

Clinton Enwerem

Research Interests

Multiagent Systems, Distributed Control, Robotics.

Education

- 2021-Date **PhD, Electrical & Computer Engineering**, *University of Maryland*, College Park, MD, USA
Expected May 2026. Advisor: Professor John S. Baras.
- 2014-2018 **B.Eng., Electrical Engineering**, *University of Nigeria*, Nsukka, Enugu, Nigeria
Emphasis: Control Theory.

Selected Publications

Draft/Submitted/In-Review Articles

- 2023 **Clinton Enwerem** and John S. Baras. Formation Tracking for a Class of Uncertain Multiagent Systems: A Distributed Kalman Filtering Approach, May 2023.
- 2023 **Clinton Enwerem**, John S. Baras, and Danilo Romero. Distributed Optimal Formation Control for an Uncertain Multiagent System in the Plane, January 2023.

In Conference Proceedings

- 2023 **Clinton Enwerem** and John S. Baras. Consensus-Based Leader-Follower Formation Tracking for Control-Affine Nonlinear Multiagent Systems. *To appear in the 2023 International Conference on Control, Decision and Information Technologies (CoDIT)*, 2023.
- 2019 Ihechiluru Okoro and **Clinton Enwerem**. Model-based Speed Control of a DC Motor Using a Combined Control Scheme. *2019 IEEE PES/IAS PowerAfrica*, pages 1–6, August 2019.

Journal Articles

- 2020 Ihechiluru S. Okoro and **Clinton O. Enwerem**. Robust control of a DC motor. *Heliyon*, volume 6, December 2020.

Research Experience

Institute for Systems Research (ISR), University of Maryland

- Aug. 2021-Date **Graduate Research Assistant**
Research Foci: Networked Multiagent Systems, Trusted Autonomy, Robust Robot Control.

Electrical Engineering Department, University of Nigeria, Nsukka

- Sep. 2018-Mar. 2021 **Research Assistant**
Research Topics: Robust Control, Observer-Based Compensator Design, Feedback Linearization.
- Aug.-Oct. 2017 **Undergraduate Research Assistant**
Research Topics: Feedback Control, Time-Delayed Systems, System Identification.

Professional Experience

ISR & University System of Maryland at Southern Maryland, California, MD

- Jun.-Aug. 2022 **Research Intern**
Worked in collaboration with the [MATRIX](#) Lab on problems encompassing multi-agent cooperative control, formation control, and target tracking under uncertainty.
Supervisor: Dr. Danilo Romero.

Robotics & Artificial Intelligence Nigeria (RAIN), Ibadan, Nigeria

Mar. 2020-Feb. 2021 **Robotics Trainee**

Saw varied robotics and IoT projects through hardware and software development stages comprising computer-aided design, prototyping, firmware and controls, and testing.

Honors & Awards

- 2022 2022-2023 Microsoft Diversity in Robotics & Autonomy PhD Fellowship.
- 2022 ROSCon Diversity Scholarship: Travel grant to attend ROSCon 2022 in Kyoto, Japan.
- 2021 Finalist, Engineers' League, Pan-African Robotics Competition, Rwanda.
- 2021 CIT Dean's Fellowship, Carnegie Mellon University, Africa Campus, Kigali, Rwanda.
- 2021 Dean's Fellowship, University of Maryland, College Park, MD, United States.
- 2020 Scholar, Stanford Exposure to Research & Graduate Education, Stanford University, CA, USA.
- 2020 EducationUSA Opportunity Funds Program Scholarship, U.S. Consulate General, Lagos, Nigeria.
- 2020 Sole Recipient (Nationwide), Door Foundation Leadlight Scholarship, RAIN.
- 2016-2018 Agbami Science & Technology Scholarship, Chevron: Merit-based undergraduate scholarship.
- 2015-2018 MTN Foundation Scholarship: Merit-based undergraduate scholarship.

Technical Skills

- Robotics **Tools:** ROS/ROS2, Gazebo, RViz, MoveIt!; **Robots:** Crazyflie 2.X, Turtlebot2.
- Engineering MCUs, Prototyping, Altium Designer, SolidWorks, Fusion 360.
- Programming Matlab, C/C++, Python, Bash, \LaTeX , Tk.
- Frameworks Jupyter, TensorFlow, OpenCV.
- Optimization Gurobi, Pyomo.
- Web HTML, CSS, JavaScript, Markdown.
- OS Linux, Windows.
- Version Control git, GitHub, GitLab.

Relevant Courses

Doctoral

- Spring 2023 Network Control Systems, Decision Making Under Uncertainty: RL, Control, & Games.
- Fall 2022 Random Processes, Advanced Digital Signal Processing.
- Spring 2022 Nonlinear Control Systems, Optimal Control.
- Fall 2021 System Theory, Convex Optimization.

Open Courseware

- Fall 2022 Aerial Robotics by the University of Pennsylvania.
- Summer 2022 Autonomous Navigation for Flying Robots by the Technical University of Munich.
- Spring 2022 Principles of Robot Autonomy I & II by Stanford University.

Academic Service

- 2023 Reviewer, Mediterranean Conference on Control and Automation.

Outreach & Mentoring

- 2021-Date Member, Black in Robotics (BiR): BiR is a U.S. organization dedicated to promoting Black representation in robotics.
- 2021-2022 Mentor, EducationUSA and the iScholar Initiative: provided guidance to outstanding STEM college graduates from underrepresented backgrounds, which culminated in their securing full-ride U.S. grad admission offers.

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