VIGNAN'S
Foundation for Science, Technology & Research
(Deemed to be UNIVERSITY)
-Estd. u/s 3 of UGC Act 1956

IEEE
HYDERABAD SECTION

IEEE
GUNTUR SUB SECTION AMARAVATI

IEEE Conference
on

IoT FOR RURAL HEALTHCARE (CIRH-2021)

16th - 18th December 2021

Hosted by
Department of
Electronics & Communication Engineering
Accredited by NBA

Vadlamudi, Guntur Dist. - 522 213, Andhra Pradesh, India. Tel : 0863 2344700, Extn : 266/222
www.vignan.ac.in | Toll Free 1800-425-2529

ABOUT VFSTR UNIVERSITY

VFSTR University, the flagship institution of Vignan Group of Educational Institutions, is a NAAC 'A' accredited institution, ranked 100 by National Institutional Ranking Framework of MHRD, Government of India. Located in serene environs of Vadlamudi on the Guntur-Tenali highway, the university with its sprawling play grounds, campus greenery and imposing academic blocks, is a virtual haven of rural quiet and idyllic beauty. Since its inception in 1997, the institution has been striving to promote high standards in technical education to aid in the career building of many students who step into its portals. Through diverse programs and updated curriculum by imparting industry exposure and hands-on skills, the university trains its students into competitive and global professionals, with ethical consciousness and social awareness. All the departments are supported by a good mix of young and senior faculty with a rich research, teaching and industry background. The sophisticated laboratories and research centres make it one of the most preferred institutions for the aspirants of engineering studies.

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

Knowledge of electronics is percolating into every discipline of engineering due to its applications in many modern technologies. Department of ECE,VFSTR comprises of well experienced and young enthusiastic faculty, who are recruited from premier institutes of India like IITs/NIT and abroad. Department offers two UG (ECE & BME) and two PG programs in VLSI and Embedded system which are the major thrust areas of Electronics industry. Department is also offering Ph.D programme in various specialization of ECE & BME. ECE department is equipped with the three centers of excellence (RF Engineering, UAV, and Instrumentation) and research centers in the area of IoT, Machine learning, Embedded system, Wireless Sensor Networks, etc., which helps the students, to become industry-ready professional as well as entrepreneurs. Persistent dedication of skilful & experienced faculty towards students, motivates the students to study, grow, and lead in a stimulating educational and intellectual atmosphere. Apart from the academics, we highly motivate the student to participates in various sports and extra-curricular activities. Department has a consistent placement record. Every year more than 85% of students placed in well reputed MNCs. Out of which nearly 35% placed in core companies and 15% students prefer higher education in the internationavl arena.

ABOUT THE CONFERENCE

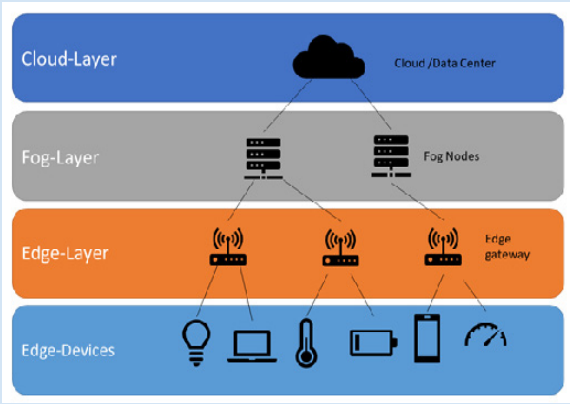
The IoT for Rural Healthcare (IoT Applications for Rural Sector)is focused on research and emphasizes the latest technological advancements. The conference aims to provide outstanding opportunity for both academic and industrial communities to address new trends and challenges on the topics relevant to today's emerging technologies in the field of IoT applications in healthcare and its allied areas medical devices, networking, and telemedicine. The conference comprises keynote addresses, invited talks, referred paper and poster presentations, pre-conference tutorials, product exhibition, and panel discussion. The vision of the IoT for Rural Healthcare (IoT Applications for Rural Sector) is to promote brainstorming, so that critical issues pertaining to individual research activities can be addressed and ideas can be exchanged through extensive discussions. The conference focuses on specific engineering streams - allowing the speaker to drill deep into the issues and ensure actionable information that can put into use very next day.

