ASSESSMENT OF THE BEACH PROFILE AT TERENGGANU COASTLINE

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DECLARATION

I declare that the work on this project/dissertation was carried out in accordance with the regulations of Universiti Teknologi MARA (UiTM). This project/dissertation is original, and it is the result of my work, unless otherwise indicated or acknowledged as referenced work.

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ABSTRACT

Beach profile changes are influenced by various parameters such as tides, currents, and wave action. Terengganu, located on the east coast of Peninsular Malaysia, boasts numerous attractive coastlines with scenic views, drawing people to its shores. Therefore, it is crucial to detect and monitor coastline changes, particularly in Terengganu, Malaysia. The objectives include determining the beach profile of the Terengganu coastline using Google Earth in 2023, generating coastal slope estimates and beach profiles using a slope algorithm in 2023, and analyzing potential risk areas along the Kuala Terengganu to Marang coastline. The method for determining the beach profile in this study involves using Google Earth Pro to extract beach profile conditions, while a coastal slope estimation algorithm will be employed for detailed in-situ analysis. Producing a Potential Risk Area Map will help analyze representations of beach profiles. Five significant coasts, namely Pantai Teluk Ketapang, Pantai Seberang Takir, Pantai Batu Buruk, Pantai Rusila, and Pantai Rhu Rendang, have been classified as experiencing coastal erosion problems, which significantly impact social, environmental, and economic activities along this coastline. From an initial survey of the Kuala Terengganu to Marang beach, most of the area has a flat and sandy profile, making it suitable for this application. Additionally, we found this method reliable for producing accurate slope profiles along identified areas of the selected Terengganu coastline. The findings may indicate valuable information for coastal management and planning, aiding in the mitigation of dangers associated with monsoonal coastline dynamics.

Keywords: Beach profile; Terengganu coastline; Coastal erosion; Beach Nourishment; Coastal slope estimation.

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