



RG UVAC

(Underwater Vehicle and Communication)

RG ASIK

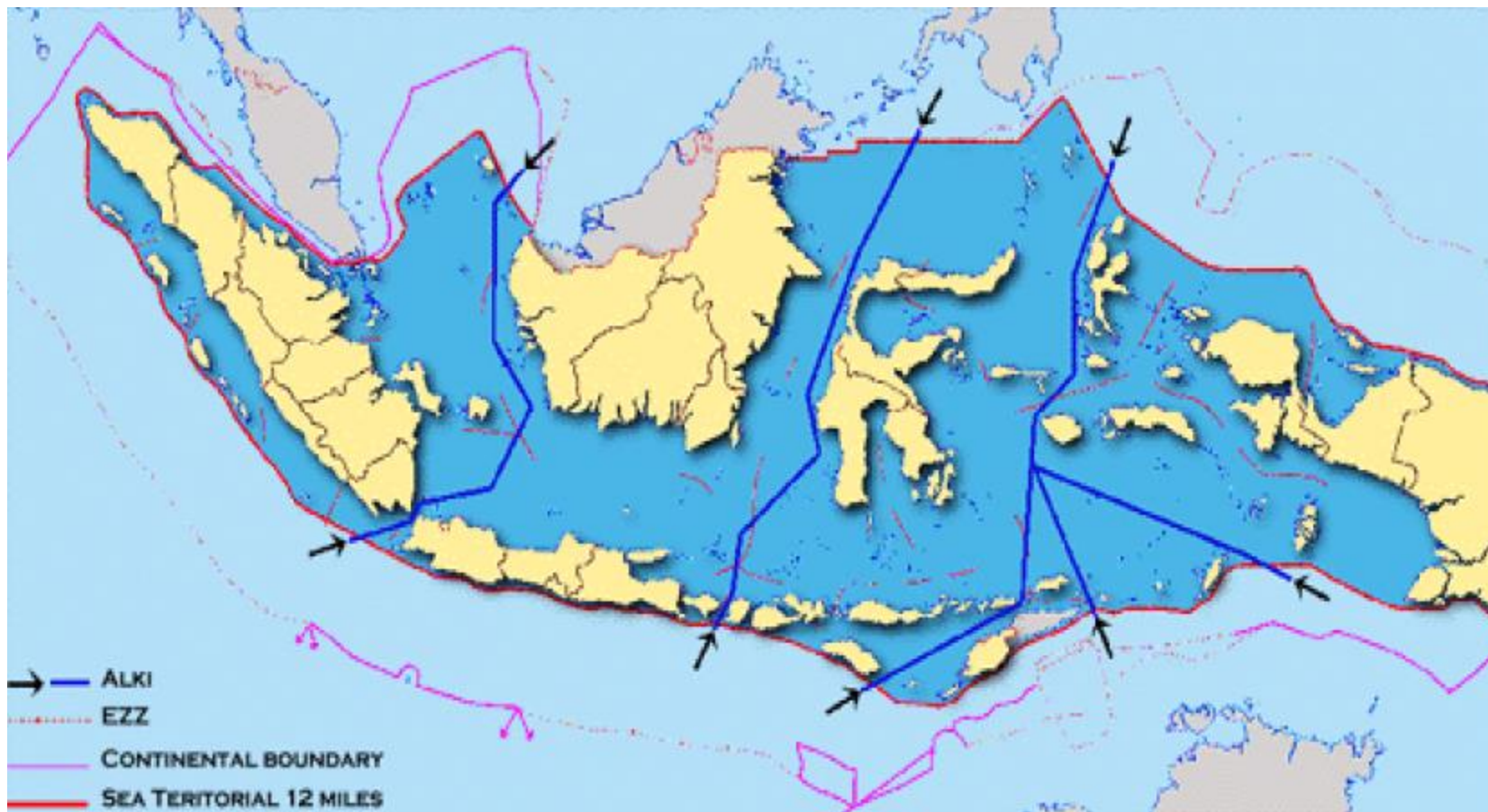
(Acoustic, Semantic, Intelligent and Knowledge)

Nama Lama 2013-2022

Framework & Roadmap Penelitian (2023-2033)

Hotel Surya, Prigen, Desember 2022

BACKGROUND RG UVAC



BACKGROUND RG UVAC

Berbasis Autonomous Vehicle dg latar belakang:

