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PhD from National Yang Ming Chiao
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Dr. Grande Naga Jyothi

Assistant Professor in Dept. of ECE,
Madanapalle Institute of
Technology & Science, Madanapalle

SCOPE

The Workshop begins with an introduction to emerging technologies, providing a foundational understanding of the evolving landscape. Participants then delve into novel semiconductor devices tailored from IoT to RF applications, gaining insights into their potential and applications. The focus shifts to negative capacitance technology, highlighting its role in energy-efficient devices and its impact on advancing energy-saving solutions. Next, participants explore semiconductor device technologies designed for both low and high-performance applications, gaining valuable insights into design considerations for various performance requirements. The workshop series also covers accelerating 5G data traffic performance using programmable hardware, offering practical techniques for optimizing 5G networks. Finally, participants learn about the hardware architecture required for machine learning, gaining a deeper understanding of designing efficient hardware for machine learning operations.

Registration

MITS Students/ Faculty – **No Registration Fee**

Other Institution:

IEEE Communication Society – **No Registration Fee**

Students/Faculty (**IEEE Member**) – **Rs. 50/-**

Students/Faculty (**Non-IEEE Members**) – **Rs. 100/-**

Note: Online registration is mandatory

Registration link:

<https://forms.gle/hW1m5cUdSr2amzWu9>

A/C Details

Name of the Account : MITS I.E.E.E.

A/C No : 75690100010575

IFSC Code : BARB0VJMADA

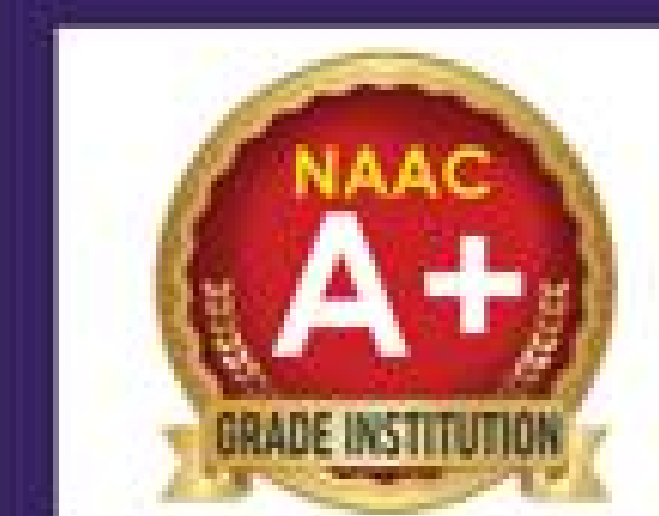
Account type : Current Account

Bank : Bank of Baroda, Madanapalle



MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE

(UGC-AUTONOMOUS INSTITUTION)



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Organised By

**Department of Electronics and Communication
Engineering**

**IEEE Communication Society, Hyderabad Section
Sponsored**

Three-days International Workshop on

**"Advances in Electron Device Technology
for IoT and Communication"**

22 – 24 April 2024

(Hybrid Mode)

About MITS



Madanapalle Institute of Technology & Science is established in 1998 in the picturesque and pleasant environs of Madanapalle and is ideally located on a sprawling 26.17-acre campus on Madanapalle Anantapur Highway (NH-205) near Angallu, about 10km away from Madanapalle.

MITS, originated under the auspices of Ratakonda Ranga Reddy Educational Academy under the proactive leadership of Late Sri. N. Krishna Kumar M.S. (U.S.A), the then President and Dr.N.Vijaya Bhaskar Choudary, Ph.D., Secretary & Correspondent of the Academy.

MITS is governed by a progressive management that never rests on laurels and has been striving conscientiously to develop it as one of the best centres of Academic Excellence in India. The Institution's profile is firmly based on strategies and action plans that match changing demands of the nation and the student's fraternity. MITS enjoys constant support and patronage Of NRI'S with distinguished academic traditions and vast experience in Engineering & Technology.

