Farrel Ardan Susilo
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Education

ISAE SUPAERO, France 2023 – 2025
Masters in aerospace engineering majoring in Embedded Systems
Main modules: control engineering, flight & ground loads, scientific computing, airworthiness, embedded systems, aviation & climate, algorithm and computing, information engineering, applied mathematics, flight dynamics, electromagnetics in avionics, applied aerodynamics.

Institut National des Sciences Appliquées Lyon, France 2020 – 2023
International bachelor's in mechanical, Material and Aerospace Engineering
In collaboration with ECAM Lyon and University of Strathclyde
Main modules: control engineering, static and dynamic analysis of kinematic models, gear mechanics, aero design, flight and spaceflight, turbines and motors, heat transfer, finite element analysis using Abaqus and ANSYS, material selection, composite materials and stress mechanics, thermodynamics and fluid mechanics.

Professional Experience

Mecalam SAS, France April 2023 – August 2023
Internship developer of numerical calculation tool for cylindrical gears
Developed new features to add gear tooth corrections to existing company software programmed in MATLAB. Wrote Visual Basic macro commands for CATIAv5. Lead validation process of the developed features through reference case studies.

Projects

Sensors and camera-based 3D obstacle avoidance for Aerial Robotic Vehicle 2023 – 2024
Project
Working on developing algorithm for sensor-based navigation for a prototype of an aerial robotic vehicle.

Hyperloop ISAE SUPAERO – Hardware, Software and Control Division 2023
Club project
Worked on writing a lookup control algorithm in C for levitation and thrust control. Working on implementing PWM with STM32F303RE microcontroller. Working on Wi-Fi communication algorithm between EF32 microcontrollers.

Designing of test rig of elastic grid couplings for CMD Gears 2022 – 2023
Group project in collaboration with CMD Gears, INSA Lyon research student and classmates
Designing a test rig for conducting static and dynamic tests of grid couplings.

Skills

Technical
Microsoft Office Suite, C, Python, HTML5, CSS, PHP, MATLAB, Simulink, Solid Edge, SolidWorks, CATIAv5, Abaqus, SQL, ANSYS, XFoil and Microsoft Access

Languages
Indonesian as a native language, English fluent TOEFL iBT and French advanced DELF B2