Department of Electrical & Electronics Engineering
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A Report
on One Week National level FDP on
"Application of Data Science and Machine Learning in Engineering"

In association with Centre for Energy-SVEC
Under IEEE Student Branch and ISTE Student Chapter
(14th -18th June 2021)

The One Week National level Faculty Development Program on "**Application of Data Science and Machine Learning in Engineering**" was organized by the Department of Electrical & Electronics Engineering, Sree Vidyanikethan Engineering College in association with Centre for Energy-SVEC under IEEE Student Branch and ISTE Student Chapter from 14th-18th June 2021.

The FDP programme received an overwhelming response with 67 participants from in and around engineering colleges of the country.

The endeavour was successful in creating learning environment for the faculty members and also in providing hands-on experience in programming and modelling skills through R Tool, Python and Advanced Excel. The FDP has also provided a forum for interacting and sharing ideas among the faculty and opened the new avenues for academic collaborative activities.

The proceeding of the One week national level FDP was inaugurated by the eminent personalities on 14thJune, 2021.

1. Dr. B. M. Satish, Principal, Sree Vidyanikethan Engineering College.

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2. Dr. T. Nageswara Prasad, Vice-Principal & Professor EEE, Sree Vidyanikethan Engineering College.
3. Dr. M. S. Sujatha, Professor & HOD EEE, Sree Vidyanikethan Engineering College.
4. Dr. O. Obulesu, Associate Professor, G. Narayanamma Institute of Technology & Science, Hyderabad, Telangana
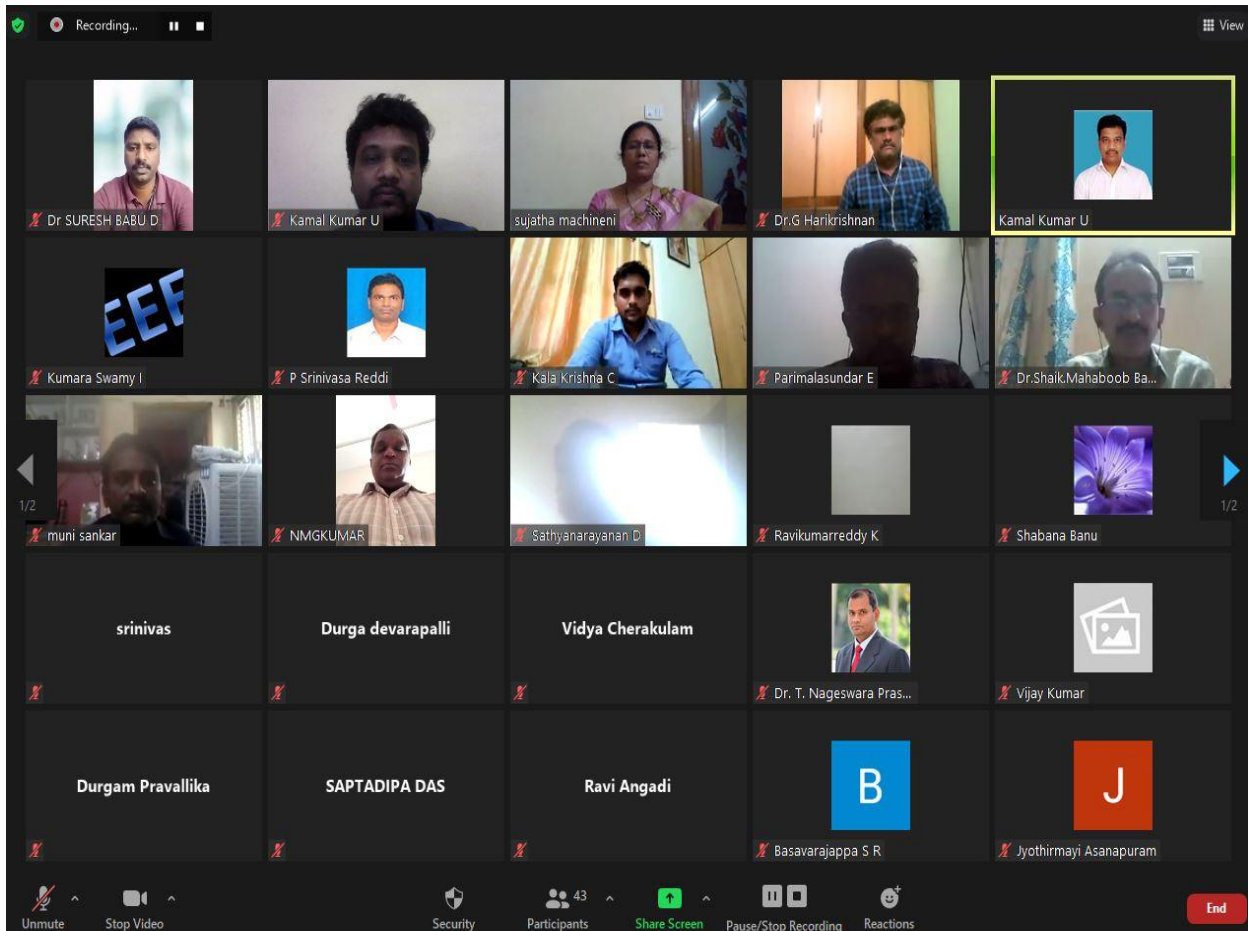5. Dr. D. Suresh Babu, Associate Professor, EEE and Convener of the Program.

