ABOUT THE UNIVERSITY

Gautam Buddha University, established by government funding in 511 acres lush green campus at Greater Noida encourages multidimensional growth through its education, training and research. The University envisions becoming a world class centre for excellence in education & research. The academic programmes, designed in line with the best universities around the world, combine the best practices of pedagogy and class room teaching, complemented by practical training and experiential learning. In order to promote value-based education, research and training, the University has established eight schools. To cater the engineering disciplines; School of Engineering, Information & Communication Technology and Built Environment & Architecture offers Post Graduate & Doctoral level studies in the branches of Engineering & Technology including interdisciplinary domains. In terms of infrastructure the University can boost of having world class facility.

ABOUT SCHOOL OF ENGINEERING

School of Engineering has been conceptualized and established with an objective to work out and develop a dependable model for growth, consistency and significant breakthrough in cutting edge technology and innovation. The rapid diffusion of core engineering fields like Mechanical and Electrical Engineering has the potential of bringing improvement in productivity and

efficiency in almost every aspects of our life and consequently turning out to be a key driver of our economic growth. We ensure that our graduate students possess necessary skills like Creativity, Innovation, Critical Thinking, Problem Solving and Collaboration.

INTRODUCTION

Design of Experiments (DOE) or Experimental Design is an important tool for improving the performance of a manufacturing process. It also has extensive applications in the development of new process. It is a systematic approach to investigate a system or process. A series of structured tests are designed in which planned changes are made to the input variables of a process or system. It has more to offer than 'one change at a time' experimental methods, because it allows a judgment on the significance to the output of input variables acting alone, as well input variables acting in combination with one another. DOE can be used to find answers in situations such as

1) "What is the main contributing factor to a problem or response?"
2) "How well does the system/process perform in the presence of noise?",
3) "What is the best configuration of factor values to minimize variation in a response or output?" etc.

GAUTAM BUDDHA UNIVERSITY
GREATER NOIDA

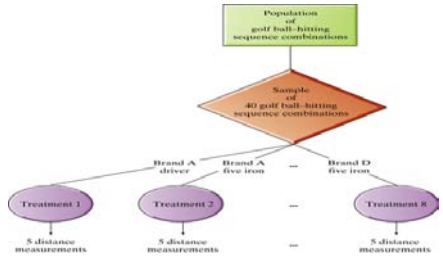
ANNOUNCES

Short Term Training Programme (STTP)

on

Design and Analysis of Engineering Experiments

(July 4th – July 8th, 2011)



$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_{11}X_1^2 + \beta_{22}X_2^2 + \beta_{33}X_3^2 + \beta_{12}X_1X_2 + \beta_{13}X_1X_3 + \beta_{23}X_2X_3 + \varepsilon$$

constant
main effects
curvature
interactions
error

Organised by

SCHOOL OF ENGINEERING

REGISTRATION FORM

Design and Analysis of Engineering Experiments

Full Name:_____

Designation:_____

Department:_____

Organisation:_____

Experience (in years) Teaching:_____ Industry:_____

Address of Correspondence:_____

_____

_____

Pin Code:_____ Phone:_____

Mobile No.:_____ E.mail:_____

Registration Category: (Please Tick)

- ☐ Participants from Industry
- ☐ Students & Research Scholars
- ☐ Institutional Participants / Faculty Members

Details of Registration Fee:

Name of Bank & Branch :_____

DD No.:_____ Dated:_____

For Rs.:_____

(DD should be in favour of "Gautam Buddha University", Payable at Greater Noida)

Date: Signature of Participant

The applicant is hereby sponsored and will be permitted to attend the STTP.

Signature and stamp of the Sponsoring Authority

- No TA/DA will be paid.

SCOPE AND OBJECTIVES OF STTP

DOE is a powerful tool that can be used to tackle some of the more challenging quality improvement needs. The use of experimental design can result in products that are easier to manufacture, products that have enhanced field performance and reliability, lower product cost, and shorter product design and development time.

The objective of this course is to provide in depth knowledge to the participants about full factorial/fractional factorial experiments and orthogonal experiments, Conduct experiments and analyze data using ANOVA and Response surface Graph, Improve Quality of products and process through Robust Design. In addition to this the objective of this course is to present a user-friendly optimization technique, and show the benefits of optimization in improving and developing a product to meet customer requirements and reducing overall costs.

COURSE CONTENTS

1) Overview of Statistics and Hypothesis Testing
2) Application areas of DOE
3) Basic experimental designs and Graphical presentation
4) General factorial designs
5) Two-level factorial & fractional factorial designs
6) Three-level factorial & fractional factorial designs
7) One-way ANOVA, Two-way ANOVA
8) Regression models
9) Taguchi Methods
10) Computer applications - Response surface methodology (RSM)- Case Studies
11) Multi Response

RESOURCE PERSONS

Expert course faculty in this field shall be drawn from various IITs, NITs and GBU.

REGISTARION FEE

Participation from Industry : Rs. 3000/-
Institutional Participants / Faculty Members : Rs. 2000/-
Students and Research Fellow : Rs. 1000/-

Registration fee will cover study material, lunch and stay in GBU Hostels. Demand draft is to be drawn in favour of "Registrar, Gautam Buddha University" payable at Greater Noida)

IMPORTANT DATES

Last date for submission of Registration form with Fees : 7 June 2011

Intimation of confirmation : 17 June 2011

(Demand draft is to be in favour of "Gautam Buddha University" payable at Greater Noida)

Please send your registration form to:

Dr. Satpal Sharma, Assistant Professor,
School of Engineering,
Gautam Buddha University,
P.O. Kasna, Greater Noida,
Uttar Pradesh - 201310

PROGRAMME COORDINATORS

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