## 8. Next Generation Wireless Communications

Wireless Communications through Reconfigurable Intelligent Surfaces. AI, machine learning and data analytics for wireless communications. Interference modeling, management, cancellation and alignment PHY strategies for low-rate, sporadic and asynchronous communications. MIMO, massive MIMO and cloud-RAN Cooperative, device-to-device and multi-hop communication. Cognitive radio, spectrum sensing Content caching and storage in wireless networks Molecular and NANO communications Beyond 4G

## 9. Quantum and optical Communications

Free Space Optics & QUANTUM Communications, Architectures of Optical Payload Design for space and Line of sight communications, Optical Payload Alignment, tracking for Testing and data transfer, Quantum communications cryptography & entanglement, Quantum key distribution (QKD), entangled QKD, stochastic QKD, heralded QKD, Cryptography protocols, Entangled states and entangled beams, Pulsed laser sources, Frequency, and polarization entanglements, Quantum satellites, quantum cube satellites, Quantum UAV, drone, robot and aircraft research and applications.

### Important Dates

| | |
|---|---|
| Submission of Full Paper | - 16th May, 2021 |
| Notification of Acceptance/Revision request | - 20th May, 2021 |
| Submission of Camera-Ready Paper | - 24th May, 2021 |
| Conference Dates | - 28th-29th May, 2021 |

### Registration & Publication Fee

**General: Rs. 11,000/-**    **IETE members: Rs. 10,700/-**

Accepted papers will be published and indexed in Springer Series Conference Proceedings (Scopus & Web of Science) **Intelligent Systems Reference Library.**

https://forms.gle/yUwmRtTcdic6XJYk8

1. Paper should contain more than 14 pages and maintain plagiarism below 10%
2. Paper should submit in Springer single column template that we can provide after review process.

### Manuscript Upload Link :

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### Conference Website:

https://www.kluniversity.in/ece/ARFCOM-2021/Default.aspx

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VIRTUAL MODE

# National Conference on ADVANCED RADIOFREQUENCY COMMUNICATION SYSTEMS & COMPUTING (ARFCOMC-2021)

On **28th** & **29th** May, 2021

In Association with **IETE, India.** (Vijayawada Chapter)

**Electronics & Communication Engineering**

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## KONERU LAKSHMAIAH EDUCATION FOUNDATION:

Established in 1980, KLEF is a pioneer in the field of Engineering education and research in India. K L E F has been declared as Deemed to be University by MHRD, Government of India and accredited by National Assessment and Accreditation Council (NAAC) as "A++" grade University. It is recognized by the Department of Scientfic and Industrial Research (DSIR) as Public Funded Research Institute(PFRI). It also has collaborations for conducting Joint research with a number of Institues around the globe. It received "The best educational Institute award in engineering" by Asian Confederation of Business. In 2019 UGC, MHRD declared this institution as Category I. The University was also ranked 41 under NIRF 2020

## DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING:

Department of ECE was established in 1983. The department has strong back-up of 234 faculty members, specialized in core areas of ECE. Among 87 faculty members are PhD holders and 121 faculty members are pursuing PhD. Department houses several rich industry experience faculties to cater the industry needs into academics. The Department has a total of 7 State of the Art laboratories, 2 Centers of Excellence and 8 Research Centers which are well equipped to the highest level of sophistication and cater to the needs of UG, PG and PhD students. These labs have specific emphasis on Research and Development activities. The Students have full and free access to software/ tools like LabView, Xilinx, Mentor Graphics, Ansys HFSS, CST, Electric CCS, Octave, Logisim, Multisim, Code composer studio etc. There is an emphasis on PRACTICAL ORIENTATION of the students towards engineering field which has led to the concept of OPEN LABs and PROJECT BASED LABs in the Department. The students have OPEN access to all the laboratories from 7.00 A.M to 7.00P.M which they can utilize to explore beyond the curriculum and experiment on innovative thoughts/ideas.