Day 1: Inaugural session, 14-06-2021, 5:00 P.M to 5:30 P.M.

Mr. U. Kamal Kumar, Co-convener of the program has welcomed all the dignitaries and participants in his opening address.

Dr. M.S. Sujatha, Professor & HOD EEE, Sree Vidyanikethan Engineering College in her welcome address, brought out the importance of these kinds of FDPs organized by the EEE department.

Dr. B. M. Satish, Principal, Sree Vidyanikethan Engineering College has congratulated and appreciated the Department of EEE for organizing such a multidisciplinary program and welcomed all the enthusiastic participants.

Dr. D. Suresh Babu, Convener has welcomed the participants and brought out the importance and objectives of the FDP and requested the participants to learn more and disseminate the knowledge gained among the students and peer group as well. He has also mentioned as it is the first time the department is organizing a hands-on session in online for one week. So, he requested all the participants to make use of the hands-on sessions to get some idea for their individual research problems.

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Participants in the inaugural function of one week FDP

Day 1: Technical Session: 14-06-2021, 5:30 P.M to 8:30 P.M.

Speaker: Dr. O. Obulesu, Associate Professor, G. Narayanamma Institute of Technology & Science, Hyderabad, Telangana
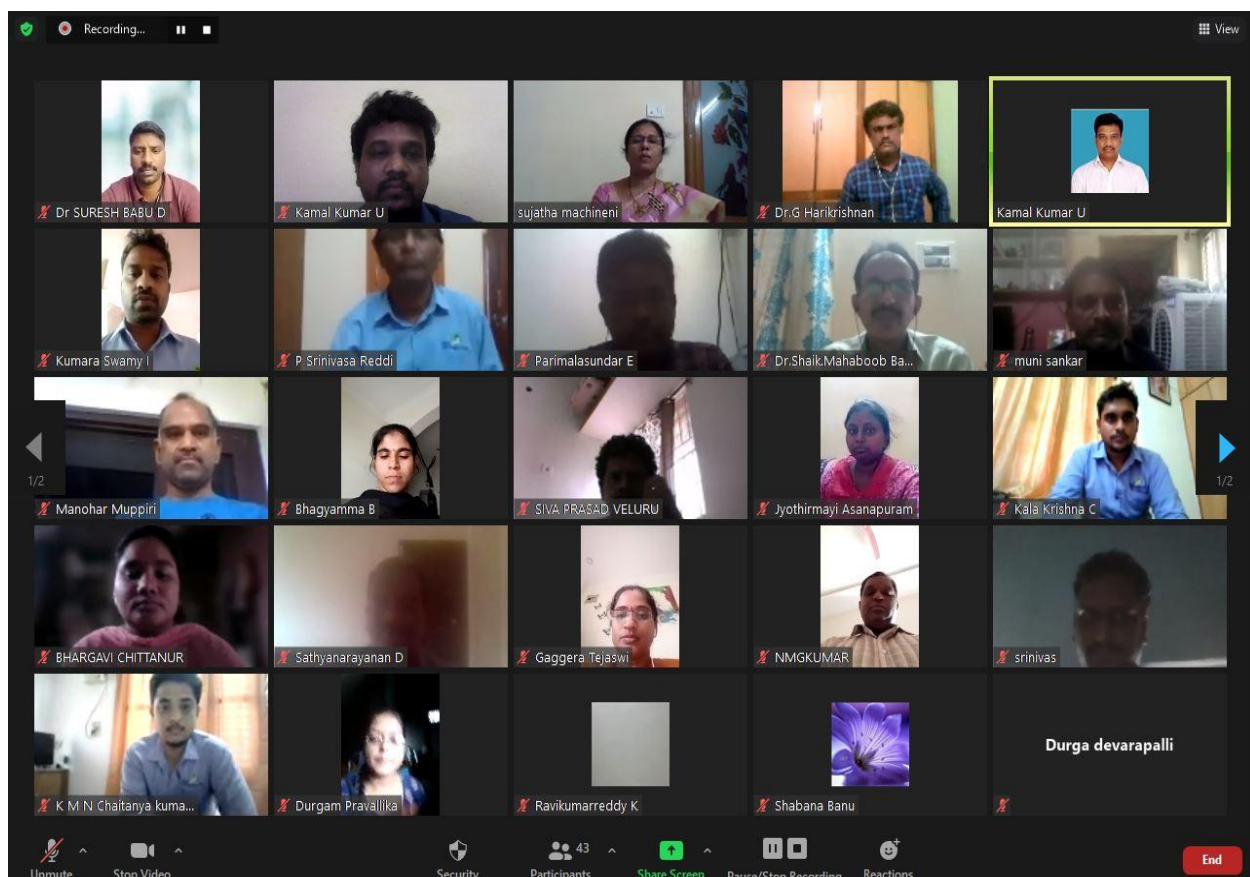
Introduction to Data Analytics

