Important Dates:

Last date for Registration : 30th August, 2020 : 30th August, 2020 **Notification of Selection**

Venue: After registration, selected participants will get online session details through registered email.



Scan QR code/Registration Link:

https://forms.gle/FANsM66kLwbEfF6M6

Limited seats are available, this STTP is purely on first come, first serve basis.

E-Certificates will be provided

Methodology:

Online live hands-on sessions, Lecture, Interaction, Case studies, Group discussion, Exercises, Experience sharing

NO REGISTRATION FEE

BENEFITS TO PARTICIPANTS

This STTP on Wireless Sensor Networks is an outstanding Technology Enhancement Program and expects National-Renowned academia & industry speakers and delivers the most recent techniques, strategies and the latest updates in Wireless Sensor Network & Applications.

Chief Patron:

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

Founder Chairman, MRGI

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

Patrons:

Convener:

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

Advisory Committee:

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Coordinator:

Dr. S. SATHISH

Professor of ECE, MRECW Email: fdpmrecwece@gmail.com Cell: 9894048285

Malla Reddy Engineering College for Women in Association with



4th Floor, Delta Chambers, Behind Chennai Shopping Mall, Ameerpet, Hyderabad – 500 016, Telangana, India. Phone: +91 - 40 - 40077960 / +91 8897565645

Email: hyd@pantechmail.com











ONE WEEK SHORT TERM TRAINING PROGRAMME ON (Ref.No. 34-65/163/RIFD/STTP/Policy-1/2018-19)

RECENT TRENDS IN WIRELESS SENSOR **NETWORKS AND APPLICATIONS(NS-2)**



DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING



NATIONAL INSTITUTIONAL RANKING FRAMEWORK
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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. Malla Reddy 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.





Malla Reddy Engineering College for Women - MRECW (Autonomous Institution, UGC, Goyt, of India), established in 2008, is approved by AICTE, New Delhi and affiliated to JNT University, Hyderabad. The college has UGC Autonomous Status by Govt. of India, Accredited by NAAC with 'A' grade, Programmes Accredited by NBA, Ranked by NIRF Indian Ranking-2020 & 2018, accepted by MHRD, Govt. of India, ISO 9001:2015 certified, Permanently Affiliated to JNTUH, 2(f) & 12(B) Recognised by UGC, AAAA+ Rated in Top Engineering Colleges Survey 2019 by Digital Learning Magazine, AAA+ Rated by Careers 360 Magazine, Ranked Nationwide 95th by Outlook News Magazine, Ranked 3rd in 'Outstanding Engineering Colleges of Excellence' category by CSR, Top 100 National Ranking by Times News Magazine, 141 National Ranking by India Today Magazine, Platinum Rated by AICTE-CII Industry Linked Institutes Survey, 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. The College has established Robotics Centre of Excellence offering Training & Certification in Robotics.

The college offers B.Tech Programmes in CSE, CSE-AIGML, CSE-Data Science, CSE-Cyber Security, CSE-IOT, IT, ECE and EEE, M.Tech Programmes in Embedded Systems, Computer Science Engineering & MBA and has a strong vision of offering world class training to the promising engineers. 100% of the faculty members are ratified by JNTU Hyderabad. MRECW emphasizes on Application Oriented Teaching & Problem Based Solving. Since the establishment of the college, it is known for academic excellence. The College offers pre placement training program, e-learning, e-Training & e Assessment in collaboration with Time Institute, Training & Assessment through Code Tantra and Reference Globe, career connect and industry connect programs. During the Academic year 2019-20, 548/600 students are placed in reputed MNCs like CISCO, Accenture, HSBC, Apps Associates, Cap Gemini, IBM, NTT Data, Cognizant, Wipro, TCS, Infogain, CGI, CYIENT, Mphasis, Infosys, Amazon & Genpact, with 6 to 8 offer letters for many.

