RG UVAC

(Underwater Vehicle and Communication)

RG ASIK

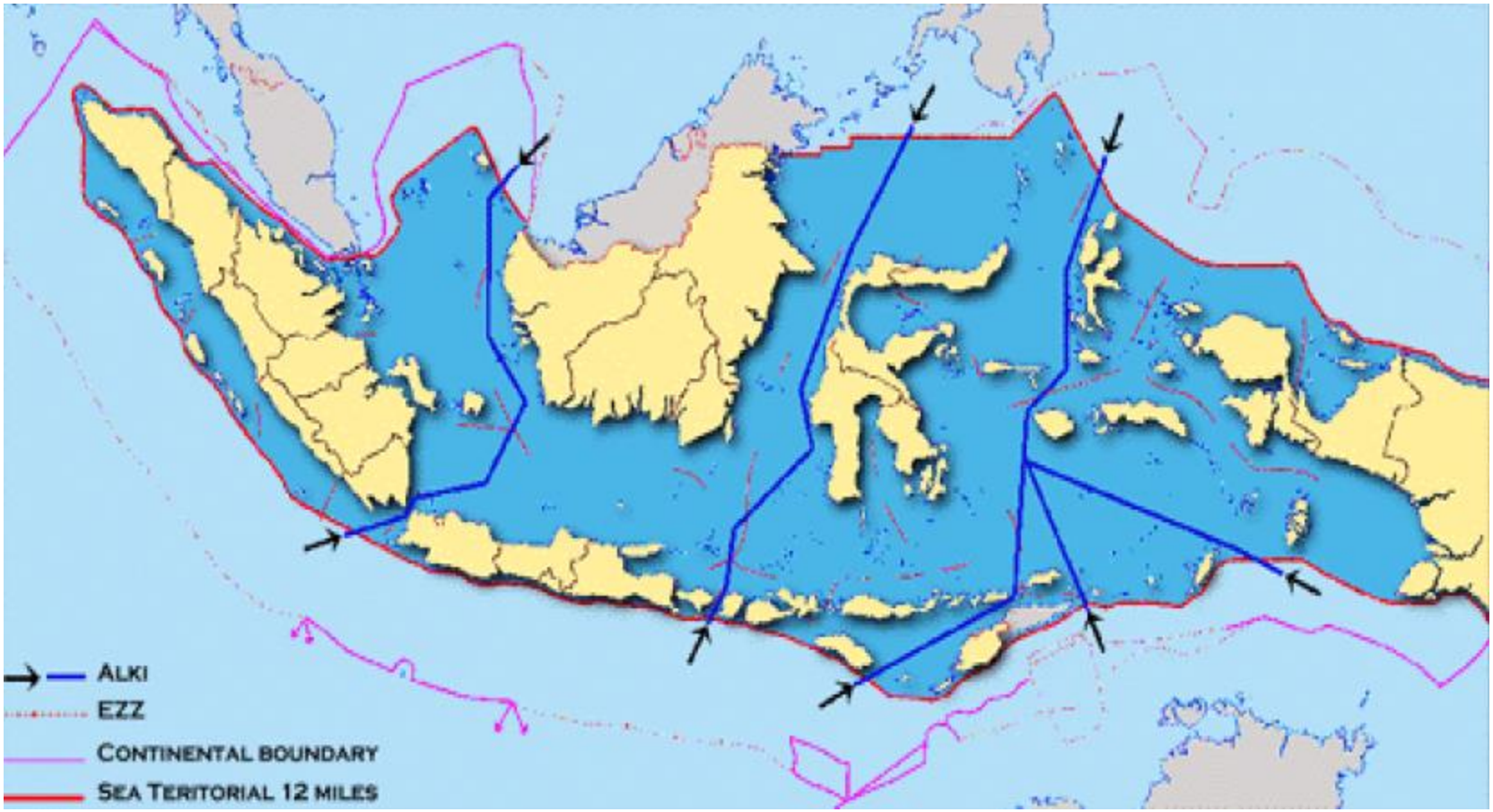
(Acoustic, Semantic, Intelligent and Knowledge)

Nama Lama 2013-2022

Framework & Roadmap Penelitian (2023-2033)

Hotel Surya, Prigen, Desember 2022

BACKGROUND RG UVAC



BACKGROUND RG UVAC

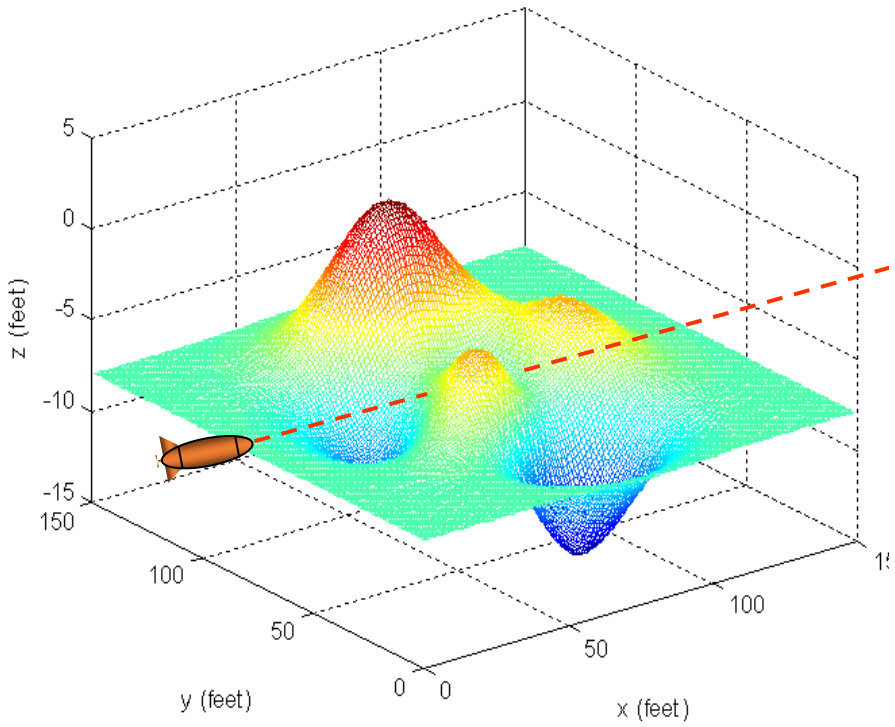
Berbasis Autonomous Vehicle dg latar belakang:

