

Development of Real Time System for Human Detection and Localization from Unmanned Aerial Vehicle Using Optical and Thermal Sensor and Visualization on Geographic Information Systems Platform

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Abstract : In recent years, there has been a rapid increase in the use of Unmanned Aerial Vehicle (UAVs) in search and rescue (SAR) operations, disaster management, and many more areas where information about the location of human beings are important. This research will primarily focus on the use of optical and thermal camera via UAV platform in real-time detection, localization, and visualization of human beings on GIS. This research will be beneficial in disaster management search of lost humans in wilderness or difficult terrain, detecting abnormal human behaviors in border or security tight areas, studying distribution of people at night, counting people density in crowd, manage people flow during evacuation, planning provisions in areas with high human density and many more.

Keywords : UAV, human detection, real-time, localization, visualization, haar-like, GIS, thermal sensor

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