

MANAV RACHNA UNIVERSITY

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Report on Five Day STC On “Machine Health Monitoring And Evaluation using IoT”

by IQAC, MRU in collaboration with NITTTR, Chandigarh

Resource Person: Prof. Lini Mathew, NITTTR, Chandigarh and their team.

Faculty Coordinator: Dr. Charu Pathak, IQAC co-coordinator, Dept of ECE, MRU

Chief Guest: Prof. Sangeeta Banga, Dean Students, MRU and Prof. B. M. Bahal, Dean Research, MRU

Participants: Faculties from all Engineering and Applied Sciences Departments from Manav Rachna University.

IT Support: Mr. Rakesh

Date, Time and Venue: 25th March to 29th March, 2019, 9:00am to 4:30 pm, Audio Visual Room, Swami Vivekananda Library, L Block, MRU

Internal Quality Assurance Cell, Manav Rachna University, Faridabad conducted a five-day training program on "Machine Health Monitoring and Evaluation using IoT" from 25th March 2019 to 29th March 2019 in collaboration with National Institute of Technical Teachers Training and Research (NITTTR) Chandigarh. The program was conducted through Information and Communication Technology (ICT) mode, which provided the participants with the opportunity to attend the training from their respective locations.

Objectives:

The main objectives of the training program were to:

1. Provide an overview of the Internet of Things (IoT) and its applications in machine health monitoring and evaluation.
2. Introduce the participants to various sensors and their applications in IoT-based machine health monitoring.
3. Explain the different data acquisition techniques and their implementation in IoT-based machine health monitoring.
4. Provide hands-on experience to the participants on developing IoT-based machine health monitoring systems.
5. Discuss the challenges and future directions of IoT-based machine health monitoring.

Participants:

Charu Pathak



The training program was attended by 21 participants from various academic departments of the University. The participants were from different parts of the country, and the majority of them were from academic institutions.

Training Methodology:

The training program was conducted through ICT mode using the A-VIEW platform. The program was conducted by a team of expert trainers from NITTTR Chandigarh. The training was delivered through interactive lectures, demonstrations, and hands-on sessions. The participants were provided with necessary software and hardware to develop IoT-based machine health monitoring systems.



Faculties attending Training Program

Training Content:

The training program covered the following topics:

1. Introduction to IoT and its applications in machine health monitoring.
2. Sensors and their applications in machine health monitoring.
3. Data acquisition techniques in IoT-based machine health monitoring.
4. Hands-on experience in developing IoT-based machine health monitoring systems.
5. Challenges and future directions in IoT-based machine health monitoring.

Outcome:

The training program was successful in achieving its objectives. The participants gained knowledge and hands-on experience in developing IoT-based machine health monitoring systems. The participants appreciated the training methodology and the expertise of the trainers. The participants also expressed their interest in attending more such training programs in the future.

Chetan Parsh



Conclusion:

The training program on "Machine Health Monitoring and Evaluation using IoT" conducted by NITTTR Chandigarh at Manav Rachna University, Faridabad from 25-03-2019 to 29-03-2019 through ICT mode was a success. The program provided an overview of IoT and its applications in machine health monitoring and provided hands-on experience to the participants in developing IoT-based machine health monitoring systems. The participants appreciated the training methodology and expressed their interest in attending more such training programs.

Glimpses of the Event:

Faculties Participation in the Training

Chou Paras



MANAV RACHNA UNIVERSITY

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

REPORT ON ONE WEEK MULTIDISCIPLINARY STC

ON

“OPTIMIZATION TECHNIQUES USING MATLAB”

in collaboration with IQAC, MRU and NITTTR, CHANDIGARH

Resource Person: Prof. S. S. Dhama and Prof. B.S.Pabla, NITTTR, Chandigarh and their team.

Faculty coordinator: Dr.Charu Pathak, IQAC co coordinator, Dept of ECE, MRU

Chief Guest: Prof. Sangeeta Banga, Dean Students, MRU and Prof. B. M. Bahal, Dean Research, MRU

Participants: Faculties from all Engineering and applied sciences departments from Manav Rachna Educational Institutions **and Research scholars from YMCAUST, Faridabad, Eight other Engineering colleges or repute from all over India.**

IT support: Mr. Rakesh

Date, Time and Venue: 28th August to 1st September, 2018, 9:00am to 4:30 pm, Audio Visual Room, Swami Vivekananda Library, L Block, MRU

The Internal Quality Assurance Cell (IQAC), Manav Rachna University organized an ICT based short term course on “Optimization techniques using MATLAB” in collaboration with NITTTR, Chandigarh. The course was conducted by Prof.S.S.Dhama and his team from NITTTR Chandigarh. The STC aimed to provide practical training on optimization techniques using MATLAB software. This was a multidisciplinary course and was attended by about 19 participants.

STC Content and Structure:

The STC was divided into two parts: the theoretical and practical sessions. In the theoretical session, the instructor introduced the concept of optimization, its importance in various fields, and the types of optimization techniques. The instructor also gave a brief overview of MATLAB software, its capabilities and its optimization toolboxes.

In the practical session, the instructor demonstrated how to use MATLAB for solving optimization problems. The instructor covered various optimization techniques such as linear programming, quadratic programming, and nonlinear programming. The instructor also provided hands-on training to the participants to solve optimization problems using MATLAB software.

Charu Pathak



Outcome:

The participants gained knowledge and skills in using MATLAB software for solving optimization problems. They learned the importance of optimization techniques in various fields and the different types of optimization techniques. Participants also learned how to use MATLAB software to solve real-world optimization problems.

Conclusion:

The STC on "Optimization using MATLAB" was successful in achieving its objective of providing practical training to the participants in using MATLAB software for solving optimization problems. The participants gained valuable knowledge and skills in this area, which will help them in their future careers. It is recommended that such STCs be conducted regularly to help students stay updated with the latest techniques in optimization.

The course was appreciated by participants from all the disciplines. The course covered topics from mathematics, ANNs, MATLAB optimization tools, Applications of these techniques etc.

****Every day the course had three sessions which included very interactive lectures (on board teaching), problem solving sessions and hand-on sessions on MATLAB.**



Faculties during the Session

Chau Peal





Session in Progress

Chun Patel

