

# NO REGISTRATION FEE

## Important Dates:

Last date for Registration: **9<sup>th</sup> August, 2020**

Notification of Selection : **9<sup>th</sup> August, 2020**



Scan QR code/Registration Link:  
<https://forms.gle/JKw2pqy82TUmj6sF8>

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

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

## E-Certificates will be provided

### BENEFITS TO PARTICIPANTS

This STTP on Predictive analytics using Machine Learning with Python 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 Machine Learning Technology fields. Participants will also study commonly used machine learning techniques and learn how to combine models to obtain optimal results. Participants can acquire the knowledge of Machine Learning through hands-on experience, benefit with an outstanding exposure to the technology incorporated in Machine Learning Technology and a stimulating opportunity to showcase the new technology.

### LEVEL OF PARTICIPANTS

Faculty working in AICTE approved Institutes and having a zeal to do rigorous research in the field of "Machine Learning with Python", Industry persons, Researchers etc.

### RELEVANCE

Machine Learning (ML) plays a significant role in the modern engineering and information processing systems. It is a rapidly growing field. The Machine Learning is an essential part of pattern recognition, object detection and classification, clustering, data mining and speech recognition etc. This STTP assesses the various machine learning methods in the process of eliminating human interventions wherever necessary and possible. Machine learning plays an essential role in IoT aspect for handling the huge amount of data generated by those machines. Machine learning is allowing us to learn the patterns by itself and take autonomous decisions without a new set of rules and regulations. Machine learning is a powerful tool that can take the IoT technologies a step forward in mitigating the myriad problems that arise from large deployments.

### 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

### Advisory Committee:

**Dr. D. RAGHURAMI REDDY,** Dean (Academics), MRECW  
**Prof. B.V.S.P PAVAN KUMAR,** TPO, MRECW  
**Prof. S. BABU RAO,** ECE, MRECW  
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**Prof. K. SUMALATHA,** ECE, MRECW

### Coordinator:

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**MALLA REDDY ENGINEERING COLLEGE FOR WOMEN  
IN ASSOCIATION WITH**

**ThinkIoT Solutions**  
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Contact: 8686706078



# DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING



**ONE WEEK  
SHORT TERM TRAINING PROGRAMME ON**  
(Ref.No. 34-65/162/RIFD/STTP/Policy-1/2018-19)  
[ Sponsored by AICTE ]

## PREDICTIVE ANALYTICS USING MACHINE LEARNING WITH PYTHON

**10<sup>th</sup> to 16<sup>th</sup> August, 2020**



## MALLA REDDY ENGINEERING COLLEGE FOR WOMEN

**Autonomous Institution, UGC, Govt. of India**  
Accredited by NBA & NAAC with 'A' Grade  
NIRF Indian Ranking, Accepted by MHRD Govt. of India  
Approved by AICTE, Affiliated to JNTUH, Hyderabad  
Maisammaguda, Dhulapally, Secunderabad-500100



**EAMCET/ICET CODE MRCW**



[www.mallareddyecw.com](http://www.mallareddyecw.com)

## MRGI AT A GLANCE

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

Malla Reddy Engineering College for Women – MRECW (Autonomous Institution, UGC, Govt. 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(A) & 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 95<sup>th</sup> by Outlook News Magazine, Ranked 6<sup>th</sup> 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 MNC's 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 SCI/Scopus Indexed publications 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 JNTUH. 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.

## ABOUT STTP

This STTP will give you an overview of Machine Learning-based approaches for predictive modelling, developing a Regression Model using WSN and Deep Learning based Air Quality Management System, building a Decision Tree Classifier Model using Python. Machine learning is about designing programs that can develop machine learning codes using python. This STTP introduces you to the amazing world of Machine Learning and its fascinating applications.

Carry out predictions – how to predict, how to analyses predicted values, discuss the importance of variables in a dataset. Apart from gaining practical skills on the Internet of Things, ML is used to demonstrate how all the steps of a machine learning pipeline come together to solve a problem. This training familiarizes the delegates with current technologies and the recent algorithms.

Pickle and Serialization

## SCHEDULE

**Day 1: 10<sup>th</sup> August, 2020**

Introduction to Machine Learning & Types  
Data Visualization

**Day 2: 11<sup>th</sup> August, 2020**

Regression Analysis  
Developing a Regression Model using WSN and Deep Learning based Air Quality Management System

**Day-3: 12<sup>th</sup> August, 2020**

Classification Analysis  
Building a Decision Tree Classifier Model  
Metrics for Model Evaluation

**Day-4: 13<sup>th</sup> August, 2020**

Time Series Modeling  
Developing a Prediction Model for Indoor User Movement

**Day-5: 14<sup>th</sup> August, 2020**

Clustering Analysis

**Day-6: 16<sup>th</sup> August, 2020**

E-Quiz, Valedictory,  
Certificate Distribution.

## EXPECTED OUTCOMES

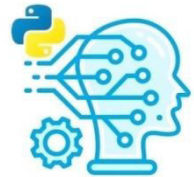
**After completion of one-week STTP the participant will be able to**

- Build a logistic regression model with meaningful variables. You will also learn how to use this model to make predictions and how to present it and its performance.
- Specify performance evaluation metrics for characterizing a generic machine learning technology based on various analytical simulation methods.

## RESOURCE PERSONS

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 discussions using suitable software.

MALLA REDDY ENGINEERING  
COLLEGE FOR WOMEN  
IN ASSOCIATION WITH



Python +  
Machine Learning

