MATRUSRI ENGINEERING COLLEGE
#16-1-486,Saidabad,Hyderabad-500059
(Approved by AICTE, Affiliated to Osmania University)

REPORT ON
2023 IEEE SPS Seasonal School on
"Advanced Signal Processing using Machine Learning Techniques"
July-2023

1. Title: 2023 IEEE SPS Seasonal School on "Advanced Signal Processing using Machine Learning Techniques"

2. Program type: Seasonal School

3. Date: 10.07.2023 to 15.07.2023

4. No. of students Participated: 45

5. No. of Faculty Participated: 30

6. No. of External Participants:29

7. Objectives:

- The main objective of the Seasonal school is to provide a platform to create awareness on recent developments in Signal Processing and its applications to the latest technological developments.
- To allow the participants a wide scope of opportunities in research and career , a well curated course covering the recent advances and latest techniques, novel and innovative applications are also included in the lectures' agenda.
- Foster membership development among young researchers with interests in signal processing and its applications.

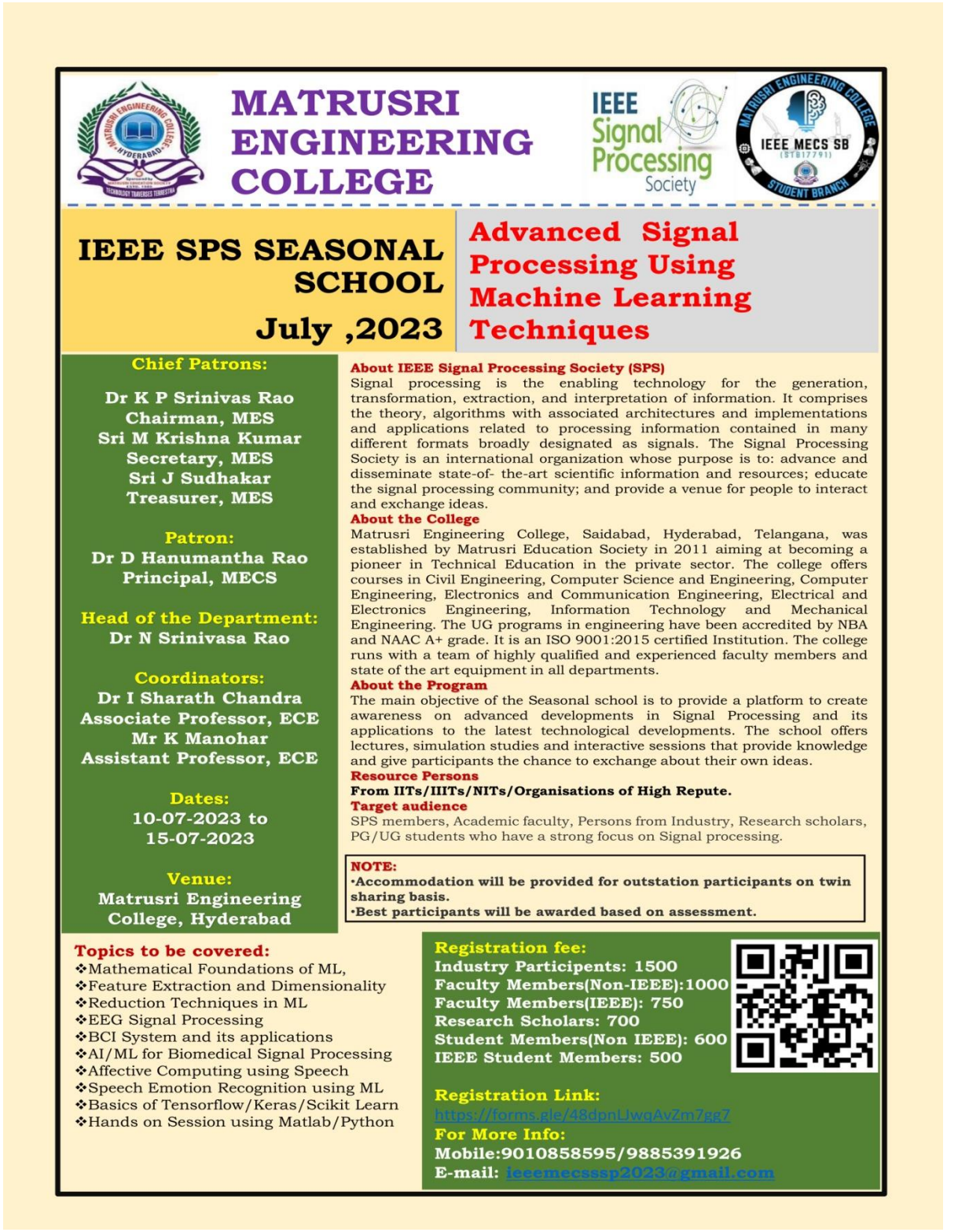
8. Benefits in terms of Learning/skill/Knowledge obtained:

