REGISTRATION FORM

7-Day SERB Sponsored Workshop on
"Advanced Topics in Network Security and Cryptography"

(May 30th, 2022 to June 5th, 2022)

Name of the Participant: _____

Department:_____

Gender: _____

Pursuing Degree: MS/ M.Tech/ M.E / Ph.D.

Semester: _____

Qualification: _____

Organization: _____

Mobile No. _____

Email: _____

I agree to abide by the rules and the regulations governing the Workshop.

Place:
Date: *Signature of the Participant*

_____

Mr./Ms._____ is a student of our Institution and is permitted to attend the programme.

_____

Signature of the Head of (applicant's) Institution and Seal

Place:
Date:

Accommodation: A limited number of rooms in NITK Guesthouses and Hostels are available on First Come and First Served basis. THE HOST INSTITUTION SHALL BEAR the boarding and lodging within the NITK premise only. If unavailable, the participants need to make self-arrangements for their stay outside the NITK premise, which the organizers do not bear. For the lowest fare of the train or bus, TA will be reimbursed.

Venue: **Dept. of Information Technology NITK Surathkal Mangalore- 575025.**

Address for Communication

Dr. Bhawana Rudra

**Department of Information Technology
National Institute of Technology, Karnataka
Surathkal, Mangalore – 575 025**

E-mail: **atnsc.nitk@gmail.com**

Contact: 0824 – 247 3560

Course Contents

- Introduction to Network Security and Cryptography
- Blockchain in Cyber Security
- Role of Security in Banking Sector
- Concept of Quantum Computing and Quantum Crptography
- Challenges in various Domains of security and its Applications

---

7-Day SERB Sponsored Workshop on
"Advanced Topics in Network Security and Cryptography"

(May 30th, 2022 to June 5th, 2022)

**COORDINATOR
Dr. Bhawana Rudra**

Dept. of Information Technology, NITK

Organized By

**Department of Information Technology
National Institute of Technology, Karnataka
Surathkal, Mangalore – 575 025**

About NITK Surathkal

NITK Surathkal is a premier institution engaged in imparting quality technological education and a broad range of research, development and consultancy activities. NITK has carved a niche for itself among the best technical institutes in India and is consistently ranked among the top 10 technological institutes.

Department of Information Technology

Department of Information Technology was established in June 2000, The department offers undergraduate course B.Tech. in Information Technology, Post Graduate course M.Tech. in Information Technology, M.Tech. by (Research) and Doctoral Program (Ph.D) Current research activities of the department include Data Mining, Web services, Distributed Computing, Semantic Web Technology, Natural language Processing, Software Aging, Virtualization, Soft Computing, Wireless Sensor Networks, Computer Networks, Network and Cyber Security, Information Security, Internet of Things (IoT), Affective Computing, Big Data Analytics, Cloud/Edge/Fog Computing, Cloud Security, Databases, Healthcare Informatics, High Performance Computing, Information Retrieval, Social Multimedia/Social Network Analysis, Software Engineering, Blockchain Technologies, Future Internet Architecture, Mobile Software Engineering, Deep Learning Applications.

How to Reach NITK Surathkal

NITK is located in Surathkal on the scenic shores of the Arabian Sea, about 20KM north of the city of Mangalore and is well connected by Air, Rail and Road. The nearest domestic/international airport is situated at Bajpe (about 10KM from Mangalore) and the nearest railway station is Surathkal (3 KM). The NITK Campus is situated right on National Highway NH66 with very good bus connectivity from Mangalore, Udupi etc.

About the Program

A revolution use of the Internet in our day to day life has raised many attacks on IT infrastructure. Not only computer attacks but smart phone attacks are also increasing due to the growth of business transactions. To overcome the vulnerabilities, there is a need for cutting edge Research and Development efforts in Cyber security. To solve some of the security related issues, researchers adopted the BlockChain and Quantum technology which are the emerging technologies.

BlockChain is a leading software platform for digital assets. It is a data structure used to create a decentralized ledger and is composed of blocks in a serialized manner. It can be used for a variety of applications like financial transactions, smart properties, credential management, internet-of-things, supply chain management and even decentralized autonomous organizations (DAO).

Quantum computers have the potential to be millions of times more powerful than today's most powerful supercomputers. Quantum computers promise substantial speedups over conventional computers for many practical relevant applications such as quantum optimization, machine learning, cryptography, and many more.

This workshop explains; How vulnerable are current designs and how can they be mitigated? What are the cryptographic issues that need to be addressed? What is the importance of Quantum Computing, Are they tolerable to the vulnerabilities, how can we migrate to the quantum computers, Practical applications. This workshop covers finding answers to the above problems and much more by leading experts covering the broad range of the area including the fundamentals of BlockChain and quantum cryptography, applications showing the benefits of the technologies, as well as further challenges to deal with.

Objective of the Program

This program contains not only theory but hands-on sessions in the BlockChain and Quantum Computing. The course is designed for theory, use–case demonstrations, and research oriented discussion.

Course Deliverables:

This Program will provide an understanding of various methodologies, techniques, and tools related to BlockChain and Quantum Technology.

Resource Persons

Experts from Industry, Academia, R&D Organizations will deliver expert talks to make participants aware of the importance of Security in various domains, BlockChain Security, Quantum Cryptography along with various applications and Research Challenges along with Practical Sessions.

General Information

- **Eligibility:** The programme is open to PG and Ph.D Students of AICTE approved Engineering and Technology Colleges.

- **Maximum Number of Participants:** 25 (Selection on the basis of first come first serve)

- **Registration Fee:** Nil.

- **Deadline:** Completed applications should reach the Coordinator on or before 30th April 2022.

Finally, enter the details in the form shared below. Make sure to have the following documents ready, filled and duly signed application form in scanned format separate, for uploading (<10 MB each). Make sure to rename the file to your name.
1. Approval from Organization.
2. No Objection Certificate.

Form Link:
https://forms.gle/tMZidr7iEQFWHZjH7

Important Dates

Last Date for Receipt of Applications:

30th April 2022

Intimation of Selection by email:

10th May 2022