

IEEE Hyderabad Section



**IEEE SENSORS COUNCIL HYDERABAD CHAPTER**

**PRESENTS**

# **SEASONAL SCHOOL**

**SMART AGRICULTURE SYSTEM USING IOT TECHNOLOGY**

Date

**22 - 23 MARCH, 2024**

---

Venue

**G NARAYANAMMA INSTITUTE OF TECHNOLOGY AND SCIENCE (FOR WOMEN)  
HYDERABAD**

## Seasonal School

### Smart Agriculture System using IOT Technology

On  
22nd & 23rd March 2024 @ GNITS, Hyderabad

### Program Schedule - Day - 1

Session Timings and Speakers Details			
9.00 AM to 09.45 AM	<b>Registrations</b>		
09.45 AM to 10.30 AM	<b>Inauguration</b>		
10.30 AM to 11.30 AM	<b>Session-1</b>	<b>Dr. Sanket Goel</b> BITS Pilani, Hyderabad Campus	<b>Title:</b> Miniaturized Wearable, Implantable and Self-powered Electro-fluidic devices for Multi- domain Sensing Applications
11.30 AM to 11.45 AM	<b>Tea Break</b>		
11.45 AM to 12.45 PM	<b>Session-2</b>	<b>Mr. N. Venkatesh</b> Senior Director, Silicon Labs, Hyderabad	<b>Title:</b> Field Area Networks for Smart Agriculture with Wi-SUN
12.45 PM to 01.45 PM	<b>Lunch Break</b>		
01.45 PM to 03.15 PM	<b>Session-3</b>	<b>Mr. Phani Kumar C</b> Staff Engineer, Silicon Labs, Hyderabad <b>Mr. Ravindra Patil</b> Lead Engineer, Silicon Labs, Hyderabad	<b>Title:</b> Building IoT solutions with Edge Intelligence
03.15 PM To 04.00 PM	<b>Networking with High Tea</b>		

**Seasonal School**  
**Smart Agriculture System using IOT Technology**  
**On**  
**22nd & 23rd March 2024 @ GNITS, Hyderabad**  
**Program Schedule - Day - 2**

Session Timings and Speakers Details			
10.00 AM To 10.30 AM	Showcase of Sensors Based Projects		
10.30 AM to 11.30 AM	<b>Session-4</b>	<b>Mr. Hitendra Singh</b> Founder & CEO, Segritech	<b>Title:</b> Challenges in Agritech for Hardware & AI
11.30 AM to 11.45 AM	Tea Break		
11.45 AM to 12.30 PM	<b>Session-5</b>	<b>Dr. Chithra Lekha P</b> Senior Research Scientist Virginia Tech India IIT Madras Research Park	<b>Title:</b> Sensors for Livestock Health Monitoring and Informed Decision Making: Current Trends and Future Directions
12.45 PM to 01.30 PM	Lunch Break		
01.30 PM to 02.30 PM	<b>Session-6</b>	<b>Dr. P. N. Suganthan</b> Professor Qatar University	<b>Title:</b> Differential Evolution
02.30 PM To 03.15 PM	Valedictory		
03.15 PM To 04.00 PM	Networking with High Tea		



GNITS	GNITS – D / ECE / SM/10/00
IEEE SB GNITS	IEEE Ecoshe SUMMIT Report

Date: 30-03-2024

## Report on

### IEEE Seasonal school on Smart Agriculture using IoT Technology

Following were the speakers details with topics:

