Guest Lecture

On "Classification Techniques for High Dimensional Data"

The Department of CSE, MVJ College of Engineering organized a guest lecture on "Classification Techniques for High Dimensional Data" on 31st March 2018 at Smt. Rajalakshmi Jayaraman Seminar Hall. The purpose of this guest lecture was to expose the students to the basic concepts of machine learning, the various classification techniques used in machine learning and the applications in which these classification techniques are applied.

The guest speaker was Dr. V. Susheela Devi (Principal Research Scientist/IISc). She is having more than two decades of rich academic and research experience. She was awarded PhD from Indian Institute of Science in the year 2000. She is currently working as Principal Research Scientist in IISc, Bengaluru. She has many journal and conference publications to her credit and has been the session chair at many national and international conferences.

The students (6th and 8th sem/CSE) and faculty members arrived by 9:30 am to grace the occasion. The event started at 10.00 am with a welcome speech by student Ravi Bagdi (6th sem/CSE). Dr. V. Susheela Devi (Principal Research Scientist/IISc) and Prof. I. Manimozhi (HOD/CSE) were seated on the dias.

Prof I. Manimozhi (HOD/CSE) welcomed Dr. V. Susheela Devi (Principal Research Scientist/IISc) with a bouquet. A brief introduction about the Guest Speaker was given. There were about 200 participants for the guest lecture. Dr. V. Susheela Devi the Guest Speaker started her lecture at 10:00 am

Dr. V. Susheela Devi started her lecture by first giving an introduction about Machine Learning and its basic concepts. She spoke about the various tasks involved in machine learning and also gave a detailed explanation about the various classification techniques used in Machine Learning.

Machine Learning is the Science of getting computers to learn and act like humans and improve their learning over-time in an autonomous fashion by feeding them data and information in the form of observations and real-world interactions. It is a scientific discipline concerned with the design and development of algorithms that allow computers to evolve behaviors based on empirical data such as from sensor data or databases. She explained in detail each of the above machine learning tasks.

The various classification tasks involved in Machine Learning are

a) Classification
b) Clustering
c) Regression

d) Anomaly Detection
e) Summarization

The various classification techniques used in Machine Learning are

a) K-nearest neighbour
b) Hyperplanes
c) Decision Trees
d) Set of rules
e) Graphical Models

All the above classification techniques were explained in detail by Dr. V. Susheela Devi . She also spoke about the various applications for machine learning classification which includes Fraud detection, image recognition, weather prediction, etc. She further explained the various clustering methods such as density-based methods, hierarchical methods, partitioning and grid-based methods. Dr. V. Susheela Devi briefed the audience with the K-means clustering algorithm. She spoke on different applications in which clustering would be applied like Recommendation engines, Social network analysis, Search result grouping Medical imaging, Image segmentation, Anomaly detection.
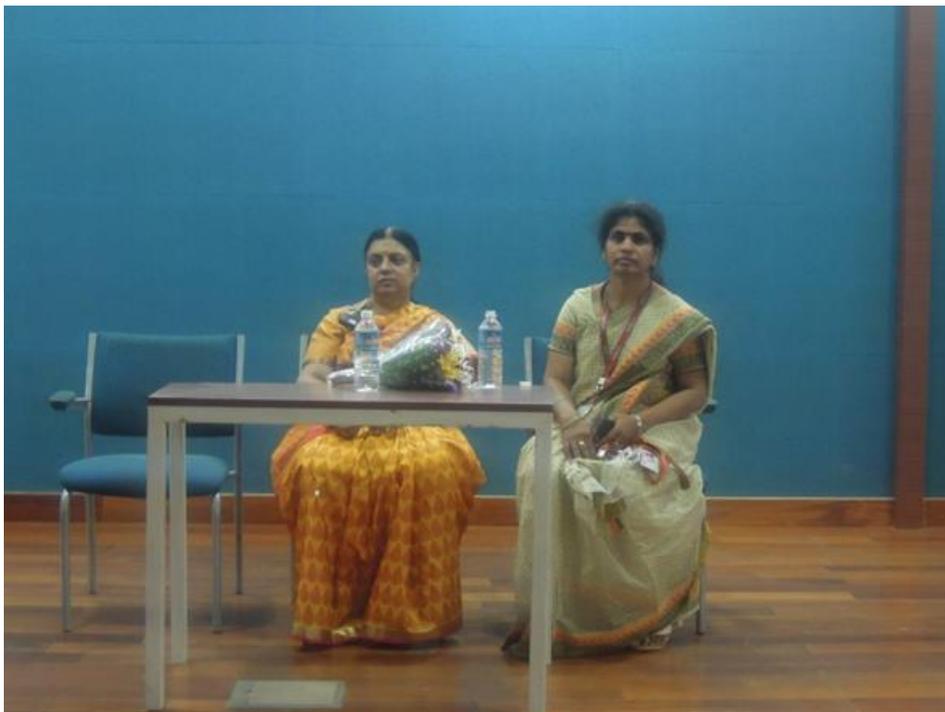
She also interacted with the students by giving various suggestions on how to work on projects related to machine learning. She answered the questions posed by the students regarding the various techniques used in machine learning.