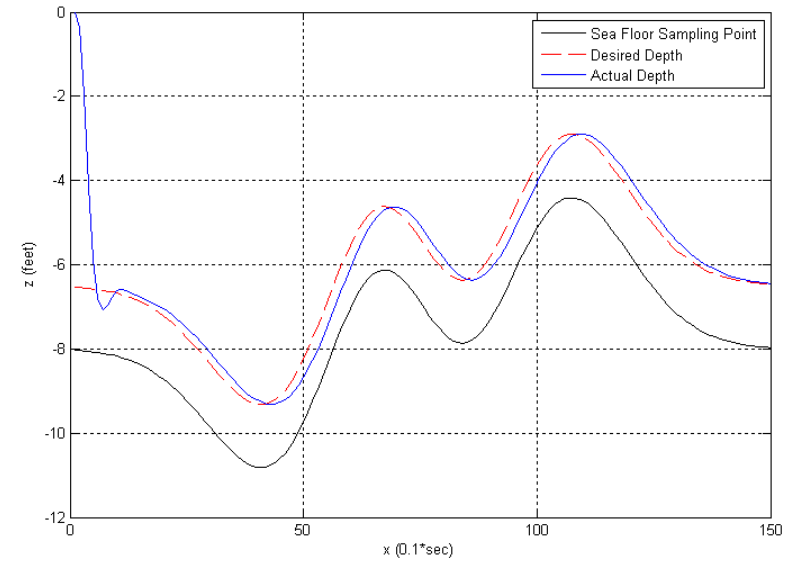
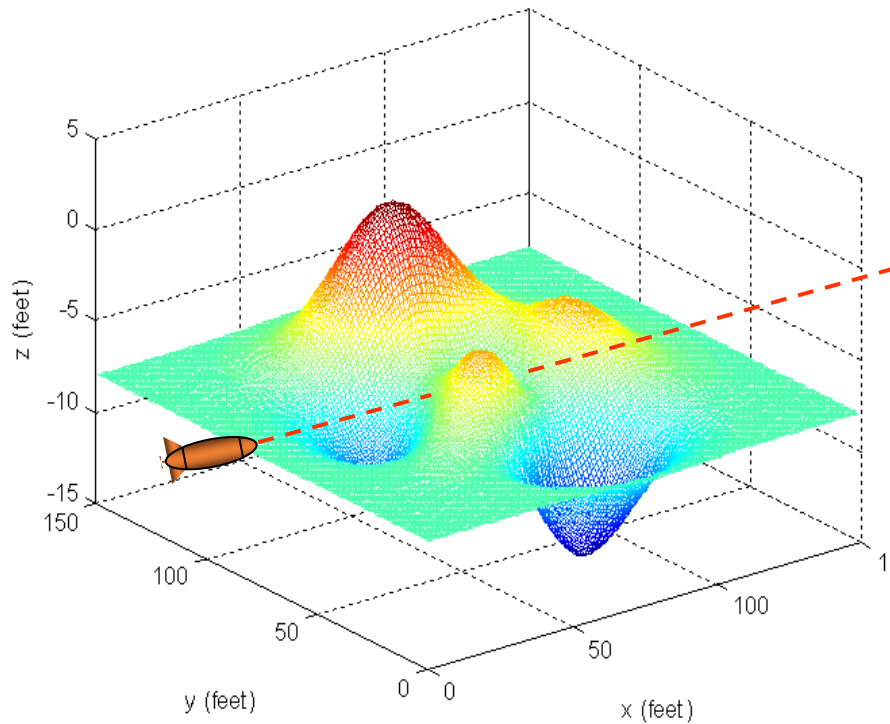
1. Indonesia adalah negara maritime, dengan 2/3 wilayahnya adalah laut
2. Memperkuat penguasaan teknologi wahana laut
3. Meneliti Autonomous Underwater Vehicle dengan kemampuan siluman
4. Membuat material RAM, remote control,, actuator, dan subsistem yang lain.

