

Activities Conducted

Activity 1: Two Week Short Term Training Program on “Statistical Inference and Linear Algebra”, 16th - 21st December 2013

Course Contents :

Introduction to Probability, Random Variables, PDFs, CDFs, properties, Auto and Cross correlation, Moments and averages, Moment generating functions, modelling of the random experiment, Random processes, Estimation theory, Estimators- Need, types and models, Statistical inference, Hypothesis testing, Linear Algebra – Vector spaces, subspaces and their applications in Signal Processing

Facilitators:

Prof. S. D. Joshi, Professor, IIT Delhi and

Dr. Sarat Chandra Dass, Associate Professor, UTP, Malaysia

Participants: 50

1. External (Outside SGGS) : 15
2. Internal M. Tech Students : 25
3. Internal Faculty Members : 10

Proceedings of the Course :

The Course is inaugurated by Prof. Shiv Dutt Joshi, Professor of Electrical Engineering IIT Delhi on 16th Dec 2013. On the same day he has introduced the concepts and motivation of Statistical Signal Processing. He step by step explained how to learn the subject of statistical Signal Processing and the contents therein. Starting from Probability, Random variables, Stochastic Processes, Moments, Moment Generating functions, LMS algorithm : Need and derivation and linear algebra touch to understand the concepts. From Second day onwards, Dr. Sarat Chandra Dass during 17th Dec 2013 to 21st Dec 2013, again strengthened the concepts of Probability, Random Variables, pdf, PDF, Joint PDFs, Sample examples of PDFs, and pdfs, their applications, Central Limit Theorem, Moments, Moment Generating functions, Modelling of random experiment, and then ended up in statistical inference, Different types of estimators, Hypothesis testing. He also held a few introductory lectures on Linear algebra, Spaces and subsaces, which were to be taken by Dr. Nidal, from UTP Malaysia who could not make it because his VISA not cleared by Indian Embassy in Malaysia.

All the participants actively participated in the process of learning the subject and made it interesting by asking lo of questions and discussed the issues with the course faculty.

The Course was held from 9.30AM to 5.30PM on all the days.

Coordinators: Prof. Y. V. Joshi and Prof. R. R. Manthalkar