

## **A passive forward scattering radar for detecting humans and characterizing human behaviours**

### **ABSTRACT**

**Background:** The capability to detect human and identify their movement is progressively important in military and security applications. Usually, most of the radar systems are active systems which it is easily to be detected by the opponent. In consequence, passive radar is set to become alternative to conventional active radar which it offers a decisive operational advantage, it could not be located. Passive radar does not emit any signals of its own which it could not be jammed. Therefore, passive radar use many different transmission sources that are sent out from various location to detect ground moving target especially human. **Objective:** The integrating of passive forward scattering radar that provide a lot of benefits and capable to detect human and characterize human behaviors which the radar system analysis and signal processing are using MATLAB software. **Results:** The radar system able to detect human and characterize the behaviors which divided into two movements, walking and running. **Conclusion:** This is the evolving area of research provide a more useful outcomes in detecting and characterizing the human movements specifically used the passive forward scattering radar concept of unseen by others.

**Keyword:** Human; Passive forward scattering radar; MATLAB