ANGGOTA PERIODE AWAL 2013-2018



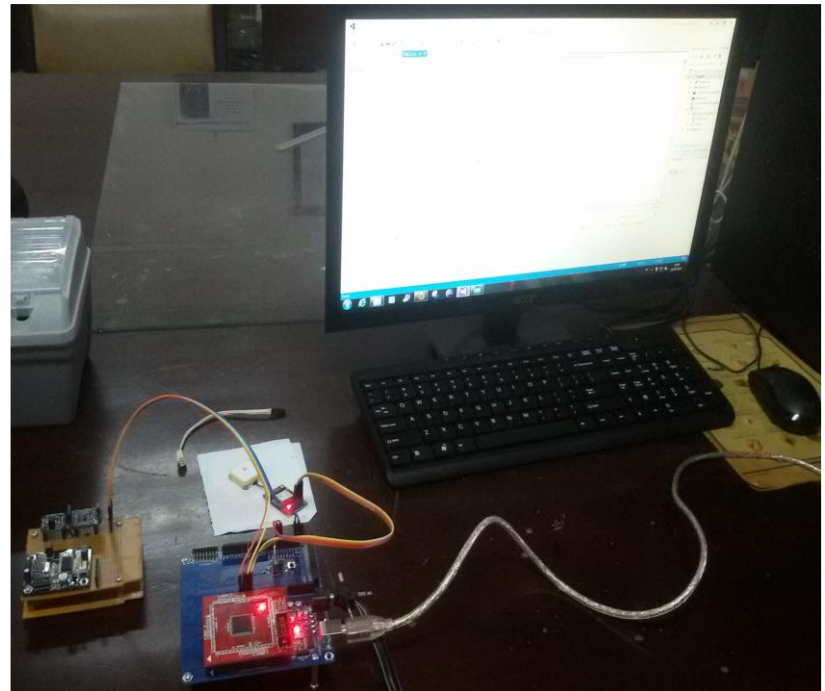
RISET PERIODE AWAL 2013-2018

Guidance and Control System

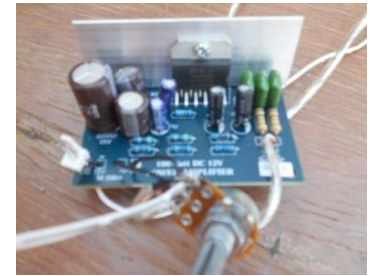
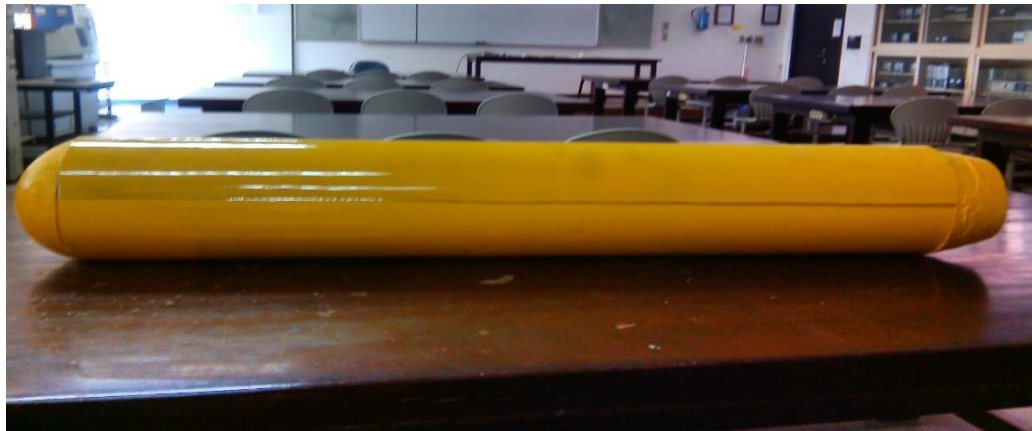
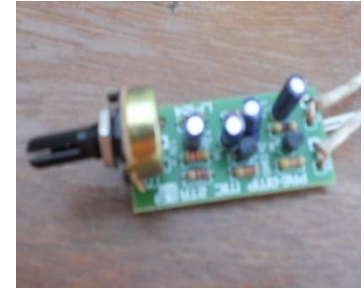
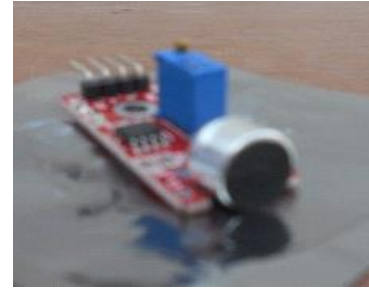
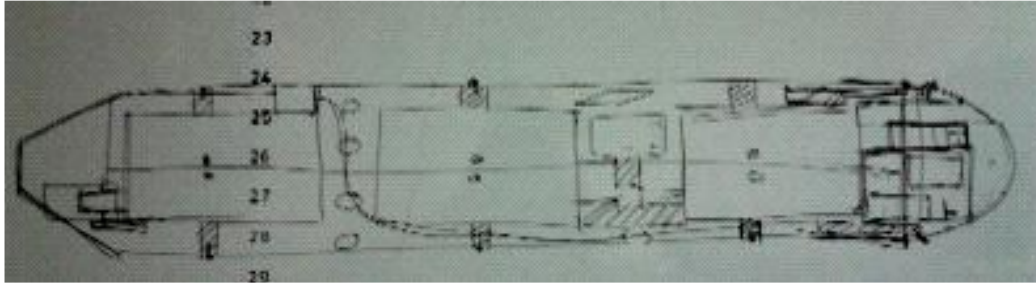


RISET PERIODE AWAL 2013-2018

Automatic Docking and Balancing



LUARAN PERIODE AWAL 2013-2018



LUARAN PERIODE AWAL 2013-2018

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OCP based decentralized data fusion for Autonomous Underwater Vehicles Back to Results

Publisher: IEEE Cite This PDF

Nanang Syahrani [All Authors](#)

85
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Text Views

Abstract

Abstract:
In this paper, an online decentralized multisensor data fusion algorithm facilitated by middleware networked using CORBA event channel is proposed, in order to deal with simplifying problem in sensor registration and fusion for vehicle state estimation. The networked based navigation concept for Autonomous Underwater Vehicle (AUV) using several sensors is presented. A simulation of various application scenarios are considered by choosing several parameters of UKF, i.e. weighting constant for sigma points and square root matrix. Normalized mean-square error (MSE) of Monte Carlo simulation are computed and presented in the simulation results. Furthermore, the middleware infrastructure based on...

