

# Report Talk On

## **“Generative and Discriminative Models in the paradigm of Deep-Learning”**

**IEEE Signal Processing Society Chapter of Gujarat Section,  
GUJCOST, Signal and Image Processing (SiP) Club  
Electronics and Communication Engineering Department  
Sarvajnik College of Engineering and Technology, Surat**

**Organizers:** IEEE Signal Processing Society, Chapter Gujarat Section IEEE Gujarat Section, Electronics and Communication Engineering Department, SCET

**Date:** 08/02//2019

**Venue:** AV Room EC Dept. SCET

**Speaker:** Dr. Suparva Patnaik, Head of Electronics and Telecommunication Engineering Department at Xavier Institute of Engineering, Mumbai.

**Coordinators:**

Signal and Image processing club, Electronics and Communication Dept., SCET and IEEE Signal Processing Society Chapter of Gujarat Section organized a talk on **“Generative and Discriminative Models in the paradigm of Deep-Learning”** in Sarvajnik College of Engineering and Technology, Surat. The talk was delivered by Dr. Suparva Patnaik. Suprava Patnaik received B.Tech & M.Tech degree from NIT, Rourkela in 1988 and 1991 respectively. She was awarded PhD from IIT Kharagpur for her work on “Image compression by using Sub-band coding and NN”, in 2004. She has more than 29 years of teaching experience and served as faculty at various institutions of National repute, which includes NIT Rourkela and SVNIT, Surat. She was on deputation to University of Western Australia, Perth, during 2015-2017. She has nearly 100 publications to her name, published in various Journals and conferences. Her primary research interest includes machine learning and their applications in computer vision, speech processing, and bioinformatics. She has successfully guided nine PhDs. At present she is working as Professor and Head of Electronics and Telecommunication Engineering Department at Xavier Institute of Engineering, Mumbai. Deep learning involves enormous processing. Selection of correct model and right structure plays crucial task in every deep-learning based application. Even though there is no magic answer to those questions, there are several ideas that could guide our decision-making process. A simple classification problem can be handled either by identifying discriminative features or by looking at similarity between an input and features regenerated by samples belonging to a class. Over the last decades CNN and

LSTM have proven themselves to be useful and reliable in wide range of applications. The presentation will focus on how to select core deep architecture, CNN or RNN, and supplement it by other discriminative or regenerative models. The two applications considered for this demonstration are speech emotion detection by using LSTM and constrained free face recognition by using CNN.

Around 90 enthusiastic UG/PG scholars and faculties from EC, IC, IT, MCA, CO department SCET and other colleges participated in the talk.

It was truly an effective session with thorough teaching, learning and understanding qualities. Some snapshots have been appended below as a glimpse of talk.