The session was started with the introduction of the data analytics and machine learning techniques. As the participants are from various backgrounds, the speaker has exhaustively explained the data science. Various types of machine learning techniques and the data analytical tools were explained.

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Day 2: Technical Session: 15-06-2021, 5:00 P.M to 8:15 P.M.

Speaker: Dr. O. Obulesu, Associate Professor, G. Narayanamma Institute of Technology & Science, Hyderabad, Telangana

Application of Data Analytics using R and Python: Concepts and Hands-on

The session was started with the introduction of the tools used for data analytics. The introduction of R tool for various applications were given. The python programming basics were also introduced and the hands-on session was carried further for different algorithms to analyze data.
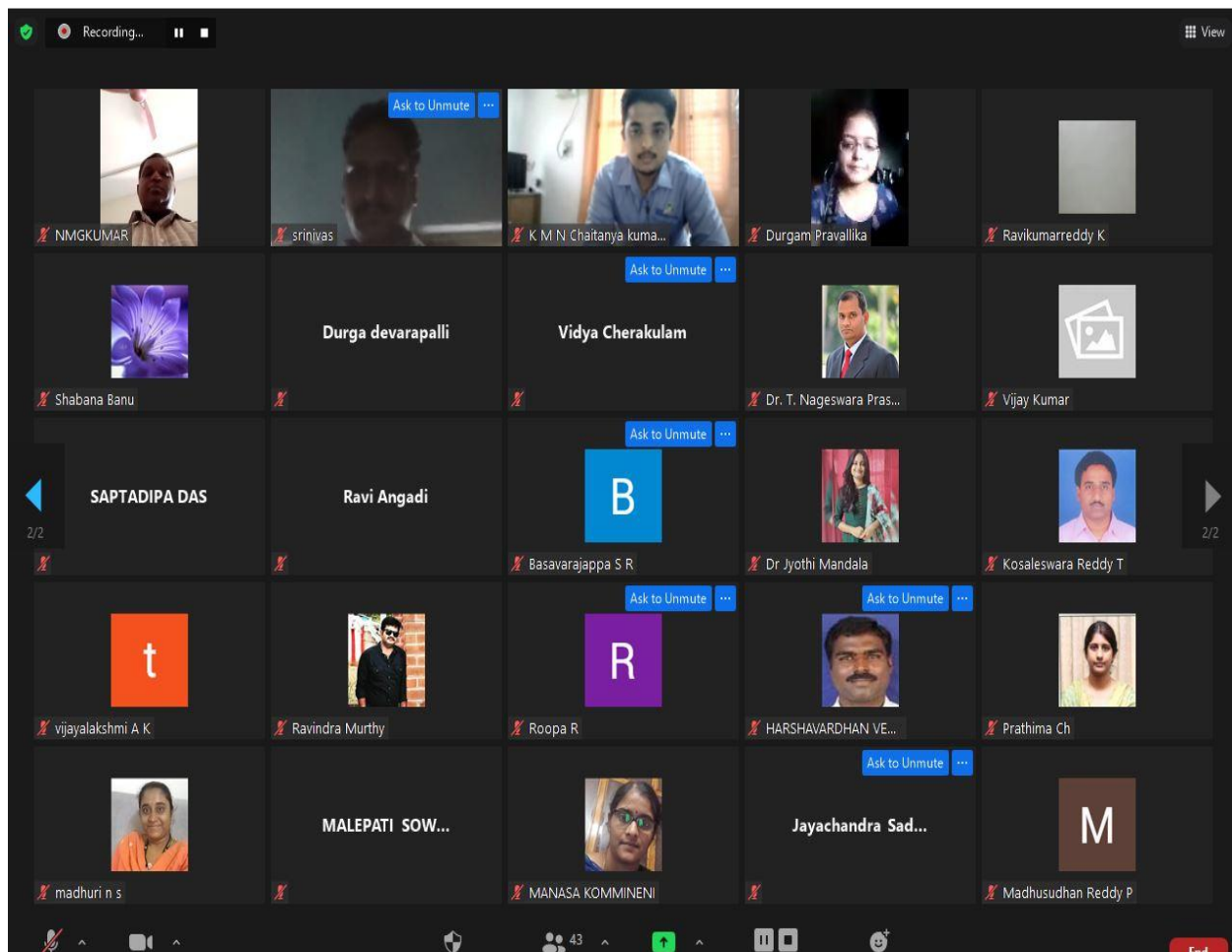