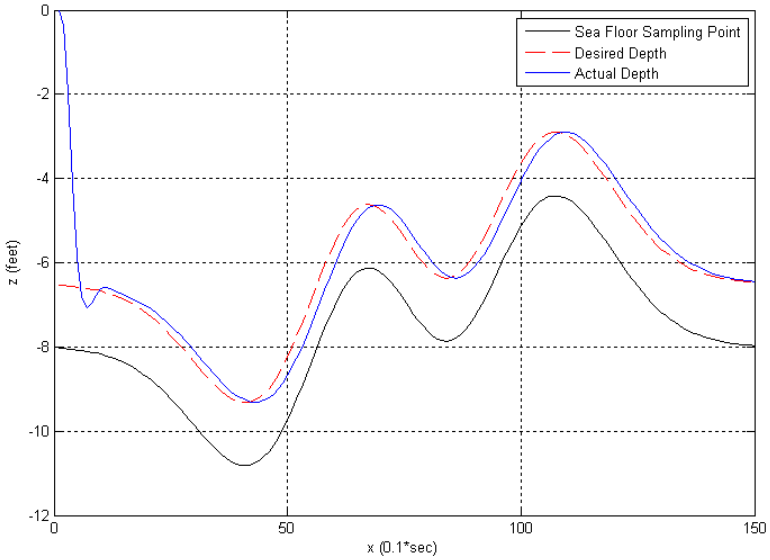
1. Indonesia adalah negara maritime, dengan 2/3 wilayahnya adalah laut
2. Memperkuat penguasaan teknologi wahana laut
3. Meneliti Autonomous Underwater Vehicle dengan kemampuan siluman
4. Membuat material RAM, remote control,, actuator, dan subsistem yang lain.