About Department

The Department of Electronics & Communication Engineering started functioning from the academic year 1998 for B. Tech course. The department has distinguished faculty, most of them holding Ph.D. degrees from eminent universities. The Department obtained UGC-Autonomous Status in the year 2014 and is running the program successfully meeting all the requirements. The B.Tech Program under Department of Electronics & Communication Engineering was accredited by the NBA & NAAC of All India Council for Technical Education (AICTE). The mission of the Department is to enable the students to innovate and excel as eminent academicians, technocrats and entrepreneurs.

Workshop Highlights

- 1. Introduction to Devices and Technologies for Emerging Applications:** This workshop introduces participants to the latest devices and technologies for emerging applications, offering insights into the evolving technological landscape.
- 2. Novel Semiconductor Device Options for IoT to RF Applications:** Participants will explore innovative semiconductor devices tailored for IoT to RF applications, gaining a deeper understanding of these technologies' potential.
- 3. Negative Capacitance Technology for Energy-Efficient Applications:** Focusing on negative capacitance technology, this workshop explores its applications in energy-efficient devices, highlighting its role in advancing energy-saving solutions.
- 4. Semiconductor Device Technology for Low and High-Performance Applications:** Covering semiconductor device technologies for both low and high-performance applications, this workshop provides insights into designing for different performance requirements.
- 5. Accelerating 5G Data Traffic Performance Using Programmable Hardware:** This workshop demonstrates how programmable hardware can enhance 5G data traffic performance, offering practical techniques for optimizing 5G networks.
- 6. Hardware Architecture for Machine Learning:** Participants will delve into the hardware architecture needed for machine learning, gaining a foundational understanding of designing hardware for efficient machine learning operations.

Outcomes

The workshop series offers a comprehensive exploration of cutting-edge technologies and devices essential for modern applications. Participants will gain a deep understanding of the latest advancements in semiconductor devices and technologies, starting with an introduction to emerging applications. They will then explore novel semiconductor device options tailored for Internet of Things (IoT) to Radio Frequency (RF) applications, discovering their potential and practical applications.

IEEE Hyderabad Section

IEEE ComSoc™
IEEE Communications Society



Program Schedule

22/04/24

Session 1

“Introduction to Devices and Technologies for emerging Applications”
By **Dr. Narasimhulu Thoti**
(In-person)

Session 2

“Accelerating 5G Data Traffic Performance Using Programmable Hardware”
By **Dr. Muthuraman Elangovan**
(Online mode)

23/04/24

Session 1

“Novel semiconductor device options for IoT to RF applications”
By **Dr. Narasimhulu Thoti**
(In-person)

Session 2

“Negative capacitance technology for energy efficient applications”
By **Dr. Narasimhulu Thoti**
(In-person)

24/04/24

Session 1

“Semiconductor device technology for low and high-performance applications”
By **Dr. Narasimhulu Thoti**
(In-person)

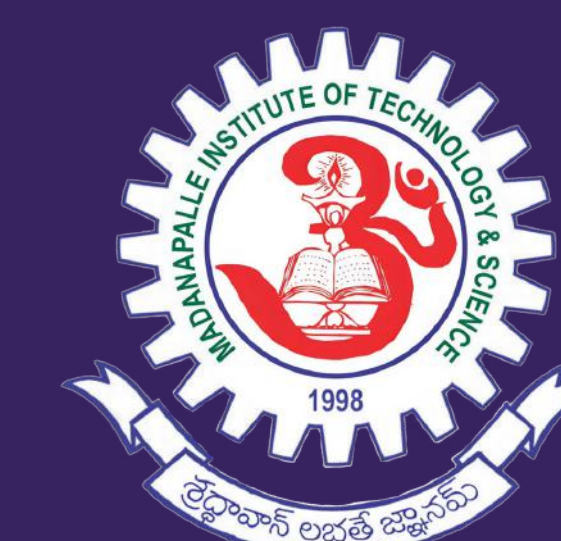
Session 2

“Hardware Architecture for Machine Learning”
By **Dr. Grande Naga Jyothi**
(In-person)

Contact Details

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