Participants in the Technical Session for Day-1 & 2

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Day 3: Technical Session: 16-06-2021, 5:00 P.M to 8:15 P.M.

Speaker: Mr. Ch. Rayala Vinod, Data Analyst/ Snowflake Consultant, Estuate Software Services Pvt. Ltd, Bangalore, Karnataka

Recent Trends in Data Warehousing for Big Data Application

The speaker has given a brief introduction about the cloud storage system for big data applications. the contents related to amazon web services for the data storage was explained clearly. He also emphasized on the latest technology for data storage, the snowflake applications.
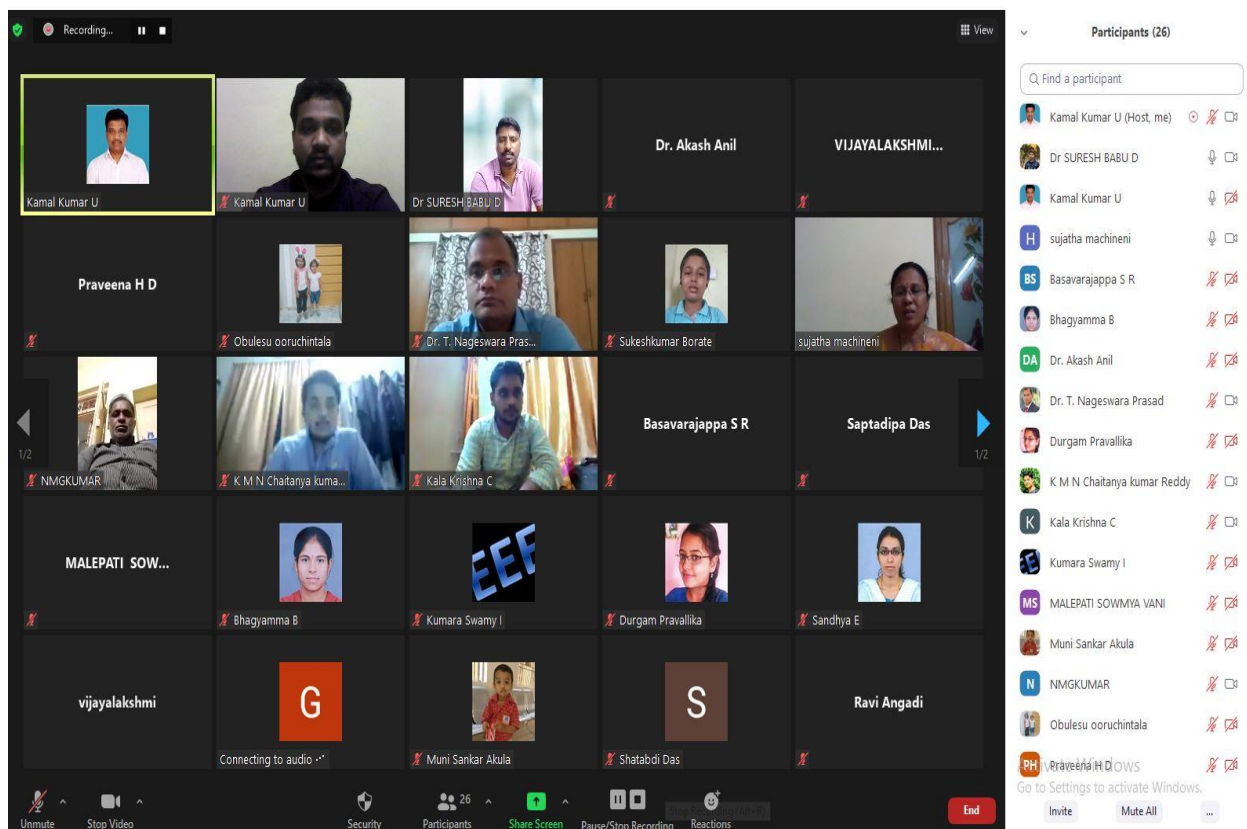