CONFERENCE TRACKS

Conference includes plenary lectures, key note addresses, invited talks, tutorials, Product exhibition, contributed research articles from academia and industry across the globe

Sensors and Edge Devices

- Wearable Sensor Systems
- Wireless sensor and Actuator Networks
- Bio-sensors and Transducers
- Biomedical Instrumentation
- Bio-MEMS
- Mobile and Smartphone Sensing
- Interfaces
- Sensor data streaming
- Software for IoT
- Storage and Data Management for IoT
- Embedded Computer and System
- Computing for IoT
- Cloud and Fog Computing
- Edge and Mobile Computing
- Platform Based Computing
- Block chain for health data

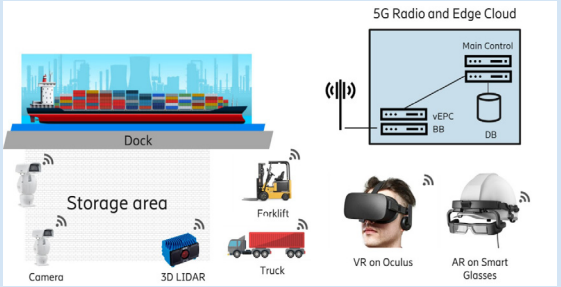


Communication Technologies

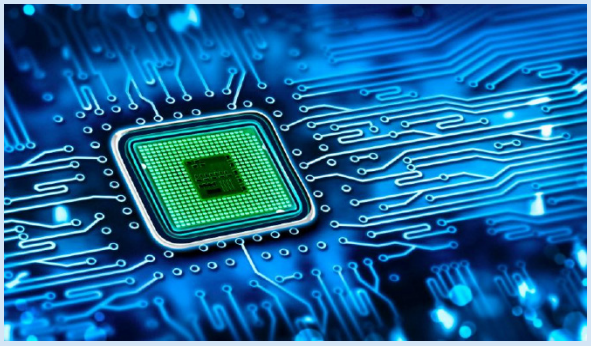
- Adhoc and Wireless Sensor Networks
- Legacy 3G/4G cellular Networks
- 5G Networks
- IPv6, 6LoWPAN, Bluetooth (Low Power), Zigbee
- Highband, Narrowband Networks
- Network Coding
- D2D and M2M Communications
- Software Defined Networks
- Massive IoT Networks
- Delay Tolerant Networks
- Interoperability of Heterogeneous Wireless Networks of Different Standards
- Network Architectures and Protocols
- RFID Networks and Protocols
- Wireless Intelligent Networks
- Satellite based Telemedicine
- Human Body Communication (HBC)
- Co-existence issues for IoT health devices
- Antennas for wearable & implantable sensors
- Interoperability

Analytics, Contextual Algorithms & Applications

- Platforms and Framework
- Cyber-physical systems
- Big data and IoT Data Analytics
- Semantic Technologies, Collective Intelligence
- Horizontal application development for IoT
- Service Experiences and Analysis
- Green IoT: Sustainable Design and Technologies
- IoT Experimental Results and Deployment Scenarios
- Security and Privacy for Internet of Things
- Identification and authentication issues

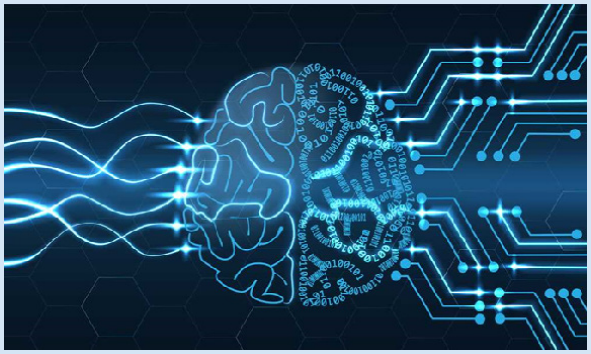


- Intrusion and Attacks in IoT
- Cryptography, key management and authorization for IoT
- UAV based Medical systems
- FPGA based digital twins
- Rural remote healthcare systems
- Assistive systems for elderly people
- Energy efficiency for wearables and implanted devices
- Patient tracking and localization
- Remote patient monitoring



Intelligence

- Deep Learning
- Neural Networks
- Machine Learning for Signal Processing
- Fuzzy Logic
- Expert Systems
- Computational Intelligence
- Natural Language Processing
- Data Mining
- Support Vector Machines
- Biometrics
- Sentiment Analysis
- Machine Vision
- Human Computer Interaction
- Pattern Recognition
- Image/Video Processing
- Intrusion Detection
- Geographic Information Systems
- Medical and Sensor Data Stream Processing
- Signal Processing
- Medical Diagnosis
- Segmentation Techniques
- Augmented Reality
- Virtual Reality
- Virtual Health Assistants
- Telehealth and Virtual Care
- Ambient Intelligence
- Agents and Multi-Agent Systems
- Context-aware pervasive systems



Miscellaneous

- Solar Cells
- Thin film Transistors
- Terahertz Detectors
- Material Synthesis
- High Power Microwave devices
- High End Laser devices
- Device structure and Modelling
- Remote Patient Monitoring (RPM)
- Vaccine Cold Chain Monitoring
- Healthcare delivery drones
- eBMS (Electronic Bed Management System)

Women in Engineering

Note : Topics are not limited to the above mentioned areas.