Participants got the information about the various branches of signal processing using Machine Learning Techniques. They have got an opportunity to work on Python/Tensor Flow.

9. Faculty Coordinators: Dr. I. Sharath Chandra, Associate Professor, ECE, MECS

Mr.K.Manohar, Assistant Professor, ECE, MECS

10. Poster/Banner:



11. Photographs:

Chief Guest Dr.M.S.Y.Prasad,Project Director, RCI and the Guest of Honours, Dr.P.Lakshmi Narayana , Chair, IEEE SPS Hyderabad Section ,Dr.D.Rama Krishna, HoD-ECE, OU College of engineering ,Dr.D.Hanumantha Rao, Principal, MECS during the Inauguration of the program

Dr.N.Srinivas Rao, HoD-ECE and Dr.I.Sharath Chandra, Coordinator of Seasonal School felicitating the resource person, Dr.K.Anitha Sheela, Professor of ECE, JNTU Hyderabad during one of the sessions.

Resource Person, Dr.V.Anil Kumar, Professor, IIIT Hyderabad delivering the lecture

Dr.M.Sushanth Babu, Professor, ECE, Dr.I.Sharath Chandra and Mr. K.Manoahr Coordinators of the Seasonal School felicitating Prof.Barathram Ramkumar, Professor IIT Bhubaneshwar.

Participants during the Lectures

12.Consolidated Brief Report:

The IEEE MECS Student Branch (STB1) SPS chapter has organised a seasonal school Advanced Signal Processing using Machine Learning Techniques" from 10th to 15th July, 2023. The inaugural ceremony of the program held on 10-07-2023 during the Forenoon session started with welcoming the guests namely

1. The Chief Guest – Dr.M.S.Y.Prasad,Project Director, RUDRAM II, RCI, DRDO.,
2. The Guest Of Honor-Dr P Lakshmi Narayana, Chair, IEEE SPS Hyderabad Section.
3. The Guest Of Honor-Dr D Rama Krishna, HoD-ECE, University College of Engineering, Osmania University.
4. The Guest Of Honor-Dr D HanumanthaRao, Principal, MatrusriEnigneering College.
5. Dr.N.SrinivasaRao , Head, ECE,MECS.
6. IEEE MECS SPS SB Advisor, Dr I Sharath Chandra, Assoc. Professor, ECE dept. on to the dais.

The function commenced with the Lighting up of the Lamp by the Chief Guest(s) and the other dignitaries on dais with a Prayer song.

At first, MECS ECE HoD, Dr N Srinivasa Rao welcomed the particiapants and congratulated the organisers for organising the event. He also disclosed the details of activities under the department of ECE and the long term goals of the IEEE SB SPS chapter in the campus.

Dr. D. HanumanthaRao, Principal of MECS , has appreciated the students and Branch Counselor, Advisor for their initiation and systematically organizing the event.He suggested the students to effectively utilize these kind of programs organised by IEEE student branch and encouraged all the students to actively participate in all other technical events.

