

EDUCATION

Doctor of Philosophy in Aerospace Engineering

Expected Aug 2029

Chosun University, Gwangju, Republic of Korea

Advisor: Assoc. Prof. Sunghun Jung, Department of Aerospace Engineering, Chosun University

Thesis: Robust and Adaptive Control of Air-Underwater Vehicle on Hovering, Cruising and Vertical Recovery modes

Master of Science in Control Engineering

Sep 2021

Adama science and technology University, Adama, Ethiopia

GPA3.91/4.0

Thesis: Adaptive LQG Based Stabilizing and Energy Based GA Tuned PD Swing up Controller

Design for Rotary Inverted Pendulum

Bachelor of Science in Electrical and Computer Engineering (Power and Control)

Oct 2019

Adama science and technology University, Adama, Ethiopia

GPA 3.62/4.0

RESEARCH INTEREST

- Robust, Adaptive, and Fault-Tolerant Control
- Control Theory and Nonlinear Dynamical Systems
- Distributed Control, Estimation, and Cooperative Control
- Intelligent Control, Reinforcement Learning, and Machine Learning
- Autonomous Aerial, Underwater, and Multi-Domain Robotic Systems
- Real-Time Simulation, Hardware-in-the-Loop (HILS), and Embedded Control

PROFESSIONAL EXPERIENCE

Space Science and Geospatial Institute, Associate Researcher

Nov 2024 – Aug 2025

- Contributed to the development of guidance, navigation, and control systems for fixed-wing VTOL unmanned aerial vehicles.
- Participated in research activities related to autonomous flight, flight stability, and mission control.

Bonga University, Department of Electrical Engineering, Lecturer

Des 2021 – Nov 2024

- Delivered undergraduate courses in control systems, electrical engineering, electronics, and related laboratory subjects.
- Served as Head of the Electrical and Computer Engineering Department and coordinated academic and administrative activities.
- Served as College Dean and supported curriculum development, staff coordination, student supervision, and quality assurance.
- Supervised student projects, laboratory experiments, research activities, and technical reports.
- Participated in departmental planning, committee activities, and community service programs.

Adama Sciecn and Technology University, Technical Assistant

Oct 2019 – Feb 2021

- Prepared laboratory equipment, experimental setups, software, and instructional materials for practical sessions.
- Assisted students and instructors during laboratory experiments and technical demonstrations.
- Performed basic equipment testing, troubleshooting, maintenance, and inventory management.

PUBLICATON (Journal, SCIE)

- H. Tadele, **M. Yitayih**, A. Tullu, and S. Jung*, Sensorless Speed Control of a PMSM Using Super-Twisting Sliding Mode Control for Three-Wheel Electric Vehicle Propulsion, IEEE Access, vol. 14, pp.46902-46915, 2026 (ISSN 2169-3536) (20260325, IF: 4.2, Q2, 65.4%)
- G. Teklay, A. Abagero, **M. Yitayih**, W. Kim, C.-U. Hyun, A. Tullu, and S. Jung, System-Level Challenges and Technological Enablers of UAV Operations in Polar Regions: A Critical Review, Cold Regions Science and Technology (Under Review), 2026.

PUBLICATIONS (non-conference)

- **M. Yitayih** and S. Jung*, Robust Adaptive Fault-Tolerant Control (RAFTC) for a Flying–Underwater Vehicle (UAUV) in Hovering, Cruise, and Vertical Recovery Modes, Presented at the 2026 Space Talk, Gwangju, South Korea, July. 2026.

TECHNICAL SKILLS

Programming

- Java, C/C++, Python, and MikroC

Engineering Software

- MATLAB, LabVIEW, Proteus, and KiCad

Robotics and Autopilot

- ROS, PX4 Autopilot, and Gazebo Simulator

General Software

- Microsoft Office applications

REFEREES

- Prof. Dr. Sunghun Jung — Associate Professor, Département of Aerospace Engineering, Chosun University, Republic of Korea Email: jungx148@gmail.com
- Dr. Abera Sh. Tullu — Assistant Professor, Korea Aerospace University, Republic of Korea Email: tuab@kau.ac.kr
- Shimeles Demissie (PhD) (shimeles.demissie@astu.edu.et): Adama Science and Technology University, Ethiopia

LANGUAGE SKILLS

- Amharic (Native), English (Fluently), Korean (Beginner)