The Department has 12 Crores worth of Sponsored projects from DST-FIST, DLRL, ISRO, DEAL etc. 2000+ International Journal papers, 600+ International Conference papers and 150+ National Conference papers by the faculty. Certificate courses in advanced areas are conducted every semester. Faculties from Foreign universities are involved in regular teaching activity. Department's academic calendar is highlighted by regular seminars, group discussions, student paper contests, Industry Alliance and Student Personality Development Programs for all round development of students in National & International events. Student associations namely 'Pulse' to conduct technical events and 'Hope' to conduct social service activities. Placement in leading core communication companies like Amphenol Antennas, BSNL, MTNL, Reliance Communications, Tata Telecom, Hutch, Bharti Telecom, Nokia, CISCO, IBM, Intel, Agilent, Alcatel, AT & T Ericsson, Honeywell, Bosch, National Instruments, Texas Instruments, HCL and others.

## ABOUT IETE:

Founded in 1953,The Institute of Electronics and Telecommunication Engineers (IETE) is leading professional society devoted to the advancement of Science & Technology.

IETE serves more than 60,000 members and 64 centers spread all over India. TO keep pace with technological development and achieve the mission of advancing the profession by organizing conferences and symposia, seminars, workshops and brainstorming session for continued knowledge up-gradation of its members.

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Vijayawada Centre of the IETE ,was established in 1986 as a sub-Centre and upgraded into a Local Centre in 1992. The strength of the centre is above 400 Corporate members and more than 600 student members , and the center have more than 4500 ISF members.

## SCOPE OF ARFCOMC-2021 CONFERENCE:

Two-day National Conference (ARFCOMC-2021) will be organized by KLEF during 28th & 29th, May 2021. A number of proven personalities from Industry, Research Organizations and Academic Institutions have given their consent to grace the conference to emphasize the benefits of Recent Trends in Electronics and Communication Engineering for a wide variety of engineering applications.

## CONFERENCE THEME: (TRACKS)
### 1. RF Systems and Applications
The modeling, design, fabrication technologies, testing, Voltage and current-mode and simulation of filters. Integrated and discrete filters, Passive and active filters, Variable filters, characterization, and tenability. RF & Microwave Engineering. Optimization techniques in RF/Microwave & Antenna Design. Machine learning modeling in RF communications. Integration of optical & wireless Networking. RF Front-End Circuits & Systems. Big data Analytics & Data management in+ RF system Design.

### 2. Antennas and Microwave Technology
Advanced Antennas, Antenna Array synthesis & pattern tenability. Electromagnetic Imaging Electromagnetic Non distractive testing. Radio frequency energy harvesting. Intelligent Autonomous Communication. Computational Electromagnetics Numerical modeling analysis in Microwave engineering. Data science with computing Algaritms for Antenna Design. Electromagnetic and photonics. EMI/EMC.

### 3. Navigation Systems and Vehicular Communications
Ground and Space based global and regional navigation satellite systems. Recent advancements in multi-frequency multi-constellation positioning. Emerging autonomous navigation systems. Design, Control, and challenging prospects for secure automotive communication applications. Vehicle to vehicle, and vehicle to infrastructure communications. Vehicular networks routing, protocol design, network optimization and security issues.

### 4. Data Communication & Computing
Networks and Protocols, Cyber Security, Cloud Computing, Multimedia and Annihilation, Futuristic optical networks and protocols, 5G wireless networks and Allied fields.

### 5. Millimetric-wave and Radar Applications
THz Imaging and Spectroscopy. THz, Infrared, Optoelectric Devices, Sources, and Systems, Combs and Resonators. Metamaterials and Graphene. Emerging Areas in Terahert., Spectroscopy, Imaging, and Interferometry Terahertz Laser Systems. THz Time and Frequency Domain and Extraction. Optical THz Techniques.

### 6. Satellite Communications and its Applications
Small satellites and CubeSats: Recent successes, new directions and emerging technologies in small satellite development and communications applications. Satellite Ground Segment and data transfer, geo-independent platforms for space applications.

### 7. Robotic communication
Intelligent Robotics and Mechatronics, automation, control systems- Locomotion and manipulation in biological and robot systems- Micro Electro Mechanical Systems (MEMS) and Micro Robotics- Multi-Agent Collaborative Systems (MACS)