ANGGOTA PERIODE AWAL 2013-2018

RISET PERIODE AWAL 2013-2018

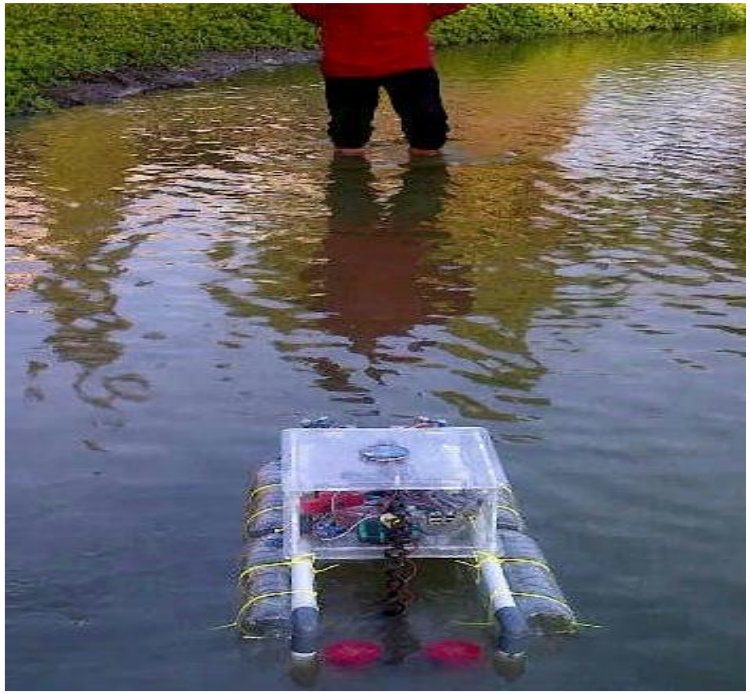
Guidance and Control System

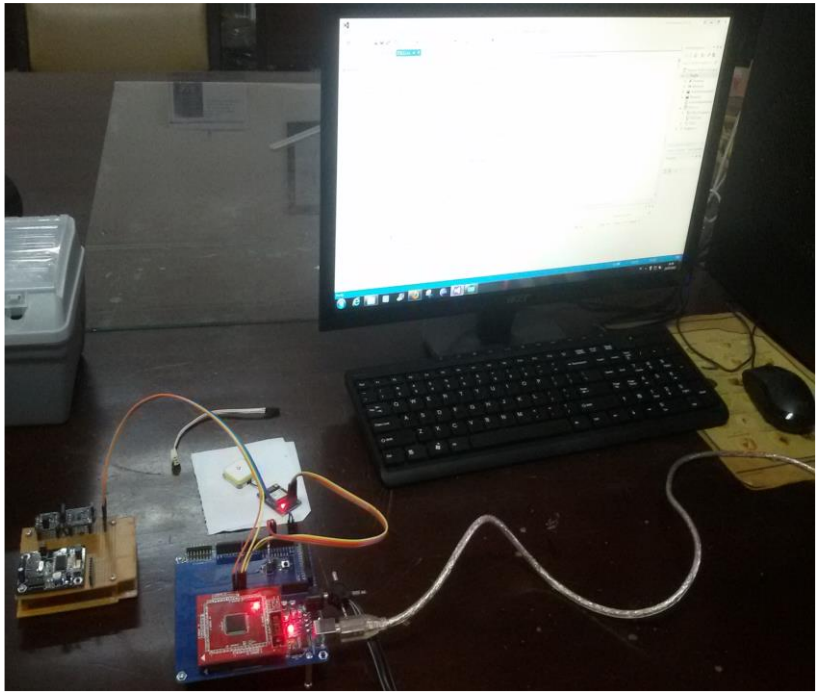




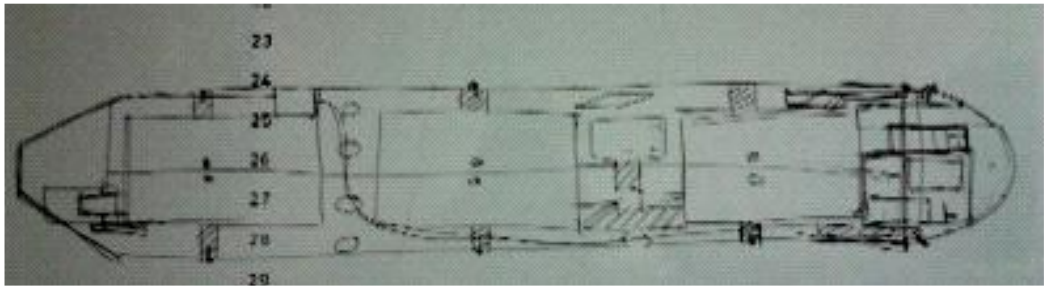
RISET PERIODE AWAL 2013-2018

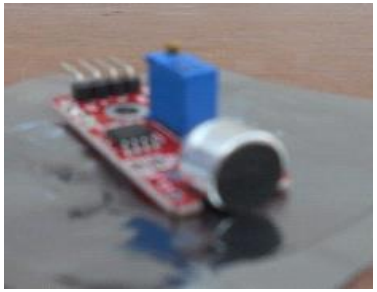
Automatic Docking and Balancing

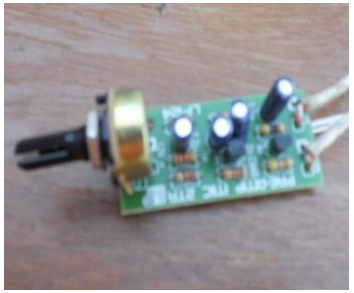