For the better prospects, the college offers training to students for Prestigious Certifications like Microsoft, CISCO, Oracle, Robotics and Robotics Process Automation Certifications through Microsoft Innovation Center, CISCO Networking Academy, Oracle Corporation, Robotics-Centre of Excellence, BOTLAB and Oxford Achievers Certification (in association with Oxford University Press, India), Business English Certification (in association with Cambridge University, London, U.K.), Pearson Certification (in association with Pearson MePro) through Center for Development of Communication Skills within the College Campus and also offers project based training programs for I. II. III & IV year students in their fields of interest. College initiates and organizes International and National Conferences in association with Scopus Indexed journals, Workshops and Refresher courses in the different Engineering disciplines to upgrade the knowledge of the faculty members. Teams of faculty members have filed 13 patents, received several awards, published more than 50 books, more than 500 SCV Scopus Indexed pulications and huge number of publications and presentations in reputed International/National journals and conferences.

The faculty of the institution have completed and are also undertaking many more Research and funding projects. MRECW is always in the forefront in organizing workshops on latest technologies like Robotics, IOT, Block Chain Technology, R-Programming, Cloud Computing, Python, Android, Cadence Tools, MATLAB and Multisim to fill the gap between the Industry and Academia. The college has established Institution Innovation Council under MHRD and is member of J-Hub under JNT UH. Through these, in association with Entrepreneurship Development Cell, the College organizes and promotes Hackathon programmes for which our students have been selected as Top innovators and their products selected as Top Innovative products. The College also has an actively functioning Technology Business Incubation Centre for handholding startups till success. The College also organizes Personality Development Programmes in association with Vivekananda Institute of Human Excellence, Rama Krishna Math, Hyderabad. Students established IEEE, IETE, ISTE Student chapters and Technical Associations in each department under which they organize National and State Level Technical Symposia, Technical Quiz, Debate Competition, Group Discussion and Mock interviews etc. to improve their technical skills and soft skills. MRECW also organizes standard Events like Women's Day, Engineer's Day, Teacher's Day, Annual Day, Graduation Day, etc. Here is the place where we mould students into industry ready engineers by providing leadership development, mentoring in technical education and empowering our young women to be the architects of change in the world of technology. We also strive to inculcate human values, ethics, and respect for tradition along with lot of emphasis on decency, dignity and life skills to meet the challenges of the world.

Importance and Scope of the Course:

Over the past few years, the world has witnessed potential applications of Wireless Sensor Networks (WSNs) in many areas including environment monitoring, surveillance systems, military, health care, disaster warning systems and home applications. Extensive research works have been carried out to enrich this field. The primary objective of this course is to impart knowledge and skills on various issues of WSNs through lecture presentation and hands on practical sessions. A great emphasis will be laid on the recent research topics on WSNs.

Schedule

Day-1: 31st August, 2020

Introduction about Networks.

NS2 Architecture Network topologies

Tool Command Language (TCL)

Day-2: 1st September, 2020

Variables, Operators and Loops (Hands On) Arrays, Procedure and File Handling (Hands On)

Day-3: 2nd September, 2020

Node creation, Node ID, Position, Size, Shape and Color of node

Creating Communication Links between nodes

Introduction to TCP and UDP protocols

Writing a TCL Script to create two nodes and links between nodes (Hands on)

Day-4: 3rd September, 2020

Agents Creation at Transmitting and Receiving nodes & **Applications**

Introduction to Trace file formats (old & new) and NAM Window Writing a TCL Script to transmit data between nodes

Day-5: 4th September, 2020

Introduction about Wireless Communication parameters

Evaluate the performance of various LAN Topologies

Evaluate the performance of Drop Tail and RED gueue management

Evaluate the performance of CBQ and FQ Scheduling Mechanisms Routing Protocols (AODV,DSR,DSDV)

Day-6: 5th September, 2020

Evaluate the performance of AODV and DSR routing protocols **Evaluate the performance of AODV and DSDV routing protocols** Introduction to AWK files

Calculations of Throughput, delay and Packet Delivery Ratio Evaluate the performance of IEEE 802.11 and IEEE 802.15.4



Timings:

The STTP course content will be delivered from a pool of

resource persons on the subject from prestigious leading

industries. Hands-on sessions are suitably designed to

supplement online discussions using suitable software.

Resource Persons

FN: 10:00 am to 12:00 Noon AN: 2:00 pm to 4:00 pm

Computer Science & Engineering, Electronics & Communication Engineering. Electrical Engineering and other related areas who are in continuous service.

Participants:

College/University teachers in