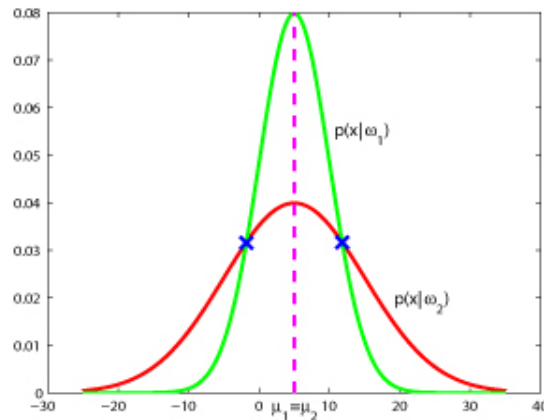


# EE7103-Pattern Classification

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## Synopsis:

In a number of applied fields of electrical and computer engineering, there are problems where a decision has to be made with limited knowledge. These are typically pattern recognition problems and can adequately be formulated in the context of a decision theory. The course “Pattern Classification” aims to develop the analytical skills of taking the best decision based on certain cost function(s). In the past decade, pattern classification has given us self-driving cars, practical speech recognition, effective web search, and a vastly improved understanding of the human genome. Pattern recognition is so prevalent that you probably use it dozens of times a day without knowing it. Many researchers also think it is the best way to make progress towards human-level AI. In this class, you will learn about the most effective pattern classification techniques, and gain practice implementing them and getting them to work for yourself. More importantly, you'll learn about not only the theoretical underpinnings of learning, but also gain the practical know-how needed to quickly and powerfully apply these techniques to new problems. **Special emphasis on course project is given and students will be guided to publish in reputable journals and conferences.**

## 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 high impact factor journals such as IEEE Transactions on Pattern Analysis and Machine Intelligence, International Journal of Computer Vision 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 biomedical signal processing.