Participants in the Technical Session for Day-3

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Day 4: Technical Session: 17-06-2021, 5:00 P.M to 8:15 P.M.

Speaker: Ms. Shatabdi Das**,** Data Science Trainer, Training & Learning India, Bhopal, M.P

Uses of data Analytics in all Domain (Advanced Excel & Text Analysis in Python).

The speaker has given a brief introduction about the importance of data analysis in our daily life. she has made the participants to think about the applications in our daily routine as well as in sports, movies, study etc. Later she introduced the advanced excel to the participants which was new to many of the participants and was made clear how to utilize it. The text analysis depending on the situation of the individual conditions were also explained in python software.
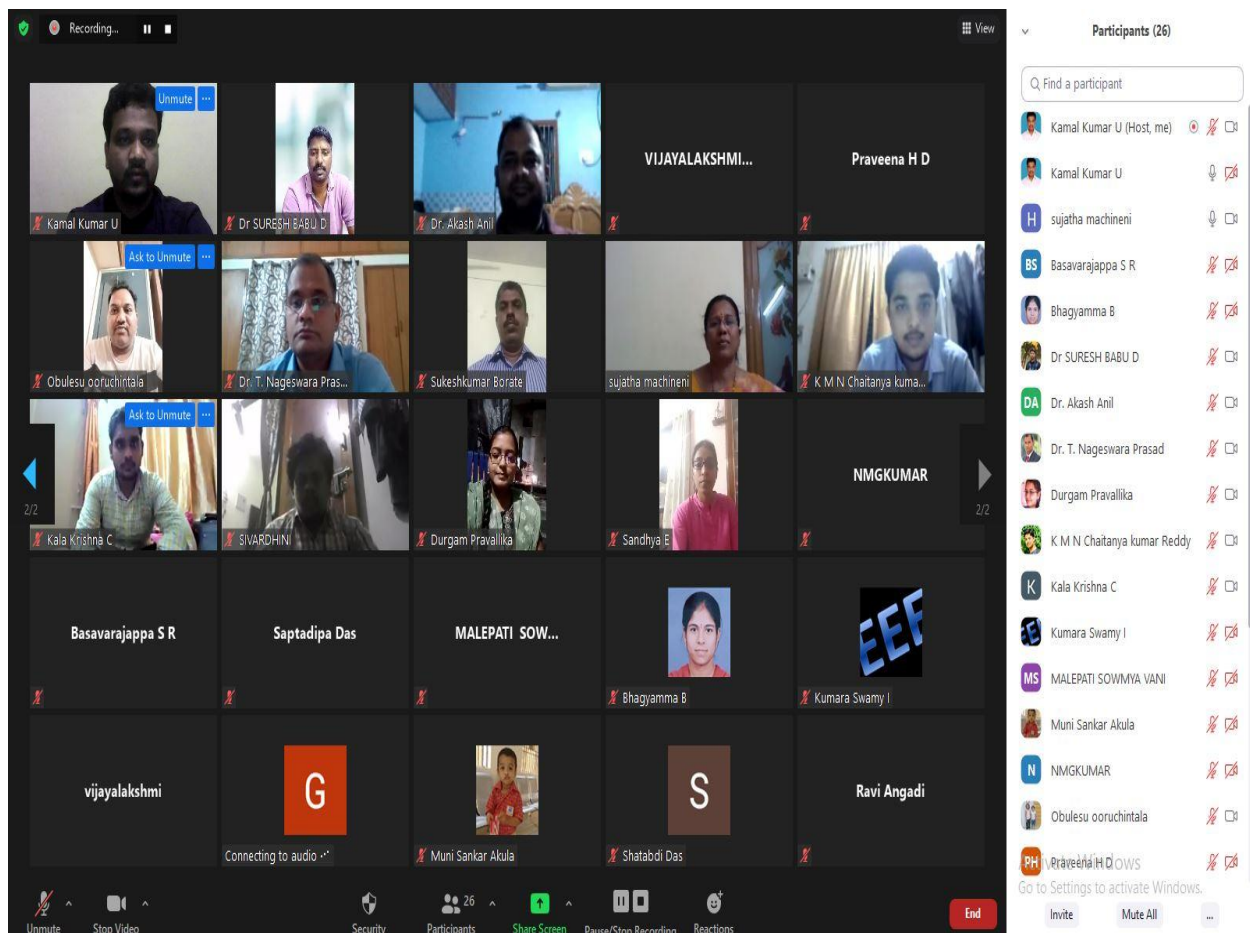

