

Report

Expert Talk by

Dr. Suman Mitra

on

Dimensionality Reduction for Image Recognition (March 01, 2019)

Organized by Dharmsinh Desai University IEEE Student Branch

In collaboration with



Expert : Dr. Suman Mitra, Dean - Academic Programs, DAIICT, Gandhinagar.

Total No. of Participants : 95 (27 IEEE Members + 58 Non IEEE Members)

On 1<sup>st</sup> March 2019 DDU IEEE Student Branch conducted an Expert Talk under Section Technical Expert Program (STEP) titled Dimensionality Reduction for Image Recognition. The talk started at around 3.30 pm in Seminar Hall. The expert for the event was Dr. Suman K. Mitra, Dean - Academic Programs at DA-IICT, Gandhinagar. Dr. Prarthan Mehta, Student Branch Counselor greeted the speaker.

Dr. Suman Mitra briefly discussed about a couple of buzz words namely, Artificial Intelligence and Machine Learning. He, then focused on importance of dimensionality reduction for image recognition. He, further gave details of existing techniques for dimensionality reduction namely, Principal Component Analysis and Linear Discriminant Analysis. He also discussed Isometric Map and Locality Linear Embedding techniques for dimensionality reduction. A brief approach for motivation behind improving those techniques further was then covered. Then, he presented modifications done by them in the existing techniques with a variety of case studies. He also presented implementation of the modified algorithms on video data. A wide range of results were presented and analysed to show that the modified algorithms published by Dr. Suman Mitra's group were proved superior in many aspects with reference to the existing techniques for dimensionality reduction for image recognition.

The talk concluded at 5:30 p.m. Dr. Prarthan Mehta, Student Branch Counselor, thanked the speaker with a memento. Dr. Prarthan Mehta and his team, then discussed about the benefits of joining IEEE as Student Member to the students. Dr. Suman Mitra and Dr. Mukesh Goswami presented discounts and benefits while joining Signal Processing Society.

