Abstract:

Key points –

The key philosophy of engineering is to improve the wellbeing of people within society.

\*Gather statistics for falls and present them\*

Every year in the USA alone, XXXX patients living within assisted care will experience a fall and XXXX of them will die as a result of care arriving too late. However, the world is currently experiencing the Internet of Things Revolution with the miniaturization of sensors and Wi-Fi chipsets, and as such a solution might not be far away.

This research paper will examine the development of a wearable technology device capable of identifying when the user falls as well as determining their indoor location using Wi-Fi Signal triangulation. The theoretical concepts of radio signal-strength based triangulation and the complexities encountered will be discussed and the machine-aided learning approaches taken to eliminate false-positive “Fall” detections will be explored.