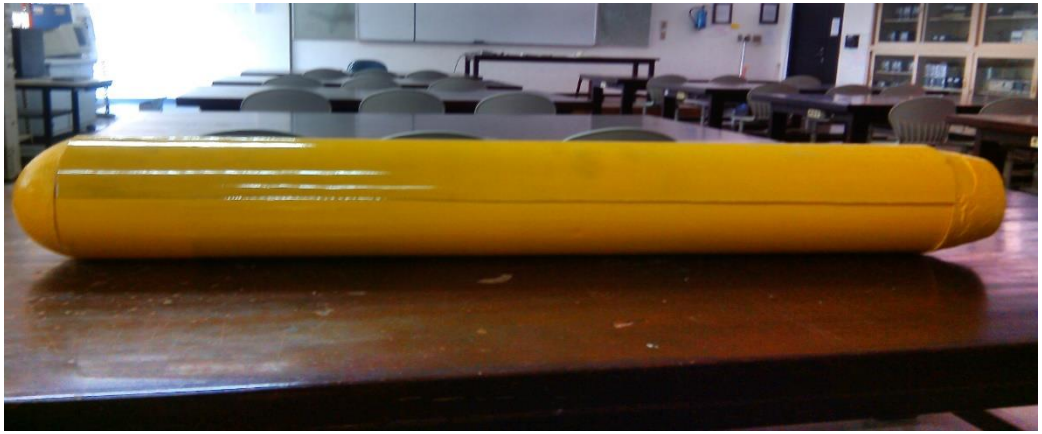


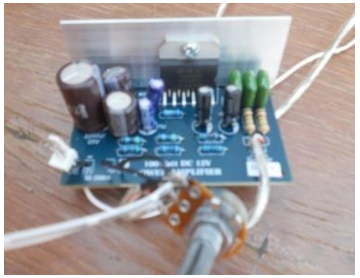
LUARAN PERIODE AWAL 2013-2018

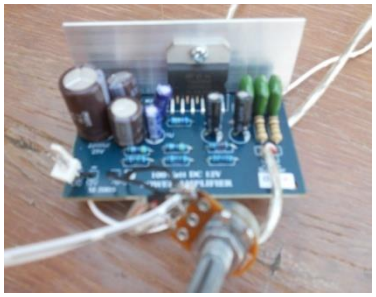












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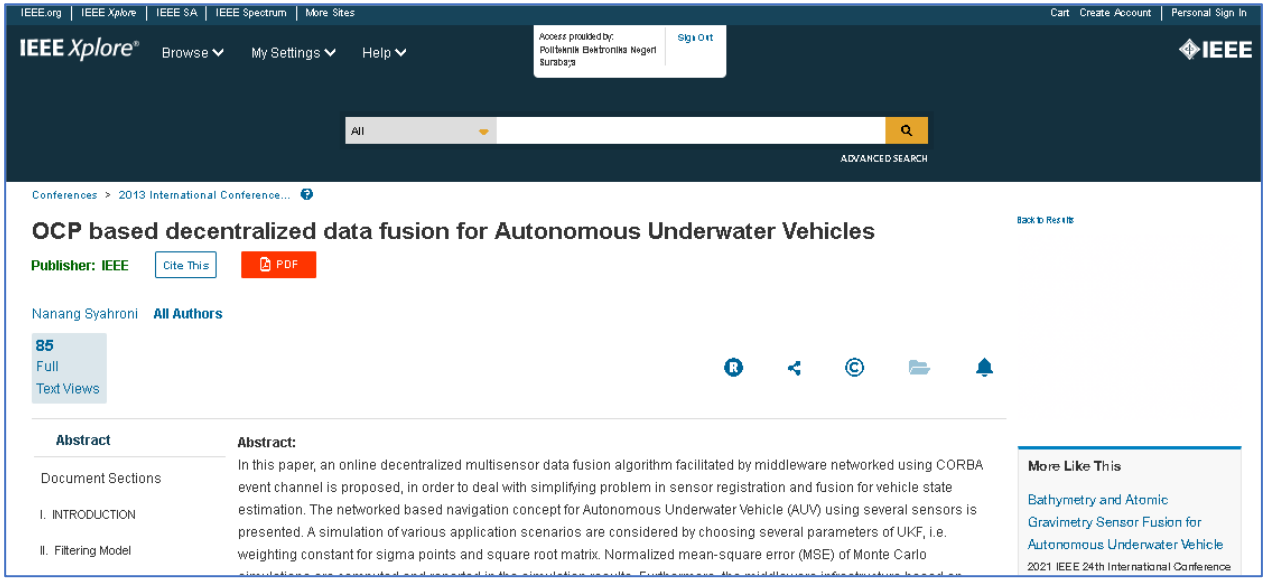
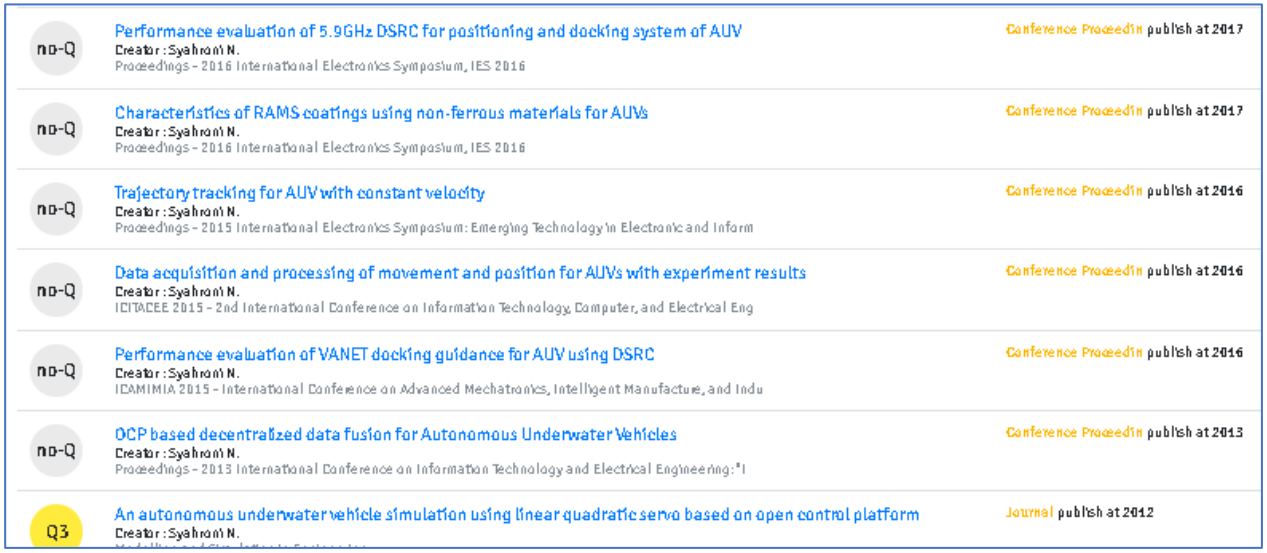
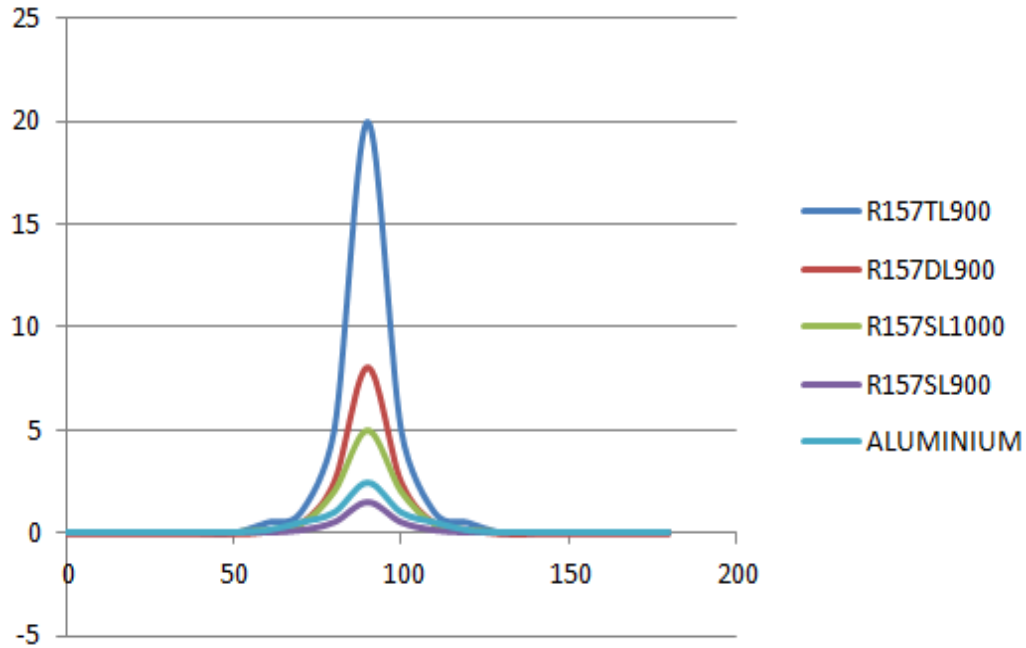




