

## ABOUT KITS, GUNTUR

KKR & KSR Institute of Technology & Sciences popularly known as KITS has set for itself the mission to churn out professional deft, academically-bright and socially responsible individuals to contribute its wee bit to the knowledge society. The college" is situated in a spacious 11 acres of land in- an idyllic rural setting. Despite being a college with 12 years of academic standing, the college is making rapid strides in establishing good practices in teaching-learning processes. It's a pleasure to disclose the achievements made by the students of KITS in all spheres, of participation at the university level. It's proud moment for our institution and students who have topped the university in various faculties of Engineering The college has good infrastructure and is making concrete efforts in building an industry-institute beneficial corridor through addressing both the potential resources of the region and also meeting the transnational technical requirements. Though main impetus of our college is technology it also supports and encourages students to involve in various social service activities like Blood Donation, Donations to orphanages, old age homes, and poor feeding. College has NAAC accreditation of "A" Grade for 5 years, NBA accreditation for 3 years and permanent affiliation of JNTUK Kakinada.

## ABOUT THE ECE DEPARTMENT:

The Department of Electronics and Communication Engineering accredited by NBA. The department has grown manifold and has become one of the important departments in the college. The department offers a four year B. Tech degree programme and a two year M. Tech Degree programme. The department maintains a close liaison with industries and ensures that students are trained as per the current needs of the society. The curriculum provides in depth knowledge of both hardware and software skills. The department is full- fledged with adequate infrastructure.

## CHIEF PATRON

**Sri. K. Subba Rao**, Chairman,  
KKR & KSR Institute of Technology & Sciences.

**Sri. K. Sekhar**, Secretary,  
KKR & KSR Institute of Technology & Sciences.

## PATRON

**Dr. P. Babu**, Principal,  
KKR & KSR Institute of Technology & Sciences.

**Dr. K. Hari Babu**, Director (Academics)  
KKR & KSR Institute of Technology & Sciences.

## CONVENER

**Dr. Sk. Sadulla**, Professor & Head  
Dept. of Electronics & Communication Engineering,  
KITS

## FDP COORDINATOR

**Mr.K.Mallikarjuna Rao**, Asst. Professor of ECE.

## CONTACT PERSON

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## KKR & KSR INSTITUTE OF TECHNOLOGY AND SCIENCES Guntur, Andhra Pradesh



Announces

## A Five Days Faculty Development Program On Recent Advancements in Photonic Devices and their applications

(Feb 8<sup>th</sup> - Feb 12<sup>th</sup>, 2021)



Organized by

Department of Electronics & Communication  
Engineering  
(NBA Accredited Department)  
KKR & KSR institute of technology & Sciences  
Vinjanampadu, Guntur, Andhra Pradesh-522017  
India

## ABOUT FACULTY DEVELOPMENT PROGRAM

This 5 days Faculty Development Program held at KKR and KSR Institute of Technology and Sciences, Guntur will unite specialists to investigate recent improvements in photonic advances and the future chances and difficulties that they present.

Photonic innovations have a wide scope of recent and future applications including sensors, optical PCs, cutting edge lasers and LEDs, light communications (LiFi), water refinement, quantum data handling and the sky is the limit from there.

### OBJECTIVES OF THE FDP:

- Primary objective of this program is to give an exposure on ongoing patterns in Photonic Devices and their applications.
- During this program our focus is on the basics of Photonics, Photonic Crystal fibers, CMOS compatible waveguides/sensors/ devices, fabrication aspects of special fibers.
- To develop skills to utilize equipment, software, etc. for better understanding of different phenomena and challenges of photonics technology through the interaction with experts/faculties/scientist.
- This program can serve as an excellent platform to get the concepts of both basics and recent developments in photonics technologies, to the teaching and research community associated with the departments of Electronics and Electrical technology, Physics, Computer Science, etc.
- Finally, this program will provide a unique opportunity to identify and to discuss potential collaborations among young researchers, faculties, scientists, etc.

