

RESEARCH ROADMAP

LABORATORY OF SURVEYING AND CADASTRE

GEOMATICS ENGINEERING - FTSPK ITS

	2020	2021	2022	2023	2024
Surveying			Development of 3D laser scanning and modeling		
			Ground control survey for tide survey, UAV survey, etc. including for point shift		
			Land subsidence monitoring and modeling by utilizing GNSS technology, including the design of low cost prototype survey equipment		
			Development of activities related to Area Boundary Mapping, Engineering Surveying (Plan Surveying), including the design of roads with horizontal curves		
Cadastre			Cadastre 3D development		
		Utilization of Information Technology in geospasial data acquisition for the Marin Cadastre Database System	Development of Marine Space by presenting it in a Marine Cadastre Map with 3-D Visualization		
	Land value and land property research for land implementation in Indonesia	Analyzing Land Value and Land Property / Real Estate / Flats by developing a Land Information System	Implementing some Land Value Modeling Algorithms in the Environment and Urban Development zone		

RESEARCH / PENELITIAN

Surveying

- 1 Development of 3D laser scanning and modeling**

Digital Twin - Basic: Pemodelan 3D Candi-Candi di Trowulan (Tahun 2022 - Rencana Pengajuan Proposal) --> Sesuai dengan roadmap Pusat Penelitian Sains Dan Teknologi Kelautan-Kebumian bagian *Spatial Modelling no.2 Tahun 2022 Development of high-resolution camera-based geovisualization of spatial data techniques to build Augmented Reality, including for historical traces, Virtual reality reconstruction of Zaman Airlangga Beach*

2 Land subsidence monitoring and modeling by utilizing GNSS technology, including the design of low cost prototype survey equipment

Low cost GNSS (Tahun 2021/2022 - Telah terlaksana)

Aplikasi Geotagging (Tahun 2021/2022 - Telah terlaksana)

Receiver Smart Geo-PD ITS (Tahun 2021/2022 - Telah terlaksana)

3 Development of activities related to Area Boundary Mapping, Engineering Surveying (Plan Surveying), including the design of roads with horizontal curves

PEMUTAKHIRAN DATA BATAS WILAYAH KELURAHAN MENGGUNAKAN METODE PEMETAAN PARTISIPATIF SEBAGAI UPAYA MEMINIMALKAN PERMASALAHAN PENGELOLAAN WILAYAH Lokasi: Kelurahan Sambikerep, Kecamatan Sambikerep, Kota Surabaya, Jawa Timur (Tahun 2022 - Pengajuan Proposal) --> Sesuai dengan roadmap Pusat Penelitian Sains Dan Teknologi Kelautan-Kebumian bagian Spatial Modelling

Cadastre / Pertanahan

1 Cadastre 3D development

Pengelolaan Wilayah pesisir ditinjau dari sisi kadaster - Rencana 2022

2 Utilization of Information Technology in geospatial data acquisition for the Marin Cadastre Database System

Development of Marine Space by presenting it in a Marine Cadastre Map with 3-D Visualization

Land administration analysis related to the acquisition of spatial data for marine cadastre and land cadastre - Rencana 2023

3 Land value and land property research for land implementation in Indonesia

Analyzing Land Value and Land Property / Real Estate / Flats by developing a Land Information System

Implementing some Land Value Modeling Algorithms in the Environment and Urban Development zone

Land value analysis and land property correlation with infrastructure development - Rencana 2024