



St. Francis Institute of Technology
An Autonomous Institute, Affiliated to University of Mumbai

DEPARTMENT OF ELECTRONICS & TELECOMMUNICATION ENGINEERING

NeXus 2K25: The Evolution of Networking (IETE approved STTP)

(8th March – 13th March 2025)

Academic Term: Jan-Jun 2025

Title of the program: NeXus 2K25: The Evolution of Networking (IETE approved STTP)

Department: Department of Electronics and Telecommunication

Report by the Course Coordinators

Description: Department of Electronics and Telecommunication Engineering has organized IETE approved One week short term training program (STTP) on the topic “NeXus 2K25: The Evolution of Networking”, for the UG PG PHD and Faculty. This program held during 8th March– 13th March 2025 aims at spanning the skill gaps and making students industry ready.

Course objectives of IETE approved STTP-NeXus 2K25:

1. To explore the architecture and future trends of advanced networking technologies, including 6G and IoT innovations.
2. To develop a strong understanding of the evolution of wireless networks, from 4G to 5G and beyond, and their industrial applications.
3. To introduce and examine key networking trends, technologies, and future directions, with a focus on emerging innovations in computer networking.
4. To understand the complexities of network security in the cloud era, emphasizing cyber threats, defense strategies, and machine learning-based network optimization.
5. To gain expertise in cloud networking and virtualization, focusing on how these technologies are transforming modern infrastructure.
6. To impart knowledge of best practices and principles in computer security, equipping participants with the skills to fortify networks against evolving cyber threats.



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ST. FRANCIS INSTITUTE OF TECHNOLOGY
(Autonomous college)
Approved by AICTE | ISO 9001:2015 Certified | NAAC 'A' Grade
Permanently affiliated to University of Mumbai | All eligible UG courses NBA Accredited

IETE

NECUS 2K25
THE INNOVATION OF NETWORKING

WITH APPROVED ONE WEEK, SHORT TERM TRAINING PROGRAM
GAIN A FURTHER SKILL IN NETWORKING
THE KING OF AI AND IoT TECHNOLOGY IS

DR. VIMAL BHATIA

- Professor, IT Indore
- PhD, Expertise in Wireless Communication
- Over 12 years of industrial experience in 4G, Audio-Video Processing, and Signal Processing
- Researcher in OFDM, MIMO, Cognitive Radio, AI in Networks, and 5G technologies
- Worked with H3G, Sony Pictures, Warner Bros, Accenture, UK Defence, and More

3pm to 5pm
Online

Participants: S, S, P, S, D, Dr. Kevin Noronha, V, 34 others, SOHAM MULE_223058

Performance Analysis of Heterogeneous Networks with Non-orthogonal Multiple Access for 5G and beyond Systems

Case I: User offloaded on CCU, User offloaded on CEU. Case II: NOMA Transmission with α , NOMA Transmission with β .

P. Swamy, V. Bhatia, S. Vuppala and T. Ratnarajah, "Outage Analysis of NOMA-HCN Using Repulsive Point Process", IEEE Globecom 2017, Singapore, 2017.
P. Swamy, V. Bhatia, S. Vuppala and T. Ratnarajah, "User Fairness and Performance Enhancement for Cell Edge User in NOMA-HCN with Offloading", IEEE 85th Vehicular Technology Conference, Australia, 2017.

Graphs showing Ergodic rate of an MU, Ergodic rate of an FU with offloading without NOMA, Ergodic rate of cell center user with offloading, and Ergodic rate of cell edge user with offloading. Parameters: with $\text{load}_{\text{CCU}} = 0.5$ dB, with $\text{load}_{\text{CEU}} = 15.02$ dB, with $\text{load}_{\text{CCU}} = 15.02$ dB, with $\text{load}_{\text{CEU}} = 15.02$ dB.

Participants: V, S, P, POURNIMA WARE_223109, Dr. Kevin Noronha, SUREKHA MALI, Pradip Ghosh, SEEMA JADHAV, 52 others, SOHAM MULE_223058

Participants: Dr. Suvarna Bhise, VALENTINA BASKER, SOHAM MULE_223058, Dr. Kevin Noronha, SIEM CHRISTIAN_222020, Bhalchandra Gokhale, LATIKA AGRAWAL, 37 others, Shilpa Chaman.

In-call messages

Let everyone send messages: ☒

You can pin a message to make it visible for people who join later. When you leave the call, you won't be able to access this chat.

YES MAM
yup
Pournima Ware 3:47 PM
Yes
RAMJEE YADAV 3:47 PM
We know mam
You 4:50 PM
thak yo madam
Hover over a message to pin it
Swati Patel 4:50 PM
thank you madam

Send a message to everyone

4:51 PM | iete_sttp



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Dr. Suvarna Bhise (Presenting)

3G wireless System –IMT system

The diagram illustrates the architecture of a 3G wireless system (IMT system). At the top, the 'Interface for Interworking' connects to three external networks: GSM (GPRS), GPRS (GPRS), and IP Network. These networks are connected to a central 'Flexible Assignment of Core Network and Radio Access Network'. This central hub is further connected to various radio access technologies and core network components. On the left, 'Radio Access (UTR)' is shown. On the right, 'Core Network (CN)' is shown, which includes 'GSM (GPRS)', 'GPRS (GPRS)', and 'IP Network'. Below the core network, several specific technologies are listed: 'Direct Spread UTRA FDD', 'Time Code UTRA TDD', 'Multi Carrier WCDMA', 'Single Carrier WCDMA', 'Frequency Time OFDM', and 'Frequency Time OFDM'. The diagram is labeled 'ITU International Telecommunication Union' and 'GPRS Frequency Division Duplex'.

Dr. Suvarna Bhise

LATIKA AGRAWA

Dr. Kevin Noron...

SHEM CHRISTL...

JAYASUDHA K...

SOHAM MULE_...

42 others

Shilpa Chaman

https://meet.google.com/bzz-ztmk-pcg?authuser=0

The screenshot shows a Google Meet session with several participants. The participants are arranged in a grid. The participants visible are: JAYASUDHA KOTI, Shilpa Chaman, Dr. Pankaj Pramod Chitte, Dr. Kevin Noron..., SOHAM MULE, Bhoichandra Gokhale, and SEEMA JADHAV. There are also icons for '50 others' and '42 others'. The bottom of the screen shows the Google Meet interface with icons for mute, video, chat, and other controls. The time is 5:06 PM and the session is titled 'loto_sttp'.

JAYASUDHA KOTI

Shilpa Chaman

Dr. Pankaj Pramod Chitte

Dr. Kevin Noron...

SOHAM MULE

Bhoichandra Gokhale

SEEMA JADHAV

50 others

42 others

5:06 PM | loto_sttp



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Sr. No	Organized at/by	Topic	Duration	Target Audience	Number of students participated	No of students eligible for certificates	No of students with Grades			Certificate issued (Y/N)
							A	B	C	
1.	EXTC Dept., SFIT	NeXus 2K25: The Evolution of Networking (IETE approved STTP)	5 Days	Faculty Members, PG Students, UG Students	84	84	83	1		Y

Ms Shilpa Chaman
A.P EXTC Dept.
(Course Convener)

Dr. Kevin Noronha
HOD, EXTC Dept
(Course Convener)