**CONCLUSION:**

SSD and Faster RCNN algorithms are simulated for pre labeled and self-created image dataset for weapon (gun) detection. Both the algorithms are efficient and give good results but their application in real time is based on a tradeoff between speed and accuracy. In terms of speed, SSD algorithm gives better speed with 0.736 s/frame. Whereas Faster RCNN gives speed 1.606s/frame, which is poor compared to SSD. With respect to accuracy, Faster RCNN gives better accuracy of 84.6%. Whereas SSD gives an accuracy of 73.8%, which is poor compared to faster RCNN.SSD provided real time detection due to faster speed but Faster RCNN provided superior accuracy. Further, it can be implemented for larger datasets by training us ing GPUs and high-end DSP and FPGA kits [16] [17].