



Eshan College of Engineering

Approved by AICTE, New Delhi and Affiliated to AKTU (Formerly UPTU) & BTE, Lucknow

Detailed Report

Seminar on- "Design of Experiments & Its Importance" (Two-days)

Subject Area- Research Methodology

Organized by- Faculty, ECE

A strategically planned and executed experiment may provide a great deal of information about the effect on a response variable due to one or more factors. Many experiments involve holding certain factors constant and altering the levels of another variable. Design of experiments (DOE) is defined as a branch of applied statistics that deals with planning, conducting, analysing, and interpreting controlled tests to evaluate the factors that control the value of a parameter or group of parameters. It is extremely necessary to interpret the importance of Design of Experiments in young minds from logical perspective which motivated our honourable Director Dr. Ghanshyam Srivastava to invest his precious time and become a speaker for **"Design of Experiments & Its Importance (Research Methodology)"** seminar from 05/02/2018 to 06/02/2018.

The faculty always works tirelessly for the betterment of students and making them future ready in the best possible and adaptable manner. Our Director stated that design of experiments (DoE) is a technique that can be used to efficiently explore the relationships and develop greater understanding. Consequently, DoE is becoming increasingly central to the advancement of nanotechnology and nanomanufacturing. He started with an introduction to DoE and discussed the One Factor At A Time approach which is generally used





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among scientists and engineers. He considered traditional methods implemented in experimentation in practice. He also proposed modern DoE methods that are appropriate and suggested DoE methods that map to particular areas.

Prof. Manish Kumar, AP, ASH also talked about grey relational analysis, multi objective optimization, factorial and ANOVA analysis with DOE for robust design and applicability of DOE. Students were imparted knowledge about recent trends in Design of Experiments and expose them in the current scenario of techniques. It was a successful and enlightening time for ECE students and faculty. 33 students were a part of this seminar.