Student Ravi Bagdi (6th sem/CSE) giving the welcome speech at guest lecture on "Classification Techniques for High Dimensional Data" organized by Department of CSE, MVJCE on 31st March 2018 at Smt. Rajalakshmi Jayaraman Seminar Hall.

Prof I. Manimozhi (HOD/CSE) welcoming Dr. V. Susheela Devi (Principal Research Scientist/IISc) at guest lecture on "Classification Techniques for High Dimensional Data" organized by Department of CSE, MVJCE on 31st March 2018 at Smt. Rajalakshmi Jayaraman Seminar Hall.
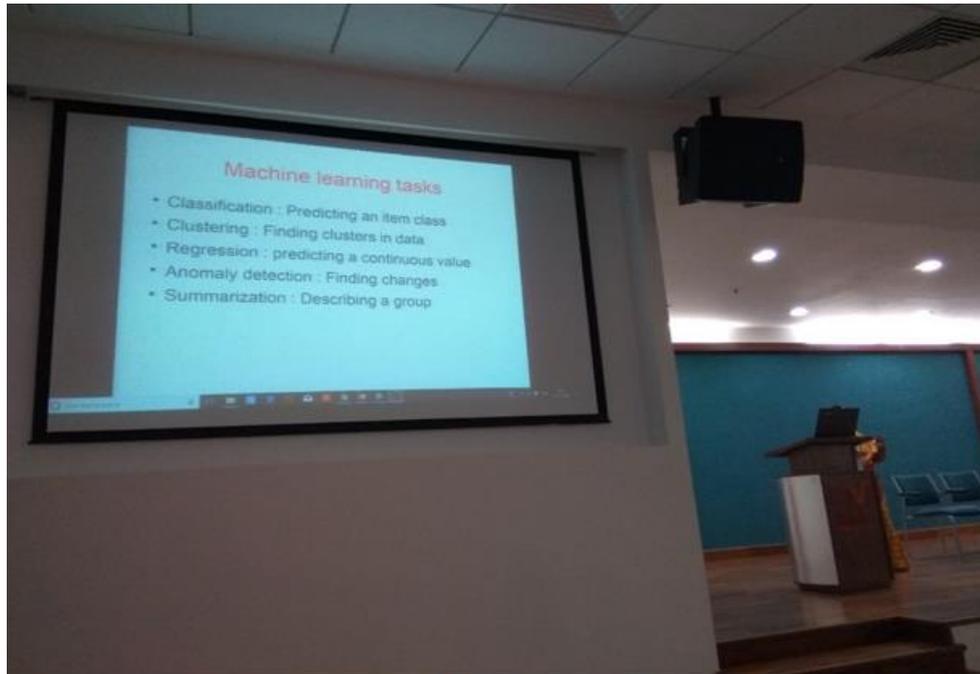

