

Indian Institute of Technology
(Banaras Hindu University)
Varanasi-221005, UP, India

REGISTRATION FORM

Online Short Term Course on
IoT-enabled 5G Networks: Infrastructure and Security

(25th-30th January 2021)

Name _____

Designation _____

Institute _____

Gender: _____

Postal Address _____

Email ID _____

Telephone / Mobile No. _____

Undertaking:

I shall abide by rules and regulations and shall attend course. Failing which certificate may not be issued.

Signature of Candidate
(With Date)

Prof./Dr./Mr./Ms./Mrs./ _____ an
employee of our institute, is hereby sponsored
for the course. The applicant will be permitted
to attend the QIP short term course

Signature with date of Sponsoring Authority
Designation & Official seal

COORDINATORS

Dr. Ajay Pratap, Dr. Mayank Swarnkar
Assistant Professor
Department of Computer Science and Engineering
Indian Institute of Technology (BHU), Varanasi, UP
Dr. Kishor Sarawadekar
Assistant Professor
Department of Electronics Engineering
Indian Institute of Technology (BHU), Varanasi, UP

**FOUNDER OF THE BANARAS HINDU
UNIVERSITY**



Pandit Madan Mohan Malaviya ji

ADDRESS FOR CORRESPONDANCE

Dr. Ajay Pratap
Department of Computer Science and Engineering
Indian Institute of Technology (BHU)
Varanasi-221005, UP, India
Email: ajay.cse@iitbhu.ac.in

Indian Institute of Technology
(Banaras Hindu University)
Varanasi-221005, UP, India



**AICTE Sponsored Online QIP Short
Term Course**

On

**IoT-enabled 5G Networks:
Infrastructure and Security**

DURATION
25th-30th January 2021

CELEBRATING CENTENARY



JOINTLY ORGANIZED BY

**Department of Computer Science
& Engineering**

And

**Department of Electronics
Engineering**

**Indian Institute of Technology
(Banaras Hindu University)
Varanasi-221005, UP, India**

INTRODUCTION:

Next-generation cellular 5G network opens a new era of heterogeneous applications including smart environment, smart city, smart vehicle, smart home, and so forth to come together in order to make the world smart in the subsequent years. However, the growing next-generation applications lure hackers for creating vicious activities to unestablished the whole system for their benefit purposes. Therefore there is a need to keep smart users aware to access the secure applications in 5G networks. This one week workshop will cover various fundamental concepts and algorithmic aspects to design secure and robust above-said applications in cellular 5G networks. Participants will gain a thorough introduction to secure cutting-edge research in IoT-enabled next-generation advanced wireless networks concerning several real-time applications. Through this program, participants will learn the fundamental skill to understand, design, and implement algorithm frameworks for solving secure IoT-enabled real-world problems in 5G network.

COURSE CONTENTS:

1. Introduction to IoT-enabled wireless network
2. Applications and challenges of IoT-enabled 5G Cellular Networks
3. IoT-enabled Industry 4.0
4. IoT and Smart transportation
5. Smart IoT-enabled healthcare
6. Data Science & IoT
7. Big Data in IoT-enabled 5G Networks
8. Generic cyber attacks in IoT-enabled networks
9. Biometric and IoT: Security Aspect
10. Data and identity theft for IoT users
11. Denial of services in IoT networks
12. Defence mechanisms against cyber attacks in IoT-networks

EXPERTS:

Subject experts will be drawn from premier institutions like IITs, NITs, IISc and from the industry.

PROGRAM DURATION:

6 Days (25th -30th January 2021)

WHO CAN PARTICIPATE?

This program can be attended by faculty members from any branch of Engineering/ Science who are interested to work in the field of Internet of Things (IoT), 5G Networks and Cyber Security.

REGISTRATION:

Intending participants are requested to register their names by filling the attached registration form or by filling the online registration form. Scanned copy of the filled application needs to be uploaded in the form given in the registration link.

Registration Link: <https://forms.gle/wz5pbwbB7PoAYzyFA>

Last Date of Registration: 22nd January 2021

Registration Fees:

There is no registration fee for this short term course

ABOUT THE INSTITUTE:

The Indian Institute of Technology (Banaras Hindu University) owes its existence to Mahamana Pandit Madan Mohan Malviya, Bharat Ratna-the founder of the first residential university of modern India, the Banaras Hindu University. The three of the erstwhile engineering colleges of BHU, namely BENCO, MINMET and TECHNO, were merged to form the Institute of Technology (IT-BHU) in 1968 to provide an integrated educational base. The IT-BHU has been admitting students through the JEE conducted by the IIT's since 1972, and has been consistently ranked amongst the top few engineering institutions of the country. IT-BHU became IIT (BHU) in June 29, 2012 by an Act of Parliament. The Institute has maintained high academic standard since its inception. It has turned out luminary engineers and administrators who served the nation with great distinction.



ABOUT THE COMPUTER SCIENCE AND ENGINEERING DEPARTMENT:

The Department of Computer Engineering was established in July 1983. The department offers a 4 year course, B.Tech. in Computer Sc. & Engineering, 5 year Integrated Dual Degree (B.Tech. and M.Tech.) in Computer Sc. & Engineering from 2005-2006, and Ph.D. degree in various specializations of Computer Sc. and Engineering. The faculty members of the department have international experience and training. The departmental research is focused in the areas of Artificial Intelligence, Neuro Computing, Parallel Processing, Software Engineering, Image Processing and Computer Vision, Medical Image Processing, Pattern Recognition, Datamining and Webmining, Biometrics, semantic web, Natural Language Processing (NLP), Machine Learning, and Information Extraction. Besides plan funding, the Department attracts financial inputs through externally funded projects and alumni donations.

ABOUT THE ELECTRONICS ENGINEERING DEPARTMENT:

The Department of Electronics Engineering came into existence as an offshoot of Electrical Engineering Department in the year 1971. The Department offers Bachelor, Master and Doctoral programs in Electronics Engineering with the major thrust areas of Microelectronics, Microwave Engineering, Digital Techniques & Instrumentations and Communication Systems. The Department has been actively engaged in research since its inception as evidenced by the research publications

