Teaching Statistics to Engineers:
Learning from Experimental Data

Prof. V. MANDREKAR
Department of Statistics and Probability
Michigan State University, USA

Date 30 September 2016 (Friday)
Time 10:30am - 11:30am
Venue B6605, 6/F, AC1

Abstract

The purpose of this talk is to claim that engineers can be motivated to study statistical concepts by using applications in their experiences. The main idea is to choose a data set and to explain that even if the aspects used do not meet exact specifications they can be used in practice. By graphing the data one can show that the error is random but follow a distribution, that is, there’s regularly in the data in statistical sense. As the error distribution is continuous, we advocate that variables with probabilities connected with areas under the density. The discrete random variables are then introduced in terms of decision connected with size of the errors before generalizing to abstract concept of probability. Using software, they can then be motivated to study statistical analysis of the data they encounter and the use of this analysis to make engineering and management decisions.

About the Speaker

V. Mandrekar obtained his Ph. D degree from the Department of Statistics at the Michigan State University (MSU) in 1964 after his B.A (Hon) degree in Mathematics from Elphinstone College in Bombay India. He has been a
Professor of Statistics and Probability at the MSU since 1972. During this time, he was the Chair of the department for ten years (1975-1985). He was awarded the Distinguished Faculty award in 1990, the first in the history of the department. He has been a visiting scholar at several universities on all continents including a visiting member of Army research Center (Madison, Wisc.), Center for Stochastic Processes (UNC, Chapel Hill), and Senior National Academy of Science Fellow at the Naval Postgraduate School. V. Mandrekar has been an invited speaker at several International conferences held at various institutions around the world including Oberwolfach, Germany and Trinity College in Ireland. He had guided more than 30 students for Ph. D degrees in Statistics, Probability, Mathematics, Electrical Engineering, Computer Science, and Zoology. His work has been published in several top journals and as Benchmarked papers in Computer Science and Electrical Engineering. He has had grants from NSF, Army Research, ONR and others with support in different areas. Recently he has been writing books. Four recent publications are on the subject of Stochastic PDE (2011), Stochastic integration with respects to jump process (2015), Stochastic Analysis of Gaussian random fields (2016) and Weak convergence of Stochastic processes with statistical applications (2016).

Enquiry: 3442 2147

All are Welcome!