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[Bathymetry and Atomic Gravimetry Sensor Fusion for Autonomous Underwater Vehicle](#)
2021 IEEE 24th International Conference

Document Sections
I. INTRODUCTION
II. Filtering Model

	Performance evaluation of 5.9GHz DSRC for positioning and docking system of AUV Creator: Syahrani N. Proceedings - 2016 International Electronics Symposium, IES 2016	Conference Proceedin publish at 2017
	Characteristics of RAMS coatings using non-ferrous materials for AUVs Creator: Syahrani N. Proceedings - 2016 International Electronics Symposium, IES 2016	Conference Proceedin publish at 2017
	Trajectory tracking for AUV with constant velocity Creator: Syahrani N. Proceedings - 2015 International Electronics Symposium: Emerging Technology in Electronic and Inform	Conference Proceedin publish at 2016
	Data acquisition and processing of movement and position for AUVs with experiment results Creator: Syahrani N. ICTACEE 2015 - 2nd International Conference on Information Technology, Computer, and Electrical Eng	Conference Proceedin publish at 2016
	Performance evaluation of VANET docking guidance for AUV using DSRC Creator: Syahrani N. ICAMIMIA 2015 - International Conference on Advanced Mechatronics, Intelligent Manufacture, and Indu	Conference Proceedin publish at 2016
	OCP based decentralized data fusion for Autonomous Underwater Vehicles Creator: Syahrani N. Proceedings - 2013 International Conference on Information Technology and Electrical Engineering: *I	Conference Proceedin publish at 2013
	An autonomous underwater vehicle simulation using linear quadratic servo based on open control platform Creator: Syahrani N.	Journal publish at 2012

Innalillahi wa'innailaihi roji'un
31 Januari 2019, jam 8 pagi

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Ir. R. Henggar Budiman, MT.

(Dosen Teknik Telekomunikasi)

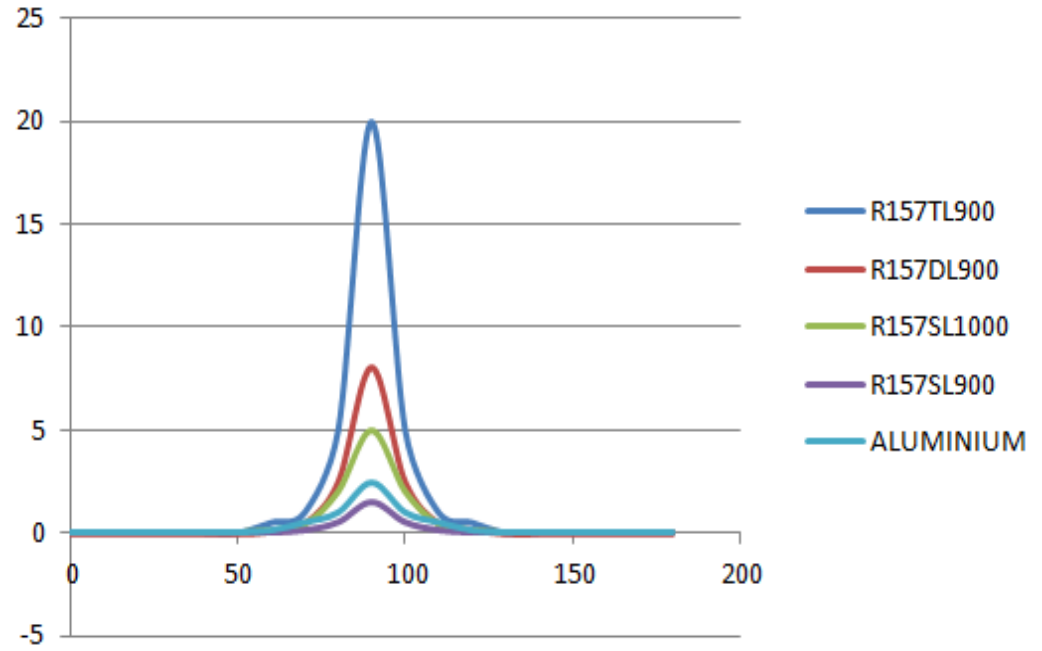
Selamat jalan

Semoga mendapatkan tempat terbaik di sisi-Nya

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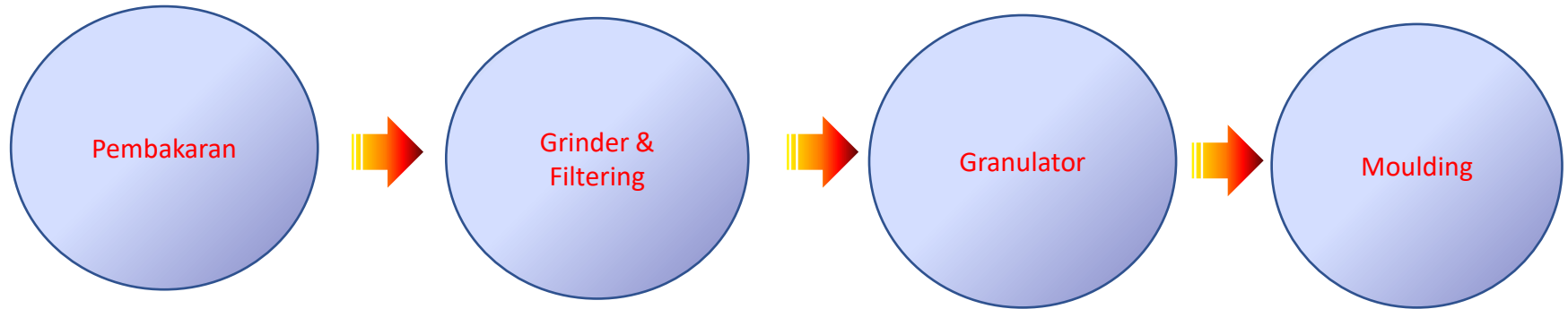