<b>Dr. Sanket Goel</b> BITS Pilani, Hyderabad Campus	<b>Title:</b> Miniaturized Wearable, Implantable and Self-powered Electro-fluidic devices for Multi-domain Sensing Applications
Mr. N. Venkatesh Senior Director, Silicon Labs, Hyderabad	<b>Title:</b> Field Area Networks for Smart Agriculture with Wi-SUN
<b>Mr. Phani Kumar C</b> Staff Engineer, Silicon Labs, Hyderabad <b>Mr. Ravindra Patil</b> Lead Engineer, Silicon Labs, Hyderabad	<b>Title:</b> Building IoT solutions with Edge Intelligence
<b>Mr. Hitendra Singh</b> Founder & CEO, Segritech	<b>Title:</b> Challenges in Agritech for Hardware & AI
<b>Dr. Chithra Lekha P</b> Senior Research Scientist Virginia Tech India IIT Madras Research Park	<b>Title:</b> Sensors for Livestock Health Monitoring and Informed Decision Making: Current Trends and Future Directions
<b>Dr. P. N. Suganthan</b> Professor Qatar University	<b>Title:</b> Differential Evolution

◆ Miniaturized Wearable, Implantable and Self-powered Electro-fluidic devices for Multi-domain Sensing Applications: These breakthrough devices are revolutionizing how we gather and interpret data across various domains, from healthcare to industrial settings. Their compact size, coupled with self-powering capabilities, enables seamless integration into everyday life, promising unparalleled accuracy and efficiency in sensing applications.

◆ Field Area Networks for Smart Agriculture with Wi-SUN: Empowering agriculture with connectivity solutions designed for efficiency and sustainability. Wi-SUN technology is reshaping the landscape of farming, ensuring smarter decision-making and optimized resource management. Field Area Networks provide robust connectivity solutions tailored for the unique challenges of agricultural environments, facilitating real-time data collection and analysis for informed decision-making.

◆ Building IoT Solutions with Edge Intelligence: Unlocking the true potential of the Internet of Things (IoT) with the power of Edge Intelligence. By processing data closer to its source, Edge Intelligence minimizes latency, enhances privacy, and reduces bandwidth usage. This enables real-time insights and enhanced operational capabilities, making IoT solutions more responsive and efficient across various industries.



◆ Challenges in Agritech for Hardware & AI: Navigating the intersection of Agritech, Hardware, and AI presents a myriad of challenges demanding innovative solutions. From optimizing hardware design to integrating AI algorithms seamlessly, addressing these challenges is crucial for unlocking the full potential of technology in agriculture.

◆ Sensors for Livestock Health Monitoring and Informed Decision Making: Current Trends and Future Directions: Evolving sensor technology is transforming livestock health monitoring, providing real-time data for informed decision-making. However, challenges persist in refining sensor accuracy and scalability for broader adoption in agricultural settings.

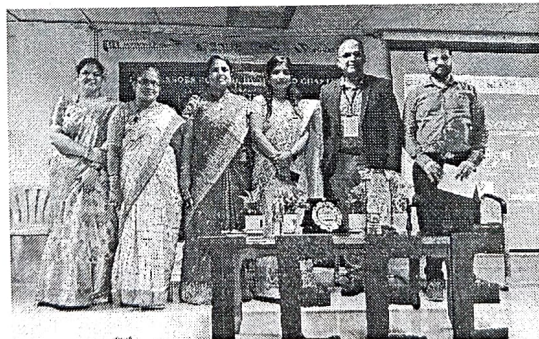
◆ Differential Evolution: This powerful optimization technique holds promise for solving complex agricultural optimization problems, such as crop yield optimization and resource allocation. Yet, challenges remain in fine-tuning algorithm parameters and adapting them effectively to diverse agricultural scenarios.