(L to R) Dr. V. Susheela Devi (Principal Research Scientist/IISc) and Prof I. Manimozhi (HOD/CSE) seated on dias during guest lecture on "Classification Techniques for High Dimensional Data" organized by Department of CSE, MVJCE on 31st March 2018 at Smt. Rajalakshmi Jayaraman Seminar Hall.
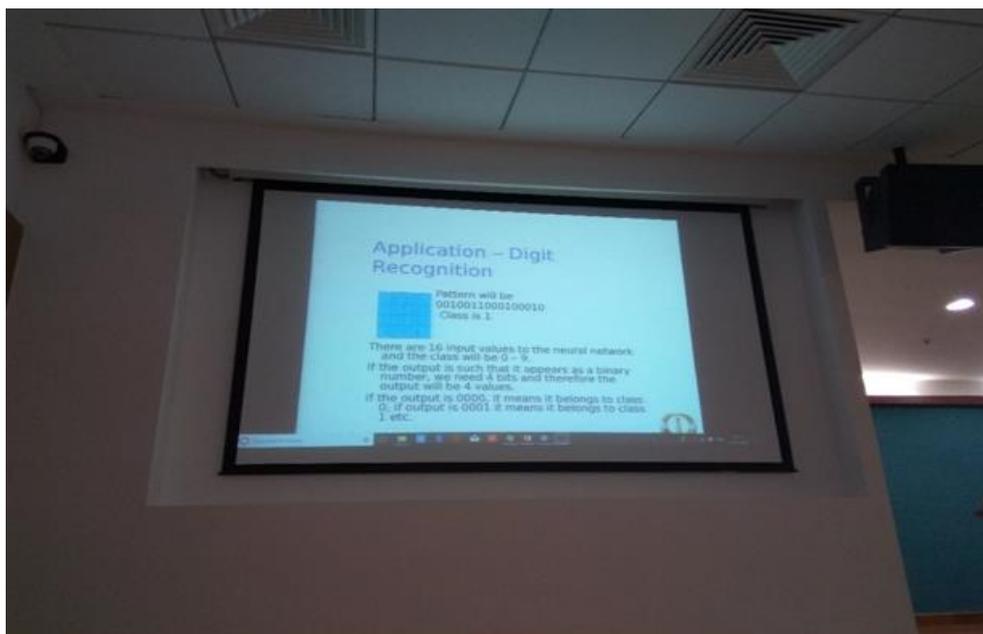
Dr. V. Susheela Devi (Principal Research Scientist/IISc) delivering the guest lecture on "Classification Techniques for High Dimensional Data" organized by Department of CSE, MVJCE on 31st March 2018 at Smt. Rajalakshmi Jayaraman Seminar Hall.

Dr. V. Susheela Devi (Principal Research Scientist/IISc) delivering the guest lecture on "Classification Techniques for High Dimensional Data" organized by Department of CSE, MVJCE on 31st March 2018 at Smt. Rajalakshmi Jayaraman Seminar Hall.

Slide from the Guest Lecture on "Classification Techniques for High Dimensional Data" organized by Department of CSE, MVJCE on 31st March 2018 at Smt. Rajalakshmi Jayaraman Seminar Hall.

Slide from the Guest Lecture on "Classification Techniques for High Dimensional Data" organized by Department of CSE, MVJCE on 31st March 2018 at Smt. Rajalakshmi Jayaraman Seminar Hall.

Students (6th and 8th sem / CSE) who participated in the Guest Lecture on "Classification Techniques for High Dimensional Data" organized by Department of CSE, MVJCE on 31st March 2018 at Smt. Rajalakshmi Jayaraman Seminar Hall.

Dr. V. Susheela Devi (Principal Research Scientist/IISc) interacting with students during the Guest Lecture on "Classification Techniques for High Dimensional Data" organized by Department of CSE, MVJCE on 31st March 2018 at Smt. Rajalakshmi Jayaraman Seminar Hall.

Students (6th and 8th sem / CSE) interacting with Dr. V. Susheela Devi (Principal Research Scientist, IISc) during the Guest Lecture on "Classification Techniques for High Dimensional Data" organized by Department of CSE, MVJCE on 31st March 2018 at Smt. Rajalakshmi Jayaraman Seminar Hall.

(L to R) Dr. V. Susheela Devi (Principal Research Scientist/IISc) honoured by Prof I Manimozhi (HOD/CSE) with a token of appreciation at the end of the Guest Lecture on "Classification Techniques for High Dimensional Data" organized by Department of CSE, MVJCE on 31st March 2018 at Smt. Rajalakshmi Jayaraman Seminar Hall.

By the end of the Guest Lecture, the students had a thorough understanding about the basics of Machine Learning, the various Classification and Clustering techniques and its applications. The guest lecture was conducted to attain the PO's **Engineering Knowledge, Problem Analysis, Design/Development of solutions, Modern Tool Usage, Life Long Learning.**