Innalillahi wa’innaillaihi roji’un
31 Januari 2019, jam 8 pagi

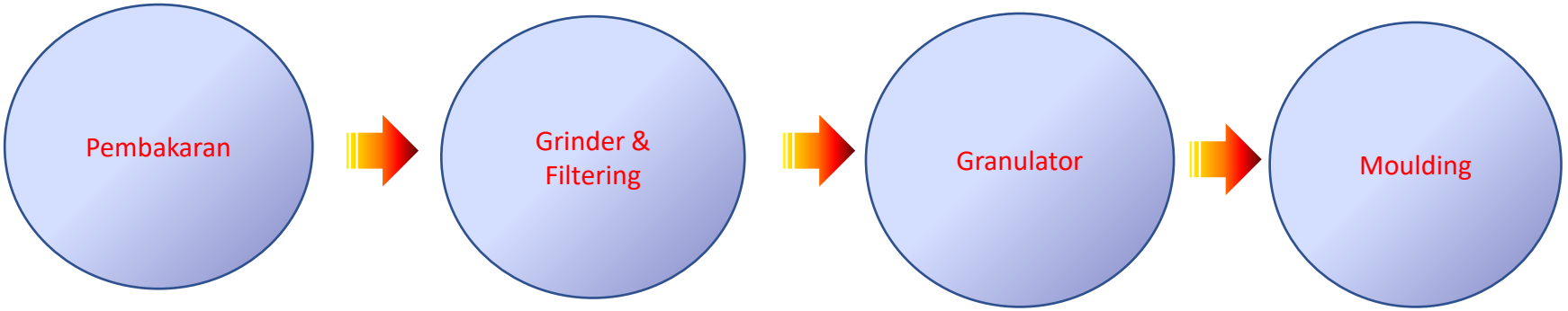
ANGGOTA PERIODE MENENGAH 2019-2022

RISET PERIODE MENENGAH 2018-2022

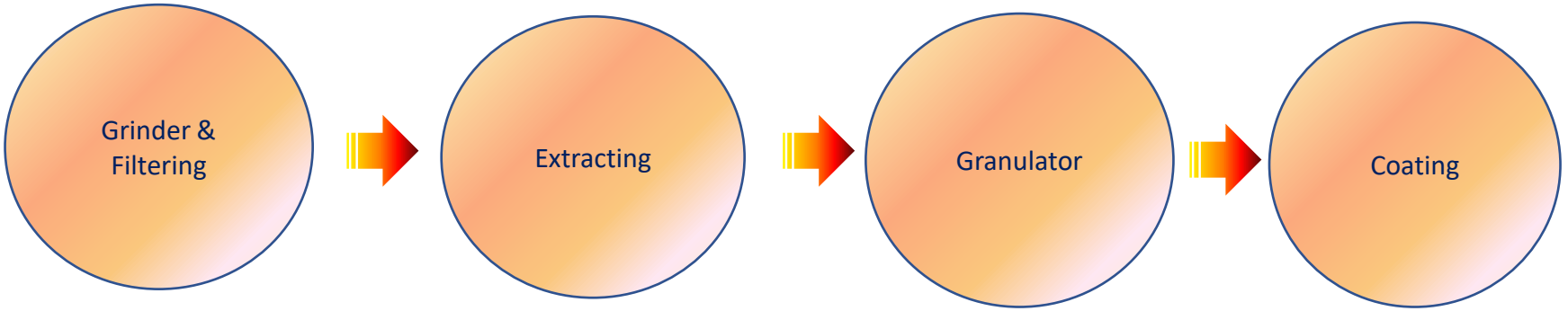


RISET PERIODE MENENGAH 2019-2022

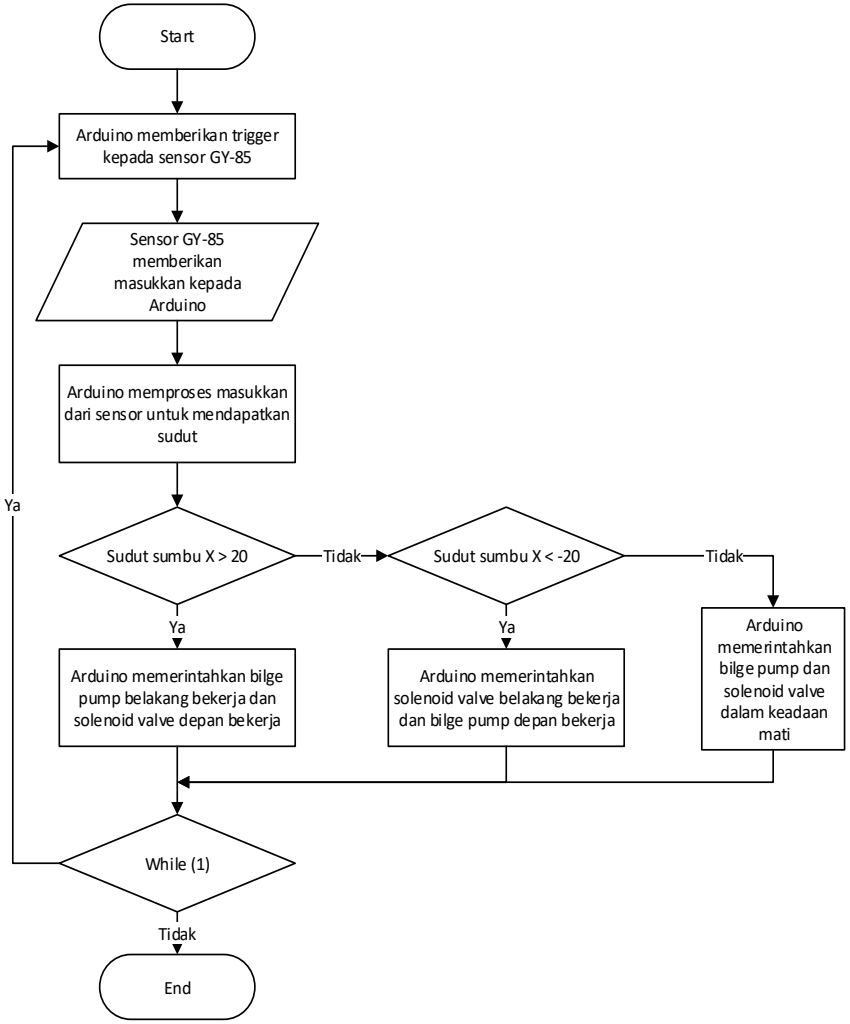
Nonferrous Material

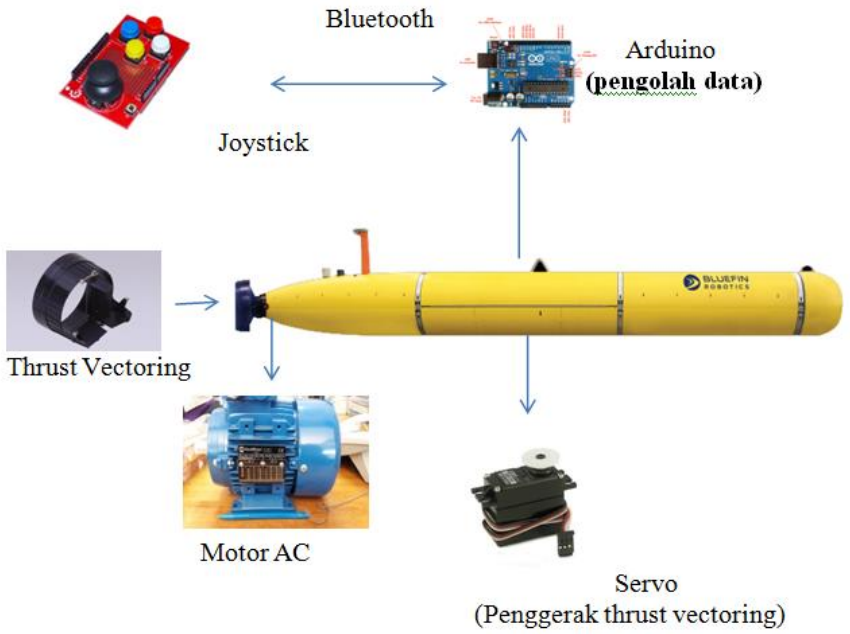


Ferrous Material

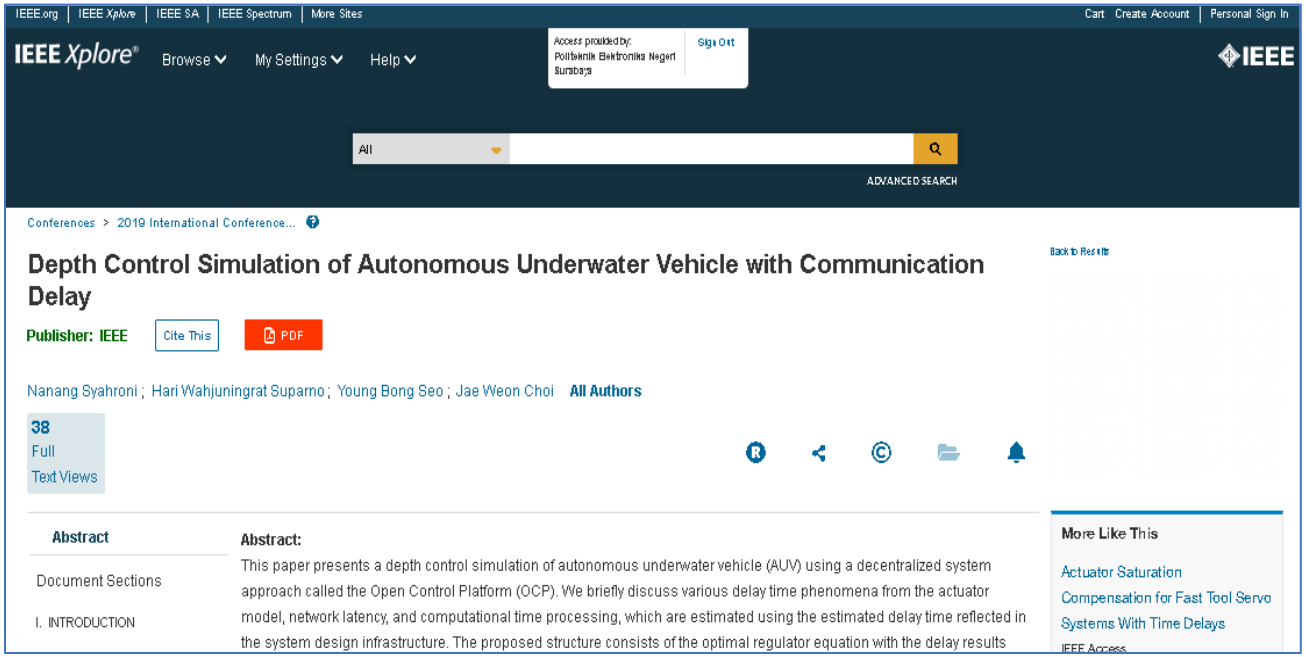