**No. of Students participated:**

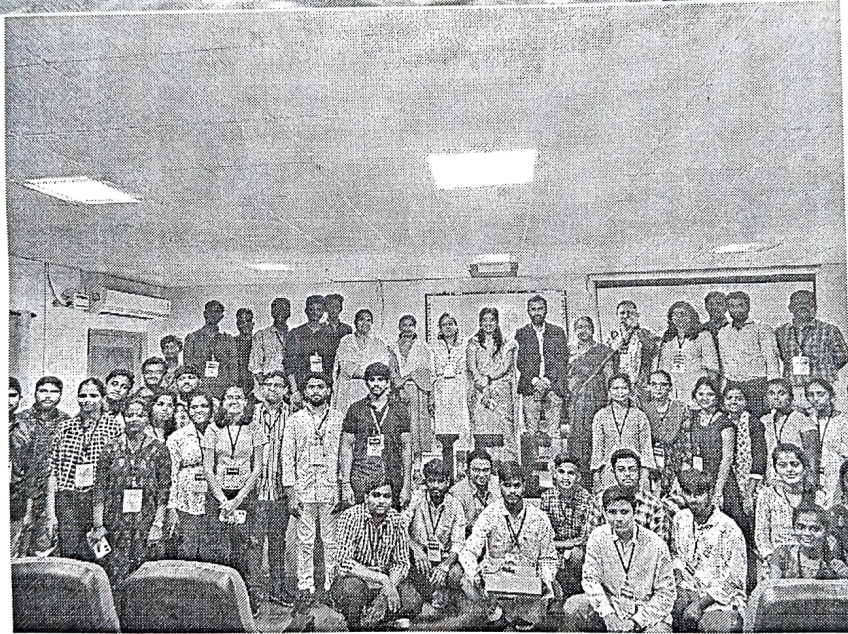
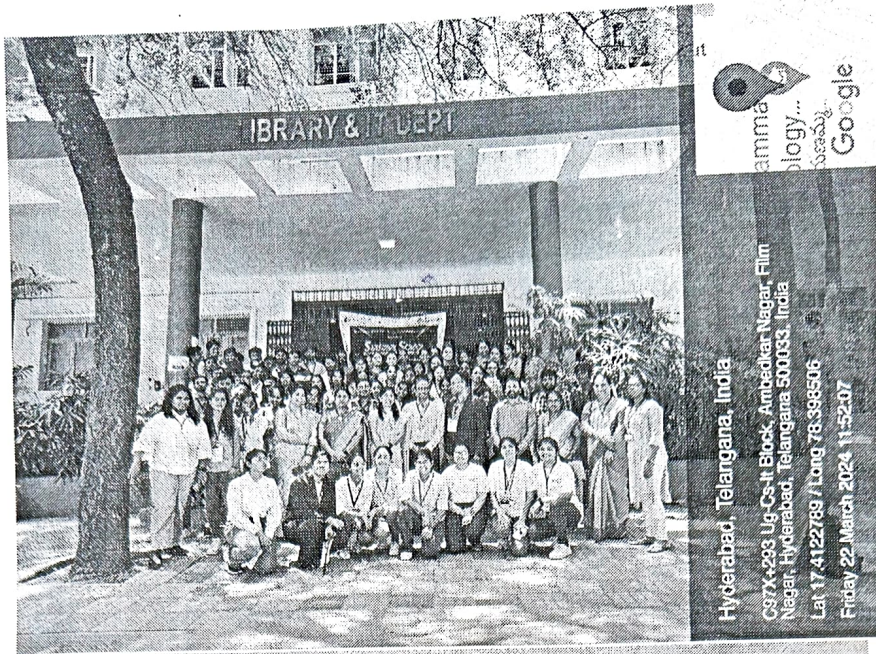
IEEE & Non IEEE : 110

**Brochure, Speakers list is enclosed:**

**Event photos:**







Dr C Padmaja  
 IEEE Sensor council advisor

Dr T. Hima Bindu  
 IEEE SB GNITS Counsellor

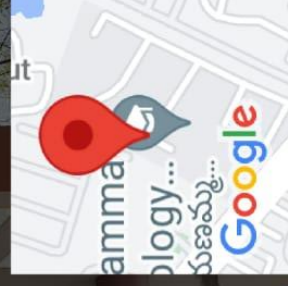
Dr Renuka Devi S M  
 IEEE Coordinator & W/E faculty advisor

Dr N. Malla Reddy  
 IEEE Mentor

Dr K. Ramesh Reddy  
 Principal







Hyderabad, Telangana, India  
C97X+293 Ug-Cs-It Block, Ambedkar Nagar, Film Nagar, Hyderabad, Telangana 500033, India  
Lat 17.4122789 / Long 78.3985506  
Friday 22 March 2024 11:52:07