### COURSE CONTENTS

The following topics will be covered in the FDP. There will be theory as well as hands on/ simulation classes.

- Essentials of Photonic Crystals
- Types of Optical Waveguides
- Optical Communications
- Photonic Devices
- Multicore Fiber Technology and their Applications
- Photonic Crystal Fibers and their Applications
- Materials and Techniques for Fabrication of Fibers

### OUTCOMES OF THE FDP:

- Before the finish of the program, the members ought to be capable comprehend the ideas of Photonics Communications and gadgets, fiber manufacture, photonics innovation, and so on.
- They will have the option to deal with optical instruments/estimations and get inspired for additional examinations and research right now.

### SPEAKERS

#### Dr. G. Thavasi Raja

Assistant Professor,  
Dept. of ECE, National Institute of Technology, Trichy

#### Dr. Anith Nelleri,

Professor, School of Electronics Engineering,  
VIT University, Chennai.

#### Dr. P. Suresh,

Professor, ECE,  
Vel Tech Rangarajan Dr. Sagunthala R & D Institute of Science and Technology Chennai.

#### Dr. J. Mohanraj,

Assistant Professor, ECE,  
Vel Tech Rangarajan Dr. Sagunthala R & D Institute of Science and Technology Chennai.

#### Dr. M. Valliammai,

Assistant Professor, ECE,  
Vel Tech Rangarajan Dr. Sagunthala R & D Institute of Science and Technology Chennai.

#### Dr. R. Vasantha Jayakantha Raja,

Assistant Professor, School of Electrical and Electronics Engineering,  
SASTRA Deemed University, Thanjavur.

#### Dr. N. Vinodhkumar,

Assistant Professor, ECE,  
Vel Tech Rangarajan Dr. Sagunthala R & D Institute of Science and Technology Chennai.

#### Dr. N. Ayyanar,

Research Associate, ECE,  
National Institute of Technology, Trichy.

#### Dr. T. Sridhrshini,

Research Associate, ECE,  
Madras Institute of Technology,  
Anna University, Chennai

#### Dr. N. Aravind,

Professor, S&H,  
KKR & KSR Institute of Technology and Sciences

**REGISTRATION:** There is No Registration Fee. To join this Online FDP, you are requested to register your name by signing up the below link:

<https://www.aicte-india.org/atal>

### IMPORTANT DATES

Last date of Registration (Online) Feb 7<sup>th</sup> 2021

### GENERAL INFORMATION

Other Important Information for participants:

- This FDP is only for faculty & research scholars (Ph.D & PG) of AICTE approved technical institutions.
- Seats are limited (only 300), participants are selected by organizers on the basis of first come first serve.
- On completion of the course and assessment the certificates will be awarded to successful participants by respective ATAL Academy.

### COURSE SCHEDULE

#### Day 1 (Forenoon)

- Photonic crystal fibers and their applications
- Application of nonlinear photonic crystal fiber: super continuum and pulse compression

#### Day 1 (Afternoon)

- CMOS Compatibility of Photonics

#### Day 2 (Forenoon)

- Large mode area fibers for high power Applications
- Super continuum fiber sources in MIR Wavelengths

#### Day 2 (Afternoon)

- Multicore fibers for MIR wavelength components

#### Day 3 (Forenoon)

- Fiber in spectro-microscopy development Digital holography
- Photonics crystals based passive optical network components

#### Day 3 (Afternoon)

- Building digital holographic system for three-dimensional information processing

#### Day 4 (Forenoon)

- Fiber Lasers and Applications
- Bio sensors in Photonics

#### Day 4 (After noon)

- Fit India Movement

#### Day 5 (Forenoon)

- Nano material based Optical sensors
- Optical Trapping & Ongoing research in Photonics

#### Day 5 (Afternoon)

- Assessment Test, Feedback & Valedictory.