Pattern identification using data mining tools

Presentation Outline
Is there a possibility that data mining methods could be used to predict potential intruder activities? Intrusion Detection Systems (IDS) are used to detect unauthorised users on a system. The two main categories of detection approaches that can be implemented are signature or misuse-based detection, and anomaly-based detection. Data mining is one of the approaches that belong to both of the detection categories. This research investigates four data mining methods that could be potentially utilised to identify patterns within intruder activities. Artificial Neural Networks (ANN), Support Vector Machine (SVM), Decision Trees and Association Rule Mining (ARM) are methods that will be discussed at this presentation along with research on the potential use of these data mining methods that could be used for early intrusion detection.

Speaker Profile
Priya Rabadia is currently completing her PhD with ECU’s School of Computer and Security Science, and sits primarily within ECU’s Security Research Institute. She has published conference papers in investigating and analysing data gathered from honeypots on intruder interactions. Priya’s PhD research is in predicting intruder patterns using data mining tools. Her interests are in the domains of network security and data mining.