### **One Week Faculty Development Programme on** SIGNAL PROCESSING & **COMMUNICATION SYSTEMS USING MACHINE LEARNING TECHNIQUES**

6<sup>th</sup> to 10<sup>th</sup> February, 2023

### **REGISTRATION FORM**

Name:
Designation:
Department:
College:
Mobile:
Email:
Address for communication

### **DECLARATION**

The information furnished in registration form is true to the best of my knowledge. I agree to abide by the rules and regulations governing by the course. If selected, I shall attend the course for entire duration. I also undertake the responsibility to inform the coordinator sufficiently in advance, in case I am unable to attend the course.

Place: Date:

Signature of Faculty

Signature of Head of the Institution

**ONLINE Registration Link:** 

https://forms.gle/cEWzQt6N9PLTer2i6

Last date for Registration: 4th February, 2023

www.mallareddyecw.com

### **Chief Patron:**

Sri. Ch. Malla Reddy, Hon'ble Minister, Govt. of Telangana State Founder Chairman, MRGI

### Patrons:

Sri Ch. Mahender Reddy, Secretary, MRGI Dr. Ch. Bhadra Reddy, President, MRGI

#### Convener:

Dr. Y. Madhavee Latha. Professor of ECE & Principal, MRECW

#### Co-Convener:

Dr. N.Sreekanth Head (R&D), MRECW

### **Coordinators:**

Dr. K. Sudhakar

Professor & HOD, Dept. of ECE, MRECW

Cell: 99850 75324

Dr. T.S. Ghouse Basha

Professor, Dept. of ECE, MRECW

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### **Organizing Committee:**

Prof. S. BABU RAO, ECE, MRECW Dr. L. MALLIGA, Professor, ECE, MRECW Dr. N. JAGADEESAN, Professor, ECE, MRECW Dr. SMP. SAMY, Professor, ECE, MRECW Dr. S.A. MARY RAJEE, Professor, ECE, MRECW Mrs. K. SUMALATHA, Asst. Professor, ECE, MRECW

Registration Fee: Rs. 500/- per Participant

# FREE REGISTRATION

for participants from Malla Reddy Group of Institutions & Sister concern Institutions (CMR, MLR, St. Martins)

One Week **Faculty Development Programme on** 

### **SIGNAL PROCESSING & COMMUNICATION SYSTEMS USING MACHINE LEARNING TECHNIQUES**

6th to 10th February, 2023



Organized by **DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING** 



## **MALLA REDDY ENGINEERING COLLEGE FOR WOMEN**

**Autonomous Institution** 

Accredited By NBA & NAAC With 'A' Grade

NIRF Indian Ranking, MHRD, Govt. of India Band-Excellent, National Ranking by ARIIA-2021 Maisammaguda, Dhulapally, Secunderabad-500 100













www.mallareddyecw.com



### **ABOUT MRGI**

Situated away from raucous sounds of Hyderabad city, MRGI epitomizes technocracy at its best. Being one of the largest campuses in Telangana State, MRGI promises eventful student oriented learning. The founder chairman Sri.Ch.MallaReddy began the journey as an educationalist to form the bridge between society, industry and academics. He is an unassuming dynamic leader with a keen interest in changing trends of higher education and student's employability in India & abroad. The diverse and enormous growth of the group unravels his realistic vision to cater to the needs of students in all the areas of education. Education at MRGI brings all round and holistic development in students. Today MRGI has become a major learning centre with 35 institutions offering Engineering, Medical, Management, MCA and Pharmacy courses.

