**Developing Genetic Algorithm for Survying of MH370 Flight in Indian Ocean Using Altimetry Satellite Data**

**Maged Marghany**

Institute of Geospatial Science and Technology (INSTeG)

Universiti Teknologi Malaysia

81310 UTM, Skudai, Johor Bahru, Malaysia,

maged@utm.my, magedupm@hotmail.com,

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**Abstract:**

This study utilized Genetic Algorithm for automatic detection and simulation of location of MH370 flight and its debris. Multi-remote sensing data based object detection are also used. The altimeter data provided information regarding the water circulation in Indian ocean. The study shows that the The significant wave height in this Indian ocean during surveying MH370 flight is around 3.5 m with a northeast direction of 25 deg. The wavelength is around 80 m. Further, the sea surface current is 0.5 m/s. This current forms a large anticlockwise gyre over water depth of 8000 m. The Genetic Algorithm suggested that objects are existed on satellite data are not MH370 flight. In addition, Genetic Algorithm suggested that the difficulties to acquire the exact location of MH370 flight in Indian ocean due to complicated hydrodynamic movements.