories.
- Students at all levels (BTech/MSc/MTech/PhD) or Faculty from reputed academic institutions and technical institutions.



How to Register

Step 1: One Time Registration: In order to register for any GIAN course, candidates will have to get registered at the GIAN Portal of IIT Kharagpur using the following steps.

- 1.1 Create login and password at <http://www.gian.iitkgp.ac.in/GREGN/index>
- 1.2 Login and complete the registration form
- 1.3 Select course to be attended
- 1.4 Confirm your application and payment information.

Participants from Abroad	USD 100
Participants from Industry / Academic/ Research Organization	Rs 2000
Students & Research Scholars	Rs 1000

1.5 Pay Rs 500 (one time, non-refundable) online through payment gateway.

1.6 Download and print your "pdf file" of your enrollment application form for your personal records and copy of the same to be sent to course coordinator.

Step 2: Pay Institute Registration Fee:
Institute registration fee:

Note 1: Please mention the purpose of payment as "Registration Fees of Gian Course: 171013D01"

Note 2: The course fee will be made half for SC/ST students.

Account Details:

Account Name	Indian Institute of Technology Patna
Account No.	30957551934
IFSC Code	SBIN0017164
Bank Name	State Bank of India
Branch Name	IIT Patna, Bihta Campus
MICR No.	801002005

Step 3: Send the copy of transaction details:

For Registration Confirmation:
Mr. Sanjeet Kr. Nayak: (+91-9473480414)
Email: sanjeet.pcs13@iitp.ac.in

For Other Details:

Dr. Somanath Tripathy: (+91) 612 302 8036
E-mail: som@iitp.ac.in