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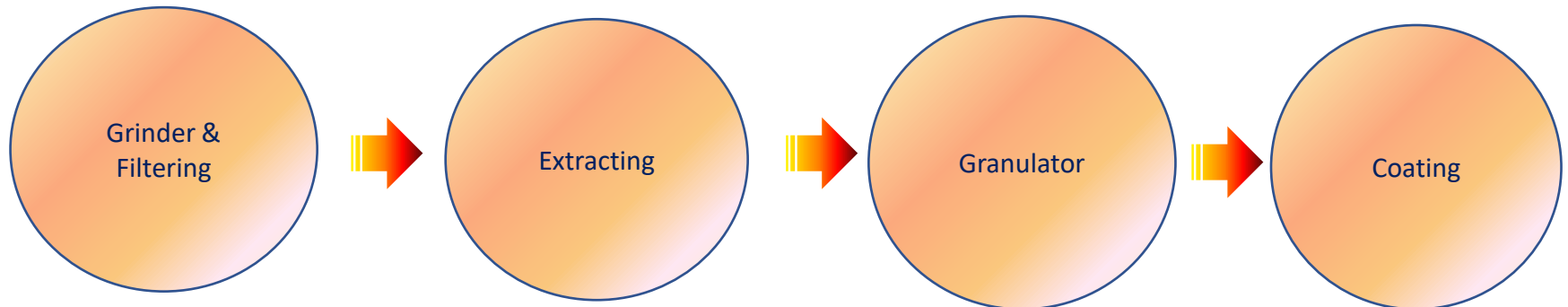


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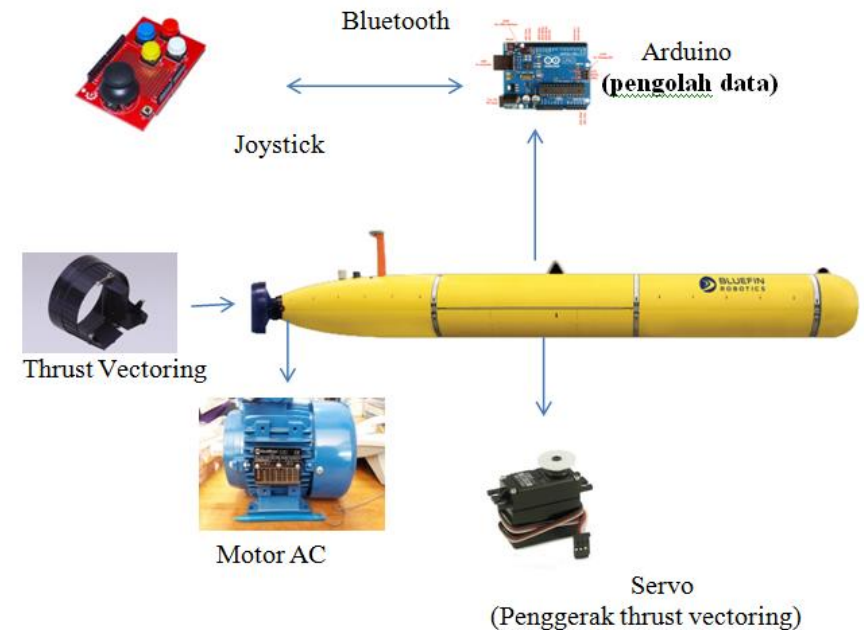
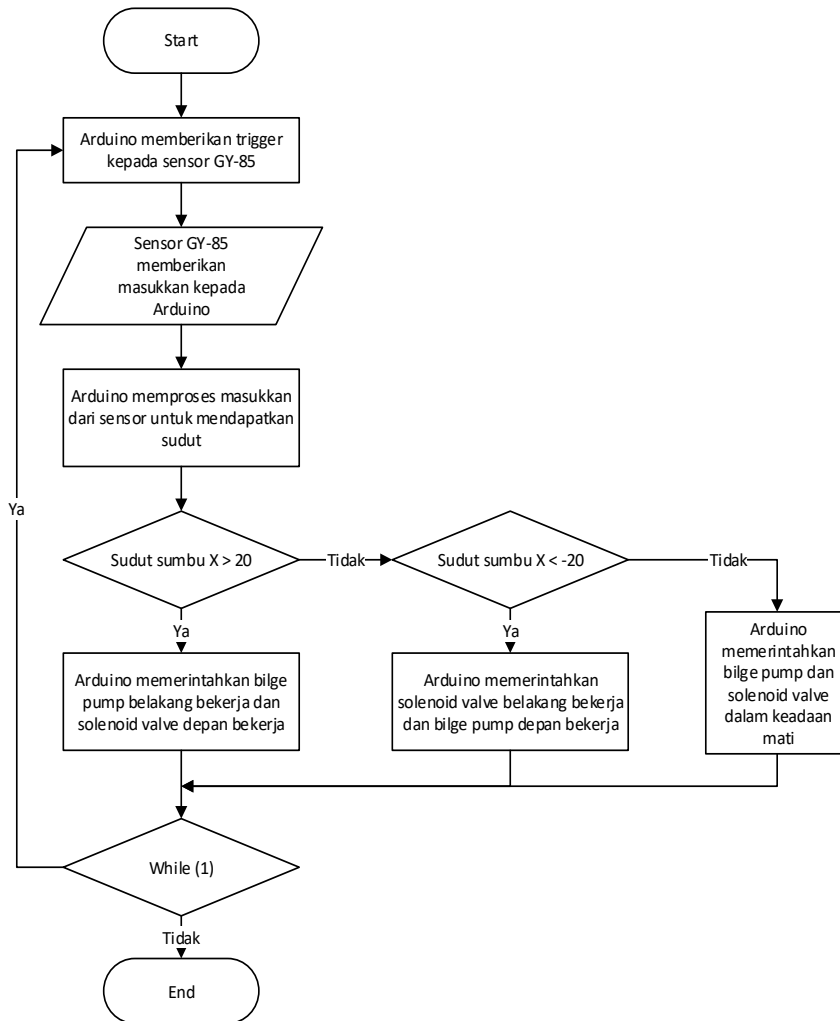
Nonferrous Material