### **ABOUT MRECW**

The college has UGC Autonomous Status by Govt. of India, Accredited by NAAC with 'A' grade, Programmes Accredited by NBA, ISO 9001:2015 certified, 2(f) & 12(B) Recognized by UGC, Ranked by NIRF Indian Ranking-2020 in the rank band of 201-250 & 2018 in the rank band of 150-200, accepted by MHRD, Govt. of India, Band Excellent- National Ranking by ARIIA, MHRD, Govt. of India, AAAA+ Rated in Top Engineering Colleges Survey 2021 by Digital Learning Magazine, AAAA Rated by Careers 360 Magazine, Ranked as top Engineering College of Eminence in India by CSR, 86 National Ranking by the Week Magazine 51st National Ranking and 6th Telangana State Ranking by Times News Magazine, 132 National Ranking by India Today, Platinum Rated by AICTE-CII Industry Linked Institutes Survey, Top 10 Women Colleges in India-2022 by Women Entrepreneur India Magazine, recipient of Best College of the Year-2019" from Education Matters, College of the Year-2017 Award" from Silicon India Education, Best Engineering College in Telangana & A.P. Award" from International Education Awards, Time Cyber Media Pvt. Ltd., Education Leadership Award" from Dewang Mehta National Education Awards & Engineering Educators Award" from University of Bradford, U.K. Received Sixteen (16) University Academic Gold Medals from JNTU, Hyderabad for student academic excellence..

### ABOUT ECE DEPARTMENT

The Department of Electronics and Communication Engineering is accredited by NBA, with an intake of 240 in B.Tech Programme and also offers M.Tech Programme in Embedded Systems. The department has state of the art laboratories with latest softwares like MENTOR GRAPHICS, CADENCE, MATLAB, XILINX, CCSTUDIO, KEIL, RTOS, RT Linux, OSCAD, PSPICE and MULTISIM. The department consists of well equipped Robotics- Centre of Excellence to train the students in specific modules to design and develop innovative projects that extend the state of the art in Robotics. It has well qualified and experienced faculty members. The highly competent and professional faculties, many of them drawn from premise institutions and industry have extensive experience and contribute to the holistic development of academics, research and career building of students.

32 faculty members attained patent rights. The department faculty published 82 papers in SCI/Scopus indexed journals, 156 papers in UGC indexed/International journals and presented 226 papers in various national & international conferences and published 28 textbooks with ISBN. The department established IEEE, IETE & ISTE student chapters under which it organizes Technical Symposiums and various co-curricular activities every Academic Year. The department organized National Conference on Signal Processing Communications and System Design (SPCOMSD) in 2014 and is organizing International Conference on Signal Processing Communications and System Design (ICSPCOMSD) every year, from past 7 years and received AICTE sanctioned MODROB's on "Advanced VLSI Lab", "Advanced Microwave Engineering Lab" and "Advanced Communication Systems"

The department also publishes the Registered Journal "International Journal of Research in Signal Processing, Computing and Communication-System Design (IJRSCSD)" with an ISSN: 2395-3187.

### **ABOUT FDP**

The research and development in Machine learning has gained significant attention due to its widespread applications in various domains including designing of different communication systems, Embedded systems, Satellite Communication systems, health care systems and Signal & Image processing techniques. This FDP will give an opportunity to gain exposure in recent advances in Image Processing, Communications and Machine learning techniques which are used in designing various intelligent driven systems. The focus will be on imparting basic knowledge integrated with their implementation on varieties of real life applications enabling the attendees to recognize the latest cutting edge tools and techniques.

### Topics to be covered

- Introduction to ML and its applications.
- Python for Advanced Communication systems with Hands-on demonstrations.
- Machine Learning based Speech Processing & Hands-on Case Studies
- Use of machine learning in communication systems
- 5G optimization through Reinforcement Learning
- Design & simulation of non-orthogonal multiple access (NOMA)based systems
- Machine Learning based Image and Video Processing & Hands- on Case Studies
- Use of machine learning in Wireless Sensor Networks
- Deep Learning based OFDM, FBMC and UFMC Modulation Techniques in 5G Wireless Networks.

### **Expected Outcomes**

- Knowledge Enhancements.
- Hands on practices on machine learning algorithms.
- Finding research problems
- Communication with experts

### **Level of Participants**

Faculty working in AICTE approved Institutes, Ph.D. scholars, and working professionals from various organizations/industries can attend.

### **Resource Persons**

Subject experts from reputed institutions viz. IIT/NIT/IIITs. Hands-on-sessions with industry experts.