LUARAN PERIODE MENENGAH 2019-2022





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

38 Full Text Views

Abstract

Document Sections

I. INTRODUCTION

Abstract:

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

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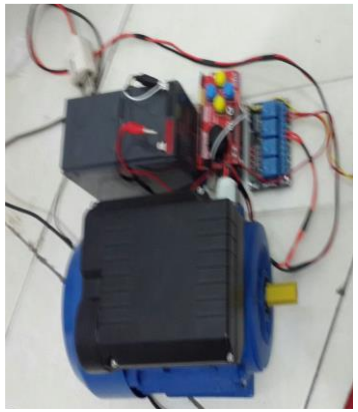
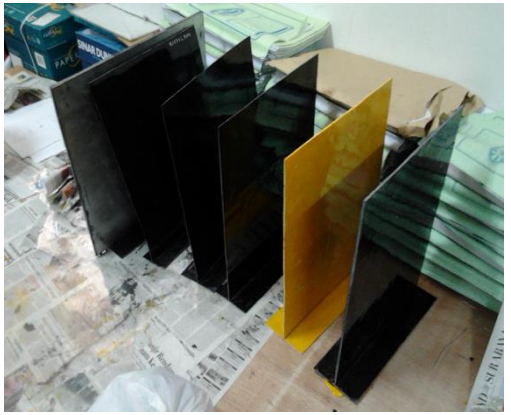
SKEMA PENELITIAN 2013-2022