Ferrous Material



LUARAN PERIODE MENENGAH 2019-2022



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Depth Control Simulation of Autonomous Underwater Vehicle with Communication Delay

Publisher: IEEE Cite This PDF

Nanang Syahrani ; Hari Wahjuningrat Suparno ; Young Bong Seo ; Jae Weon Choi All Authors

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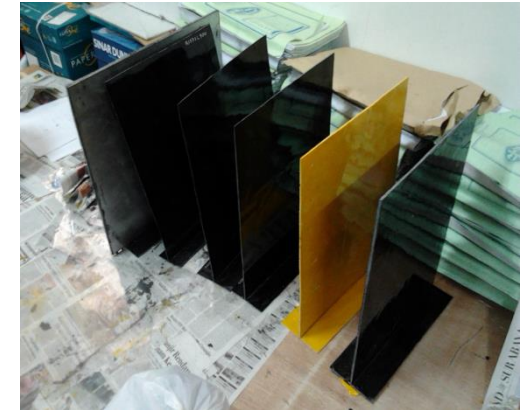
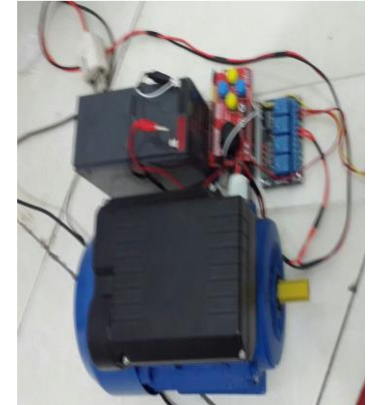
Abstract	Abstract:	More Like This
Document Sections I. INTRODUCTION	This paper presents a depth control simulation of autonomous underwater vehicle (AUV) using a decentralized system approach called the Open Control Platform (OCP). We briefly discuss various delay time phenomena from the actuator model, network latency, and computational time processing, which are estimated using the estimated delay time reflected in the system design infrastructure. The proposed structure consists of the optimal regulator equation with the delay results	Actuator Saturation Compensation for Fast Tool Servo Systems With Time Delays IEEE Access

	IDEA Encryption System for Data Acquisition on Autonomous Underwater Vehicle Creator: Syahrani N. IES 2022 - 2022 International Electronics Symposium: Energy Development for Climate Change Solution	Conference Proceedin publish at 2022
	Depth Control Simulation of Autonomous Underwater Vehicle with Communication Delay Creator: Syahrani N. 2019 International Conference on Advanced Mechatronics, Intelligent Manufacture and Industrial Autom	Conference Proceedin publish at 2019
	Design and implementation of node gateway with MQTT and CoAP protocol for IoT applications Creator: Zainudin A. 2019 4th International Conference on Information Technology, Information Systems and Electrical Engi	Conference Proceedin publish at 2019

