STUDY OF SUITABLE METHODS OF BUILDING EXTRACTION FROM HIGH-RESOLUTION SATELLITE IMAGERIES– CASE STUDY OF JAFFNA, SRI LANKA.

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The building location is a vital data for human settlement planners / town planners for proper planning, implementation of plans and operations.

Present computer systems and software solutions have enough capabilities to analyze the data and produce better results which play a major role in the decision making process. But the traditional method of data collection is not good enough to full fil the increasing demand for the data. Also traditional method has its own flaws; i.e. time consuming, resource demanding and inefficient. To address these issues there is a demand for a new technology.

The image resolution of percent Earth observation satellites has the accuracy of ground sampling distance less than 0.5 m. If satellite imageries used as a mode of building data collection, it will provide a clear solution to overcome the current difficulties.

Highly sophisticated algorithm and workflow are available to extracting building footprint from high resolution satellite image. However each algorithm has its pros and cons; the hardware requirement, time requirement, user friendliness and cost effectiveness are quality barriers and dissimilar for each algorithm. Therefore, this research focus on finding a suitable algorithm to fulfill the requirements of building footprints.