Events

- Oral Presentation
- Invited Talks / Plenary Lectures
- Workshop
- Poster Presentation
- Product Exhibition
- Panel Discussion

Awards

- Young Scientist Award
- Oral Presentation Awards
- Poster Presentation Awards

SUBMISSION GUIDELINES

Prospective authors are invited to submit manuscripts reporting original unpublished research and recent developments in the topics related to the conference. It is required that the manuscript follows the standard IEEE camera-ready format (IEEE standard format, double column, 10-point font in A4 size paper) not exceeding six pages. Submissions shall include title, abstract, keywords, author and affiliation with email address. The paper should be uploaded through our website.

The accepted and presented papers at the Conference will be submitted to IEEE Xplore for inclusion in the IEEE Xplore digital library (subject to the approval and acceptance of the IEEE Technical Program Committee).

CONFERENCE FEE

Early Bird			
		IEEE Member	Non-IEEE Member
India	Academia	6000	7000
	Industry	6000	7000
	Listener	1000	1500
Foreign Delegates		$200	$250
Foreign Student Delegates		$250	$300
Virtual Listener		No fee	No fee

Late Bird			
		IEEE Member	Non-IEEE Member
India	Academia	7000	8000
	Industry	7000	9000
	Listener	2000	3000
Foreign Delegates		$250	$300
Foreign Student Delegates		$300	$350
Virtual Listener		No fee	No fee

Participants can register by sending the registration form along with Demand Draft in favour of "VFSTR, General Funds" payable at Guntur and it should reach on or before 1st December, 2021.

IMPORTANT DATES

*Submission Opens	20/09/2021
*Submission Deadline	30/10/2021
*Notification of Acceptance	10/11/2021
Date of Submission of Camera Ready Paper	20/11/2021
Last Date for early bird registration	30/11/2021
Last Date for late bird registration	05/12/2021

(Note : * Tentative, it may change)

Referred to Conference website for details and updates. (https://vignan.ac.in/iot_rural_health_care/index.html)

BOARDING & LODGING

The registration fee includes conference Kit and boarding during conference & lodging can be provided on payment basis based on the availability.

How to Reach Vignan's University ?

The nearest airport is Vijayawada (Gannavaram) airport (VGA). This airport has domestic flights from Bangalore, Delhi and Hyderabad-the major cities of India. The University is situated approximately 65km from the airport and it takes 90min drive by road. The next major Airport is Rajiv Gandhi international airport at Hyderabad, which has international and domestic flights from all over the world. It is approximately 330km by road. It takes about 5 hours to reach the campus by road from this airport.

Vignan's University, is located along National Highway-5 and lies between Guntur and Tenali in Andhra Pradesh. It is 13 km from Guntur and 12 km from Tenali. It is well connected by road. Bus services are available to Guntur from all major areas of India.

Vijayawada is one of the major railway junctions near the campus. The junction is around 45 km from the University campus and is well connected by bus and taxi services. It is an hour drive from railway station to the campus. Train timetables and connections can be checked at https://www.irctc.co.in. Other Railway junctions very near to the Campus are Tenali and Guntur junction. It takes 20 -30 mins to reach the campus from either junctions

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CONFERENCE TOUR

Papi Hills is a scenic gorge located on a section of the Godavari river in the East Godavari district of Andhra Pradesh, India. It is a hill range in Khammam district of Andhra Pradesh. Papi Hills are distributed among Khammam & East Godavari and West Godavari districts.

The original name for this hill range was 'Papidi Hills'. Papidi is a rough translation for partition in Telugu. Since this range looks like a well designed partition that splits river Godavari, this name was coined. There is also another idea that the range looks like a partition of a typical Indian Woman's hair line. In due course, it settled for 'Papi Hills. Papi hills are one of the most visited tourist attraction in Andhra Pradesh.

There is also a night stay facility in Kollur village which is in the mid of hills completely covered by forests. The scenary, including the waterfalls at Munivaatam, and the peaceful atmosphere at this tribal area make this area a tourist attraction. The idol of Shiva under serpent shade was installed in Munivaatam of Khammam district. The village Perantala palli is in this area.

Polavarm Project which is planned to be constructed across Godavari river on is considered to be a threat to Papi Hills. It would displace 276 villages of which many are tirbal villages situated in Papi Hills. Teak, Arjun and Rose Wood are most commercial forest timber products. Very rare medicinal plants do also exist in Papi Hills. Papi Hills has wide varieties of natural vegetation and wildlife, that spreads across the three districts of Andhra pradesh. Papi hills lies in Eastern Ghats . Papi Hills wild life sanctuary is shelter for animals including tigers, panthers, antelopes, hyenas, jackals, spotted deers and many types of birds.

Lying on the banks of the River Godavari, this mountain range Papi hills is one of the most scenic spots around in this part of the state.

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