SKEMA PENELITIAN 2013-2022

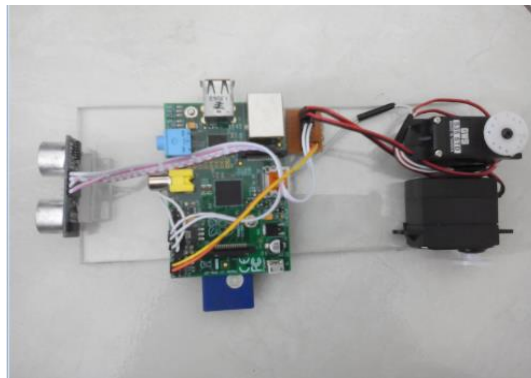
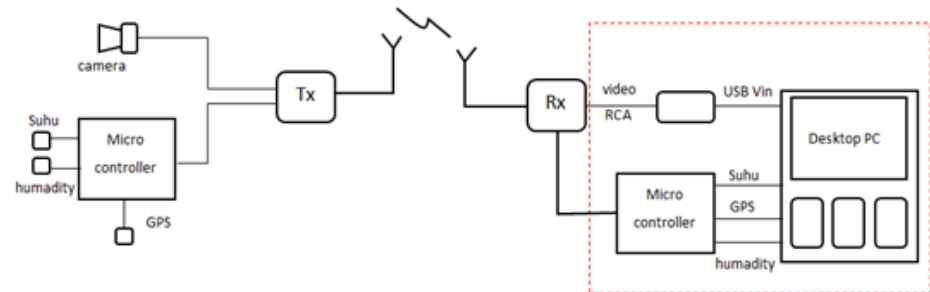
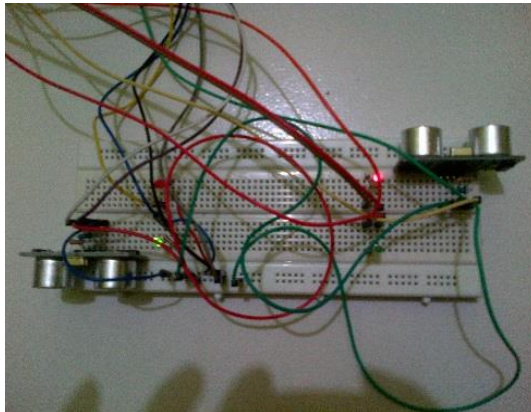
TAHUN	JUDUL PENELITIAN	SKEMA
2014	Rancang Bangun AUV Siluman: Aspek Radar Cross Section dan Acoustic Signature	Hibah Bersaing
2015	Rancang Bangun Hybrid Waterjet Dengan Thrust Vectoring Untuk AUV Siluman	INSINAs
2016	Rancang Bangun AUV Siluman: Karakteristik Coating RAMS Berbahan Non-Ferrous Materials	Hibah Bersaing
2017	Rancang Bangun AUV Siluman: Karakteristik RCS Pada Sistem Propulsi Hybrid Waterjet Menggunakan Multilayer Pasive RAMS	Penelitian Produk Terapan
2018	Rancang Bangun AUV Siluman: Karakteristik RCS Pada Sistem Propulsi Hybrid Waterjet Menggunakan Multilayer Pasive RAMS	Penelitian Produk Unggulan Perguruan Tinggi
2019	Rancang Bangun Manajemen Daya untuk Repeater Seluler Berbasis HAPS	Penelitian Lokal Tingkat 2
2022	Sistem Keamanan Data Telemetri Berbasis Enkripsi Idea Untuk Wahana Bawah Air Otonom	Penelitian Lokal Terapan