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

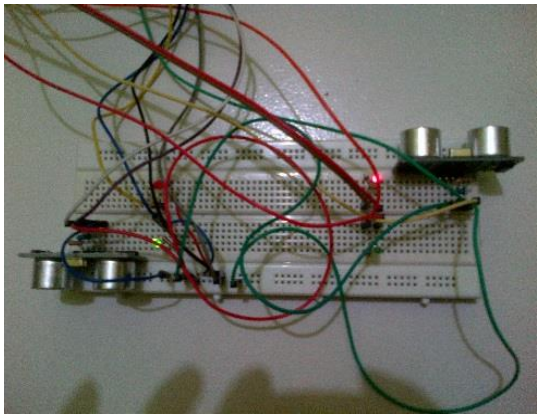
PROPERTI PENELITIAN 2013-2022

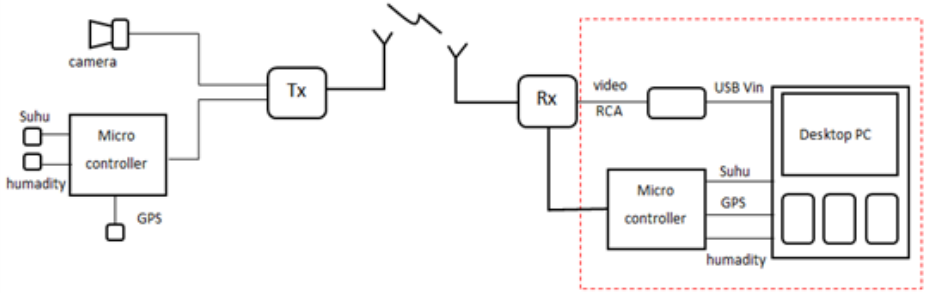


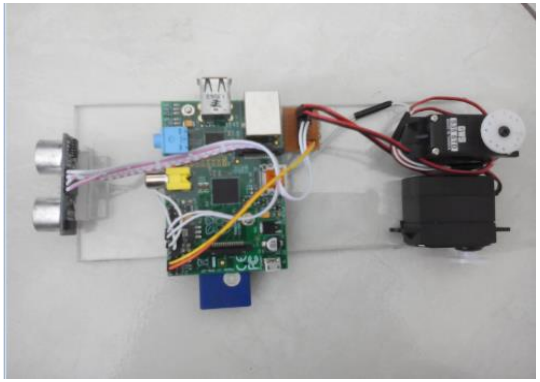


PROPERTI PENELITIAN 2013-2022

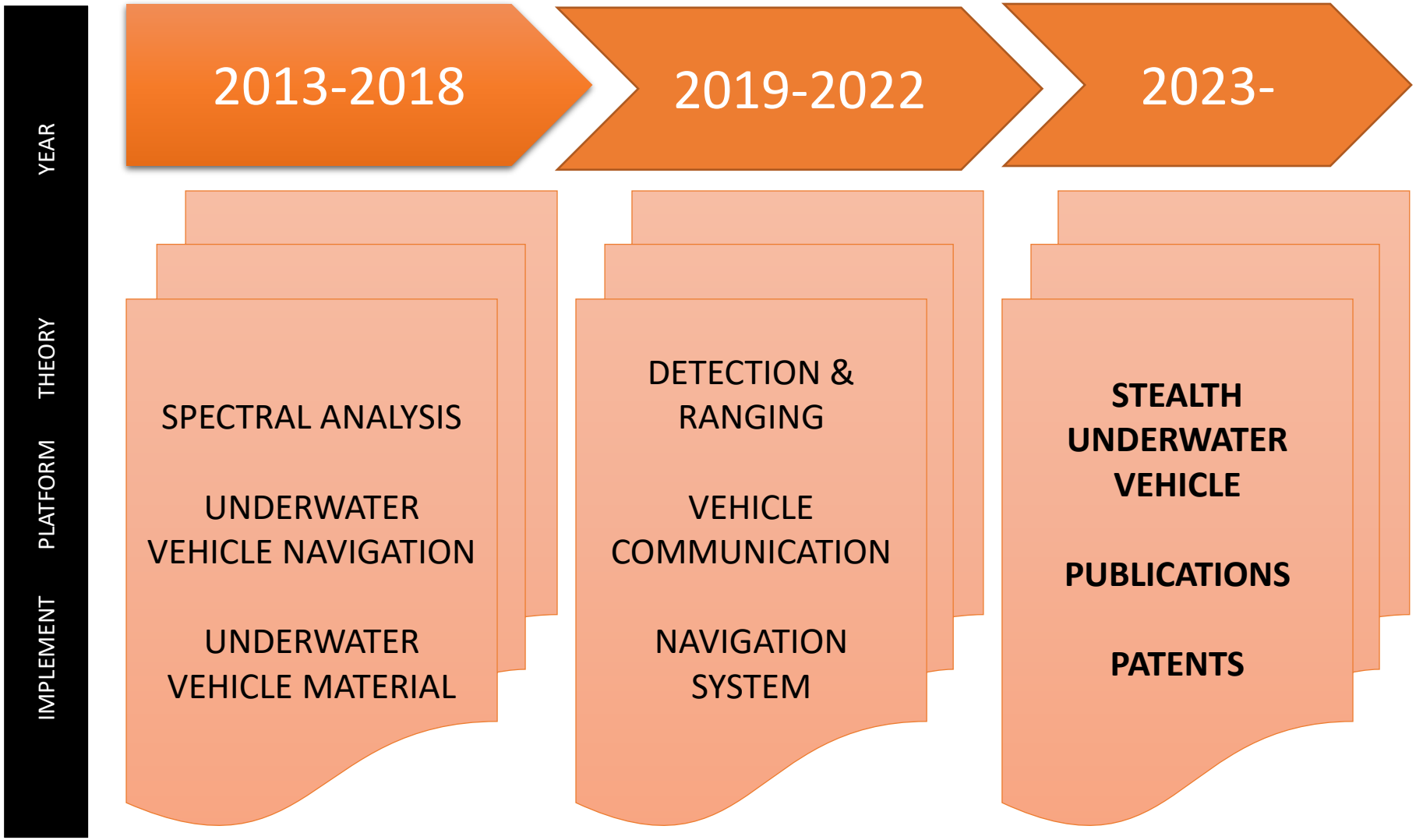
Automatic Obstacle Avoidance and Mission Control Station







