**Title: WIFI and IMU sensor based Indoor localization using Deep Learning Technique**

**Abstract:** In this project, we will develop an indoor localization system using state-of-the-art deep learning technique from wifi signal. For localization, GPS (Global positioning system) is widely used. However, the performance of GPS degrades significantly inside any building. Hence, new technology is needed to solve this problem. As we all know, every modern building is equipped with numerous numbers of wifi routers and every person carries a smart phone with embedded wifi receiver. By measuring the received strength of wifi signal (RSS) from the smart phone, it is possible to locate the phone as well as the person. There exists three type of approaches to solve the problem known as triangulation, scene analysis and proximity. Our approach lies in scene analysis. We will apply deep neural network technique to a dataset contains 2D location information, RSS value recorded from a smart phone, IMU (Inertial measurement unit) sensor reading from a smart phone and a smart watch.