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 Prof. Sanjay, Dean (R & C), NIT Jamshedpur  
 Dr. G L Garg, Assistant Director, ATAL Academy

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Mr. B N S Munda	Dr. Akhilesh Kumar
Mr. Dilip Kumar	Dr. Jayendra Kumar
Dr. Mayank Srivastava	Dr. Nagendra Kumar
Dr. Ajay Kumar	Dr. Basudeba Behera
Dr. Basanta Bhowmik	Dr. Kunal Singh
Dr. Swagatdeb Sahoo	Dr. Mrutyunjay Rout

**Schedule**

	9:00 AM to 11:00 AM		11.30 AM To 1.30 PM		2:30 PM To 4.30 PM		4:35 PM To 5:00 PM
9-8-2021	Inauguration		Session 1 Introduction to telemedicine technology		Session 2 Wearable devices and telemedicine		
10-8-2021	Session 3 Design of telemedicine system using mobile telephone		Session 4 Wearable sensors for remote monitoring of chronic patients	Lunch Break	Session 5 Quality of service of wireless telemedicine for e-health services		
11-8-2021	Session 6 Medical device authentication and authorization Protocol		Session 7 The role of telemedicine in helping to manage hypertension		Session 8 Antenna for telemedicine communication devices		
12-8-2021	Session 9 Telemedicine during disaster		Session 10 High frequency sensors for robust transmission in telemedicine system	Test	Session 11 Development of a portable telemedicine tool for remote diagnosis application		
13-8-2021	Session 12 IoT-enabled unsupervised health monitoring		Session 13 Internet of medical things for smart healthcare	Feedback	Session 14 Health care environment with body area network		Valediction

**Faculty Development  
Program**

**on  
Telemedicine  
(FDPT-2021)**

August 9-13, 2021



**Organized by**

**Department of Electronics and Communication Engineering  
 National Institute of Technology Jamshedpur  
 in collaboration with  
 AICTE Training And Learning (ATAL) Academy, Kolkata**



**Venue:**

On your Desktop/Laptop/Tablet/Smart Phone with internet connectivity  
 from anywhere

### About NIT Jamshedpur

National Institute of Technology, Jamshedpur earlier known as Regional Institute of Technology (RIT) was established on 15th August 1960 as a joint venture of Government of India and the Government of Bihar in the chain of Regional Engineering Colleges in India with the aim to generate technical graduates of highest standards who could provide technological leadership to the region. On 27<sup>th</sup> December 2002, RIT was transformed to National Institute of Technology, Jamshedpur with the status of a Deemed University. The Institute has 12 departments including engineering, science and humanities. It has more than 200 faculty, 4000 students and 150 administrative and supporting staff. It has a self-contained campus located on the outskirts of Jamshedpur on 341.3 acres of sprawling, rolling hilly, wooded land. It combines natural beauty of countryside with urban glamour of a mineral-rich industrial area in the state of Jharkhand. It is surrounded by giant and medium scale industries and reputed Institutes. Being the cradle of technical excellence, the institute took no time in starting online teaching to combat the COVID-19 crisis.

### About the Department

Department of Electronics and Communication Engineering was started in 1988. The department aims to be a national leader in imparting quality education, carrying out research and technology development. The department provides an outstanding research environment and offers academic program leading to B.Tech, M Tech and Ph.D. degrees

### About ATAL Academy Kolkata

AICTE Training And Learning (ATAL) Academy was digitally announced with establishment of four Academies in the country at Jaipur, Vadodara, Guwahati and Trivendram by MHRD, Govt. of India on 24.9.2018. In September 2019, eleven new ATAL Academies have also been established at Dehradun, Kanpur, Bhopal, Bangalore, Chennai, Murthal, Srinagar, Patna, Kolkata, Hyderabad and Pune. Some of the objectives of ATAL being:

→To support technical institutions in fostering research innovation and entrepreneurship through training

→To stress upon empowering technical teachers & technicians using Information & Communication Technology

→To provide a variety of opportunities for training and exchange of experiences such as workshops, orientations, learning communities, peer mentoring and other faculty development programmes.

### About the Short Term Programme (FDPT-2021)

An array of healthcare stakeholders - from payers to providers to drug developers - are increasingly joining forces with telehealth companies to expand access to “socially distant” care. Simply defined, telemedicine allows patients to communicate with a healthcare provider using technology, as opposed to physically visiting a doctor’s office or hospital.

With telemedicine, one can discuss symptoms, medical issues, and more with a healthcare provider in real time using video, online portals, and email. Using telemedicine, one can receive a diagnosis, learn his or her treatment options, and get a prescription. In cases where it’s necessary, healthcare providers can even monitor readings from medical devices remotely to keep an eye on patient’s condition.

There are three common types of telemedicine:

- Interactive medicine: Also called “live telemedicine,” this is when physicians and patients communicate in real time.
- Remote patient monitoring: This allows caregivers to monitor patients who use mobile medical equipment to collect data on things like blood pressure, blood sugar levels, etc.
- Store and forward: Providers can share a patient’s health information with other healthcare professionals or specialists.

Since the 1950s, healthcare providers have been offering remote services. Telemedicine first began on landline telephones. With the advancement of technology, telemedicine has grown to offer services in a variety of ways. This includes online portals managed by your personal physician, video software that allows for remote consultations, and apps managed by companies offering telemedicine services like GoodRx Care.

### How do telemedicine services work?

Anything that requires immediate, hands-on care should be handled in person. However, telemedicine is very useful for simple issues and follow-up consultations. It’s helpful for a variety of other health issues including psychotherapy and tele-dermatology, which offers consultations of moles, rashes, etc. Colds and flu, insect bites, sore throats, diarrhea, and pink eye are some other common issues addressed using telemedicine.

This faculty development program is designed for researchers and teachers in the fields of science, medicine, design, and engineering. Anyone with an interest in telemedicine, wearable technology and basic knowledge of electronics is welcome to join. The idea of this program is to de-mystify telemedicine.

FDPT-21 will be conducted online using CISCO WebEx Application and the registered participants can interact online using their Desktop/Laptop/Tablet/Smart Phone with internet connectivity from anywhere.

### Who can attend FDPT-2020

Participation in this FDP is open to the faculty members of the AICTE approved institutions, research scholars, PG students, participants from Government and Industry (Bureaucrats and Technicians) and staff of host institutions.

### Registration Fees

There is no Registration fee from any participant.

### Number of seats: 200

### Topics to be covered

- Telemedicine Definition
- Difference between Telemedicine and Telehealth
- History of Telemedicine
- Benefits of Telemedicine
- Shortcomings of Telemedicine
- Types of Telemedicine Services
- Applications of Telemedicine
- Which medical specialties can use Telemedicine
- Business Association Agreement (BAA) and HIPAA
- Telehealth Regulations
- Telemedicine during disaster
- What to consider before starting telemedicine practice
- Different Types of Telemedicine Software Solutions
- What are the Barriers of Telemedicine
- Future of Telehealth

### Resource Persons

The course content will be delivered from a pool of resource persons on the subject from leading industries and prestigious academic institutions.

### Pedagogy

PPT slides handout, online lecturing, and demonstration videos.

An online test will be conducted at the end of the program. Digital certificate from AICTE ATAL Academy will be issued to those who have attended the program without any absenteeism and scored minimum 60% marks in the test.

**Email for communication: [fdpt2021@gmail.com](mailto:fdpt2021@gmail.com)**

**Registration link: <https://atalacademy.aicte-india.org/signup>**

**Selection will be done on first-come first served basis.**

**Last Date for registration: 4-8-2021**