ROADMAP PENELIAN



FRAMEWORK PENELITIAN 2023-2033

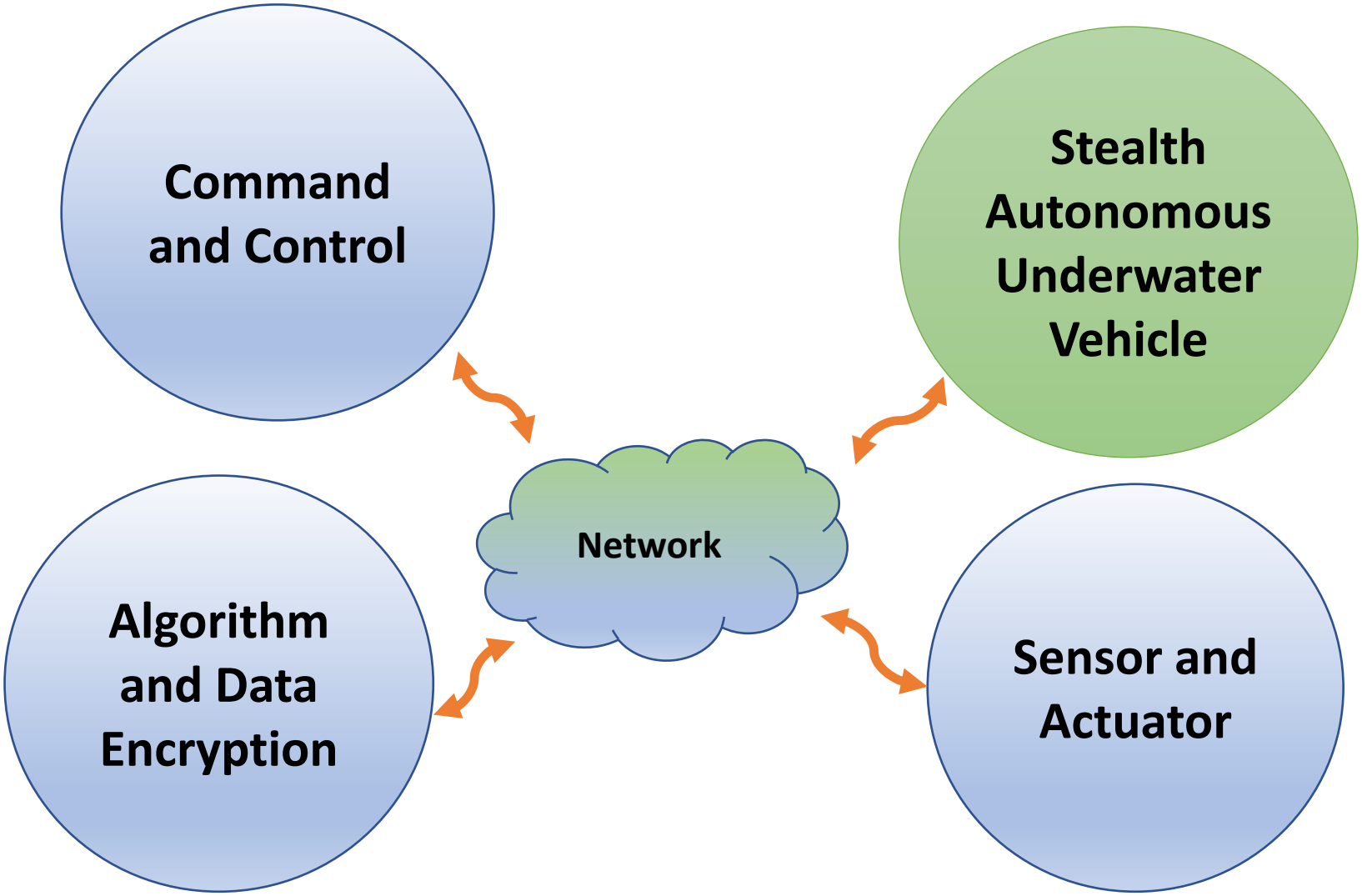
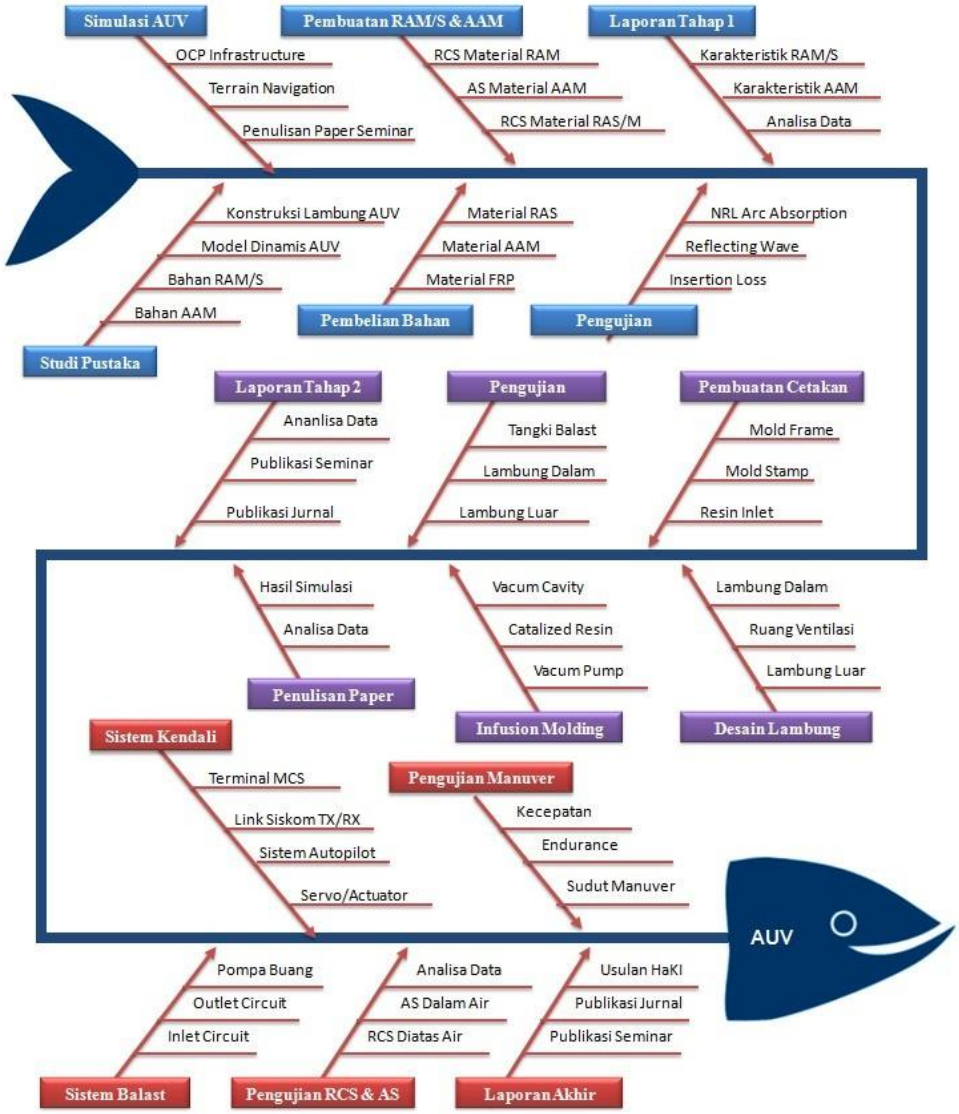


DIAGRAM PENELITIAN 2023-2033



RENCANA 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