Benedictus Christo Geroda Cinun

Bachelor of Electrical Engineering

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Profile

I earned my Bachelor's degree in Electrical Engineering from Parahyangan Catholic University. Currently I am a PhD student at the University of Houston. My goal is to contribute to the field of Mechatronics, particularly in areas such as robotics and control systems. I aim to apply the skills and knowledge that I acquired through my studies, various projects and research experiences to solve real-world problems.

Areas of Expertise

MATLAB - Solidworks - Arduino - LabVIEW - Python - ROS2 - Robot Kinematics and Dynamics - Control Systems - Safety-Critical Control - CAD/CAM - LaTeX - Overleaf

Professional Experience

Instructional Assistant, *(University of Houston)* **Houston, Texas** *01/2026 - 04/2026*
- Responsible for ELET 1400 Laboratory Sessions and Grading for ELET 2103.
- Review and grade students reports, homework and tests.

Instructional Assistant, *(University of Houston)* **Houston, Texas** *08/2025 - 12/2025*
- Responsible for ELET 1400 and ELET 2103 Laboratory Sessions, as well as Grading for ELET 3301.
- Review and grade students reports, homework and tests.

Instructional Assistant, *(University of Houston)* **Houston, Texas** *04/2025 - 06/2025*
- Guide students in writing and present their projects.
- Review and mark laboratory reports of students.

Research Assistant, *(University of Houston)* **Houston, Texas** *02/2025 - Present*
- Conducted research on safety controls for the Stewart platform.
- Wrote the code and simulated the proposed controller in MATLAB.
- Wrote several research papers.

Research Assistant, *(Parahyangan Catholic University)* **Bandung, West Java** *08/2024 - 12/2024*
- Conducted research on UAVs, focusing on quadrotors and control methods.
- Simulated various UAV control and trajectory parameters using MATLAB.
- Assisted in writing research papers.

Laboratory Assistant, *(Parahyangan Catholic University)* **Bandung, West Java** *09/2023 - 01/2024*
- Taught students basic machining processes such as milling and turning.
- Taught students how to operate vertical milling machine.
- Made learning modules for students.
- Reviewed and marked student's reports.

PPC Department Intern *(PT. Mikron Presisi Indonesia)* **Bandung, West Java** *07/2023 - 09/2023*
- Determined the process needed to be taken to make a product.
- Made 3D parts of a drawing using Solidworks.
- Made G-Code of parts that are in production using MasterCam.

Laboratory Assistant, *(Parahyangan Catholic University)* **Bandung, West Java** *02/2023 - 7/2023*
- Made learning modules about Digital Systems and Microprocessor Systems.
- Taught basic Python programming and algorithms.
- Reviewed and marked student's reports.

Publications

1. **Cinun, B. C.**, Tamba, T. A., & Wahab, F. (2024, October). Kinematic Modeling and Prototype Development of a Six Degrees-of-Freedom Stewart Platform. In 2024 14th International Conference on System Engineering and Technology (ICSET) (pp. 143-147). IEEE.
2. Tamba, T. A., **Cinun, B. C. G.**, Nazaruddin, Y. Y., Romdlony, M. Z., & Hu, B. (2024). Event-triggered robust formation control of multi quadrotors for transmission line inspection. Journal of Mechatronics, Electrical Power, and Vehicular Technology, 15(2), 197-207.
3. **B. C. G. Cinun**, T. A. Tamba, I. R. Santjoko, X. Wang, B. Hu, and M. A. Gunarso, "End-to-End Design and Validation of a Low-Cost Stewart Platform With Nonlinear Estimation and Control," Advanced Control for Applications: Engineering and Industrial Systems8, no. 1 (2026): e70050, https://doi.org/10.1002/adc2.70050.

Education

PhD in Electrical Engineering *University of Houston* **Houston, Texas** *2025-Present*
- Relevant Courses: Learning-Based Control, Robot Operating System (ROS), State-Space Control Systems, Introduction to Robotics.
- Current Cummulative GPA: 3.668

Bachelor of Electrical Engineering *Parahyangan Catholic University* **Bandung, Indonesia** *2020-2024*
- Relevant Courses: Electronics, Robot Kinematics, Algorithms and Programming, Automatic Control Systems, Modern Control Systems, Digital Systems, Mechatroincs Product Design.
- GPA: 3.61

Extracurricular Activities

Japanese Language Course, *Northern Lights Education Center* **Bandung, West Java** *2022 - 2024*
- Finished the N5 Level Course in 2023.
- Finished the N4 Level Course in 2023.
- Finished the N3 Level Course in 2024.

Classical Piano Course, *Allegria Music School* **Bandung, West Java** *2009 - 2020*
- Education in classical piano theory and practice.
- Piano education from Beginner Level to Intermediate Level.
- Participated in many internal concert.
- Participated in ABRSM Exam Grade 3 and Grade 5.

Skills

- **Software:** Solidworks, MATLAB, Python, LaTeX, LabVIEW, Microsoft Word, Microsoft Excel, Microsoft Power Point
- **Prototyping:** Kinematic and Dynamic Modelling of Robots, Robotics Simulation on MATLAB, Designing Mechanical and Electrical Systems, Engineering Drawing
- **Soft Skills:** Teamwork, Problem-solving, Adaptability, Resilience, Presentation, Decision-making, Organization

Languages

- **English** [Advanced]
  - TOEFL iBT Score: 102/120
    - Reading: 29/30
    - Listening: 27/30
    - Speaking: 22/30
    - Writing: 24/30
- **Indonesian** [Native]
- **Japanese** [Basic]