

SHORELINE CHANGE DETECTION WITHIN THE YEAR 2019 UNTIL
2023 OF KUALA TERENGGANU-SETIU COAST

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COLLEGE OF BUILT ENVIRONMENT
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YEAR 2019 UNTIL 2023 OF KUALA TERENGGANU-
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AUTHOR'S DECLARATION

I declare that the work on this project/dissertation was carried out in accordance with the regulations of Universiti Teknologi MARA (UiTM). It is original and is the results of my own work, unless otherwise indicated or acknowledged as referenced work. This thesis has not been submitted to any other academic institution or non-academic institution for any degree or qualification.

I, hereby, acknowledge that I have been supplied with the Academic Rules and Regulations for Post Graduate, Universiti Teknologi MARA, regulating the conduct of my study and research.

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ABSTRACT

The coastal environment is very dynamic, with several biological phenomena including tidal inundation, sea level rise, and land subsidence all contributing to the construction of coastal landscapes. Albeit shoreline being the heart of economic activity, which includes urbanization, fishing and agriculture, but due to corrosion, it resulted in the destruction of property and the loss of land. Therefore, in order to maintain the shoreline in pristine condition, we must understand the pattern of shoreline changes so we can predict the future happenings. The aim of this study is to analyse the shoreline changes in Kuala Terengganu-Setiu coast within the past five years from year 2019 to 2023 using Geographic Information System. To achieve the aim, the objectives of this study are i) to identify the shoreline changes from year 2019 until 2023, ii) to determine average annual shoreline change rate using DSAS and iii) to visualize the shoreline profile changes in a map. Study area chosen is Kuala Terengganu, Terengganu, Malaysia. To achieve the goal, the software, ArcGIS, is utilized to process digital data that depicts the shoreline in Kuala Terengganu-Setiu, Terengganu. Data that will be used includes Sentinel-2A imagery for every chosen year. Method that will be incorporated in this study is Digital Shoreline Analysis System (DSAS). This study can help ensure the safety of local living by the sea, which includes owned business, residential area as well as tourist attractions. In order to maintain a safe coastal environment, it is important to monitor the pattern of shoreline changes.

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