PROPERTI PENELITIAN 2013-2022



PROPERTI PENELITIAN 2013-2022

Automatic Obstacle Avoidance and Mission Control Station



kecepatan
kompas
suhu
kemiringan
GPS
Akselerasi-z
Akselerasi-y
Akselerasi-x

ROADMAP PENELITIAN



FRAMEWORK PENELITIAN 2023-2033

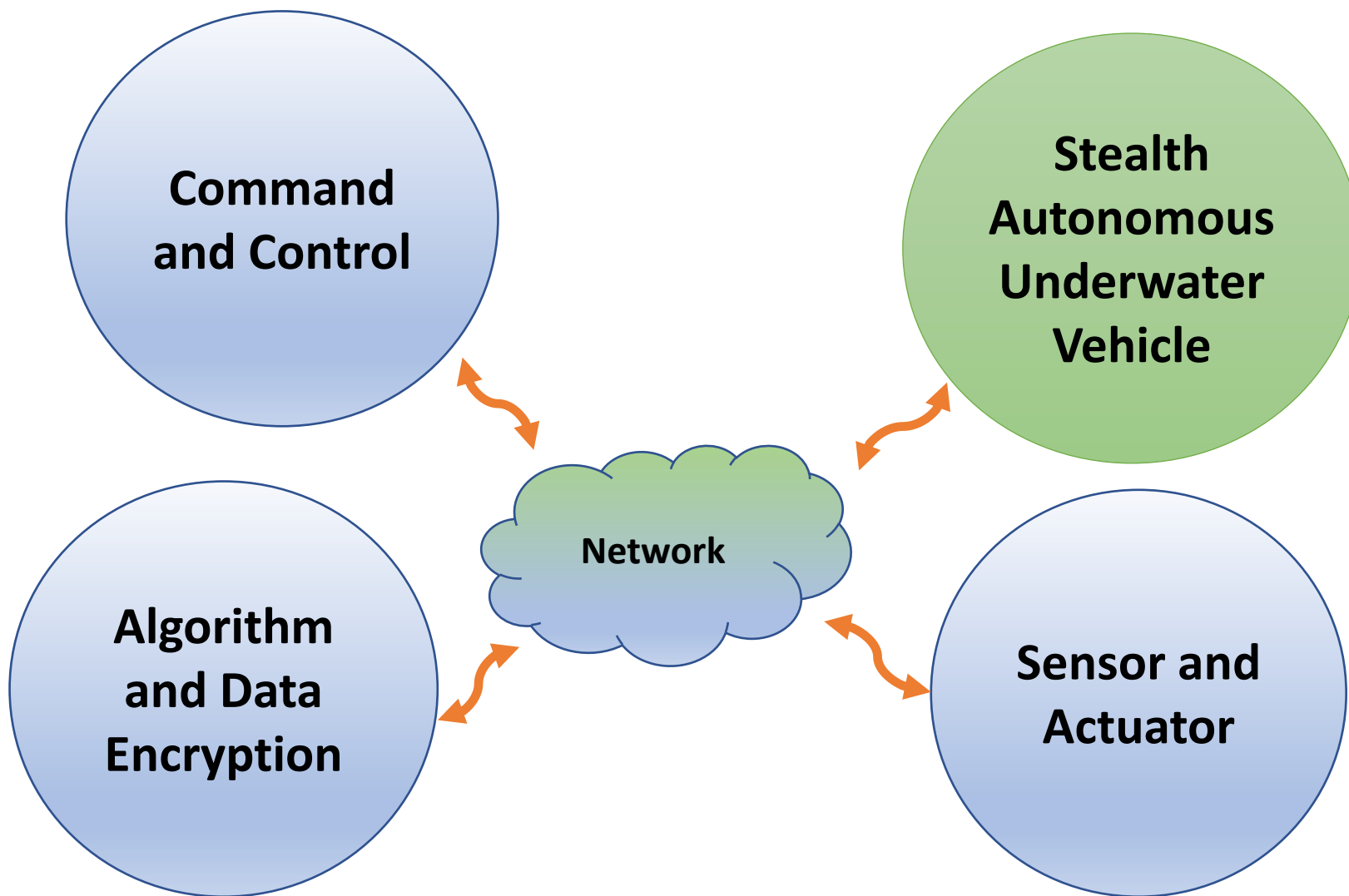
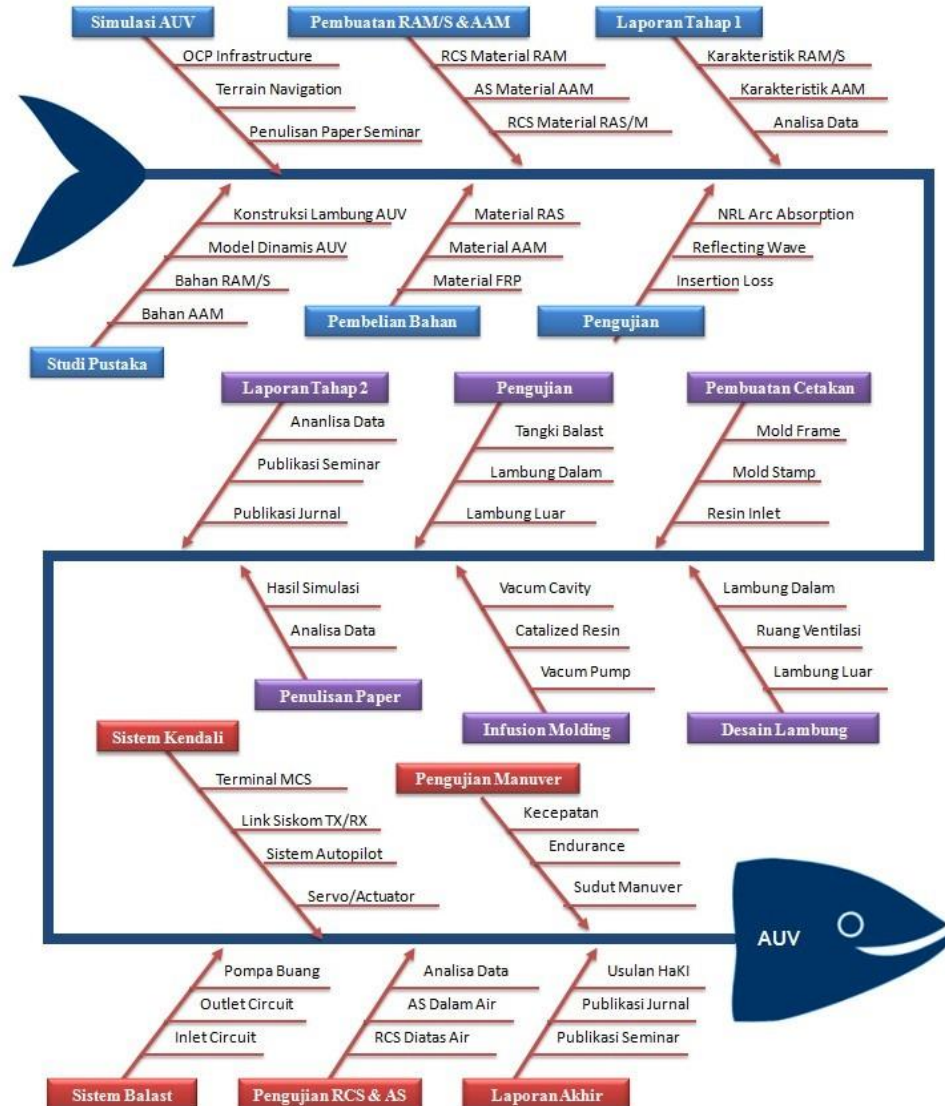


DIAGRAM PENELITIAN 2023-2033



Wacana Underwater Vehicle Sebagai:

1. Sarana Transpostasi
2. Pengiriman Logistik
3. Tanker BBM
4. Trasponder Komunikasi Laut
5. Ground Effect Drone

Terima Kasih