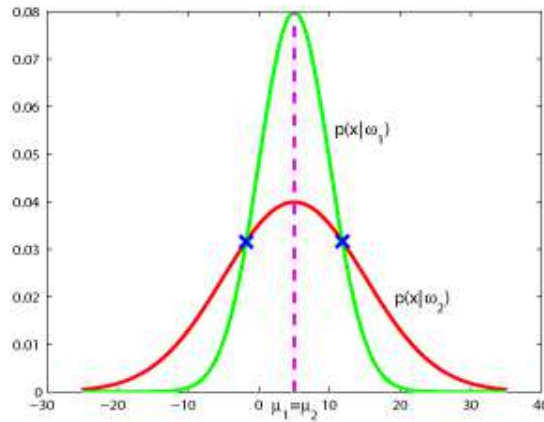


# GC-7002 Probability and Stochastic Processes



## Synopsis:

Probability, random variables and stochastic processes are extremely important concepts in almost all fields of engineering and sciences. Electrical engineers in particular need to have good understanding of probabilistic modeling. This course fulfills this very basic and extremely significant requirement by providing a detailed description of fundamental probability concepts such as conditional probability, random variables, distribution functions, probability density functions, moments of a random variable, characteristic functions, moment generating functions, joint distributions, concepts of stochastic process, correlation and covariance etc. This core course in probability and random signals prepares students for a wide range of courses in electrical engineering.

## Instructor:

The course will be taught by Dr Imran Naseem ([imrannaseem@pafkiet.edu.pk](mailto:imrannaseem@pafkiet.edu.pk)). He holds a PhD degree in Electrical, Electronics and Computer Engineering from the University of Western Australia (UWA). Dr Imran has also worked as a Research Fellow at Curtin University of Technology, Australia. He has published in the highest impact factor journals such as IEEE Transactions on Pattern Analysis and Machine Intelligence and Pattern Recognition Journal. He has a number of research papers and book chapters to his credit including the prestigious IEEE ICIP conference. Current focus of his research is on multimedia signal processing including face recognition and texture analysis.