Participants in the Technical Session for Day-4

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Day 5: Technical Session: 18-06-2021, 5:00 P.M to 8:00 P.M.

Speaker: Dr. Akash Anil, Assistant Professor, SRM University AP, Amaravati, Andhra Pradesh

Classification in Machine Learning: Concepts and Hands-on

The speaker has given a brief introduction about the classification techniques used for various applications. He has considered few example and made the participants understand how they can be classified in python software. Later he developed few algorithms in the software and compared them w.r.t the other one explained them clearly.

Participants in the Technical Session for Day-5

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Day 5: Valedictory Function: 18-06-2021, 8:00 PM to 8:30 PM

The honourable dignitaries present in this occasion were
1) Dr. Akash Anil, Assistant Professor, SRM University AP, Amaravati, Andhra Pradesh.
2) Dr. O. Obulesu, Associate Professor, G. Narayanamma Institute of Technology & Science, Hyderabad, Telangana
3) Mr. Ch. Rayala Vinod Kumar, Data Analyst/ Snowflake Consultant, Estuate Software Services Pvt. Ltd, Bangalore
4) Ms. Shatabdi Das, Data Science Trainer, Training & Learning India, Bhopal.
5) Dr. T. Nageswara Prasad, Vice Principal, Sree Vidyanikethan Engineering College.
6) Dr. M. S. Sujatha, Head of the Department of EEE, Sree Vidyanikethan Engineering College.
7) Dr. D. Suresh Babu, Associate Professor, EEE and Convener of the Program.

Mr. U. Kamal Kumar, Co-convener of the program has welcomed all the dignitaries and participants to the valedictory session.

Dr. M. S. Sujatha, Professor & HOD EEE, Sree Vidyanikethan Engineering College congratulated the convener and co-convener of the program for organizing in a smooth manner.

Dr. T. Nageswara Prasad, Vice Principal, Sree Vidyanikethan Engineering College has congratulated and appreciated the organizers and Department of EEE for organizing such a multidisciplinary program and expressed as an person in an administration level, it was really helpful to make use of such data analytical tools for various application.

Dr. Akash Anil, Assistant Professor, SRM University AP, Amaravati, Andhra Pradesh has thanked the organizers for giving such an opportunity to share the knowledge in this platform. He appreciated the participants for actively involved in this learning process.

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The participants were asked to share their experience and learning of the whole program. Dr. N. M. G. Kumar, Professor, EEE, SVEC, Tirupati, Dr. A. Muni Sankar, Associate Professor, Sree Rama Engineering College, Mr. A. Ravi Kumar, Assistant Professor, EEE, Presidency University, Bangalore, Mr. Ch. Srinivas, Assistant Professor, EEE, Sri Vasavi Engineering College has shared their experiences of the workshop and expressed their gratitude to the organizers for providing content rich sessions in the feedback session.

Dr. D. Suresh Babu, Convener has summarized the program and thanked each and every speaker for giving their valuable time to make the participants aware about the importance of data science and machine learning. He also emphasized that after the completion of this FDP, now the participants may apply for their own individual research problems get some good publications. he also thanked every participants for being active in all the session, though the sessions were conducted in the evening times.

The FDP was ended with the vote of thanks from Mr. U. Kamal Kumar, Co-convener of the program.

All the personalities appreciated the Department for organizing the workshop. The certificates and course material were sent to the participants.

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Dr. D. Suresh Babu
(Convener)

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