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Submitted in partial fulfilment of the requirement

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**IN**

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Submitted by

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**CERTIFICATE**

This is to certify that the thesis entitled ***“*INTRUDER MOTION DETECTION AND RECORDING IN THE REGION OF INTEREST*”*** beingsubmitted by Mrs. Yogeswari Tolia, in the partial fulfilment of the requirement for the degree of Master of Technology in VLSI Design & Embedded System in the Department of Electronics & Communication, Delhi Technological University, Delhi **is** a bonafide record of the research work done by her under my supervision and guidance. The contentsof this thesis, in full or in parts, have not been submitted to any other Institute orUniversity for the award of any degree.

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**ABSTRACT**

This thesis is related to the broad subject of automatic motion detection and analysis in video Surveillance image sequence. Besides, proposing the new unique solution, one of the previous Algorithms are implemented. It has drawn an increasing attention in recent years due to its applications such as Communication, traffic monitoring, security surveillances, robot navigation and servicing. Despite the fact that much research efforts have been devoted to this area, detecting moving object using stationary moving camera remains a great challenge. The research undertaken in this thesis is mainly concentrated on developing reliable and robust intruder motion detection and recording system. The basic idea behind this system is that the motion of the moving object is different with the motion of background object. An improved background subtraction method has been applied for the motion detection .Research work shows that under most of the problematic environment, the proposed SAD algorithm shows the better quality result. By using the technologies, it is possible to monitor and capture every inch and second of the area in interest. However, so far the technologies used are passive in nature, i.e., the monitoring systems only help in detecting the crime but do not actively participate in stopping or curbing the crime while it takes place. Therefore, we have developed a methodology to detect the motion in a video stream environment and this is an idea to ensure that the monitoring systems not only actively participate in stopping the crime, but do so while the crime is taking place. Hence, a system is used to detect any motion in a live streaming video and once motion has been detected in the live stream, the software will activate a warning system and capture the live streaming video.

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