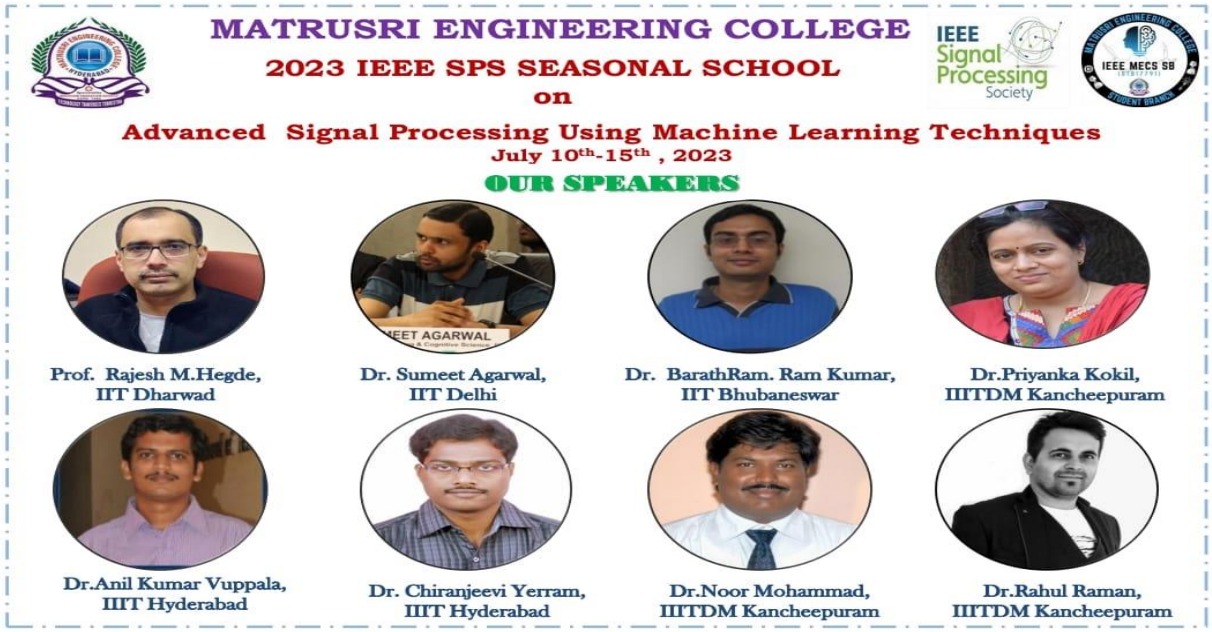
Dr. I. Sharath Chandra, IEEE MECS SPS SB Advisor emphasized about the objectives of the seasonal school and advised the participants to effectively utilise the resources during the program.

Guest of Honour,Dr.P.Lakshmi narayana, Chair, IEEE SPS Hyderabad Section, has congratulated the entire team for maintaining the punctuality in starting the session and suggested the participants to effectively use this resources.

Guest of Honour, Dr.D.Ramakrishna,HoD-ECE, UCoE in his remarks , appreciated the MEC and IEEE SPS SB chapter for organising the event and congratulated all the participants for showing interest in participating a seven day Seasonal School.

Chief Guest, Dr.M.S.Y. Prasad, Project Director, RUDRAM-II, RCI has talked about adapting the change and effectively utilizing the opportunities for updating one's knowledge. He also wished that the program will be successful and it gives a good learning experience to all the participants.

The schedule of the lectures delivered by different resource person during the program:



PROGRAM SCHEDULE

Date/Time	10:00 AM to 11:30 AM	11:45 AM to 1:15 PM	1:15 PM to 2:15 PM	2:15 PM to 3:45 PM
10-07-2023	Registration/ Inaugural Session	Advanced Signal Processing Applications Dr. Rajesh M. Hegde IIT Dharwad		ML based Classification and Regression Dr.Sumeet Agarwal IIT Delhi
11-07-2023	Biosignal processing (Recent works in PPG and PCG) Dr. Barathram Ramkumar IIT Bhuvaneshvar	Speech Emotion Recognition Dr.Anil Kumar Vuppala IIIT Hyderabad		Speech Emotion Recognition Dr.Anil Kumar Vuppala IIIT Hyderabad
12-07-2023	Feature extraction and Dimensionality reduction techniques in Machine Learning Dr.Chiranjeevi Yarra IIIT Hyderabad		**LUNCH BREAK**	ML based applications in Signal Processing Dr.Chiranjeevi Yarra IIIT Hyderabad
13-07-2023	VLSI architectures for Digital Signal Processing Dr.Noor Mohammad IIIT Kanchipuram			Computer Vision applications with ML Dr. Rahul Raman IIIT Kanchipuram
14-07-2023	Hands-on Session using Python/Matlab on Basics of Tensorflow/Keras/Scikit Learn			Hands-on Session using Python/Matlab on ML algorithms of signal processing
15-07-2023	Mini project Implementation	Assessment/Quiz		Feedback and Valedictory Session