Juan Glicerio C. Manlapaz

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PROFESSIONAL PROFILE

- A recent electronics engineering graduate and registered electronics engineer and electronics technician aspiring to become an academic professional and researcher focused on power electronics and energy engineering with goals of pursuing graduate studies in electrical and electronics engineering. Highly versatile and self motivated individual with technical skills ranging from programming to simulation.

EDUCATION

University of the Philippines Diliman — September 2023 – Present
M.S. in Electrical Engineering

Ateneo de Manila University — August 2018 – December 2022
B.S. in Electronics Engineering with Minor in Data Science and Analytics

- Undergraduate Thesis: *Optimization and Simulation of Distributed Generation: A Case Study on the PLDT-CTC Building of Ateneo de Manila University*
- Distinction: *Cum Laude*
- GPA: *3.63/4.00*

CERTIFICATIONS

Registered Electronics Engineer, PRC ID No. 0079282
Registered Electronics Technician, PRC ID No. 0026363

WORK EXPERIENCE

Research Fellow I (Power Electronics), Project CIPHER — June 2023 – April 2024
University of the Philippines Diliman — *Quezon City*

- Project CIPHER (short for Clean and Vertically-Integrated Pure/Applied Hydrogen Energy Research for Next Generation Power Systems) aims to develop energy storage technologies by addressing key areas in energy research, combining computational and experimental approaches to help the Philippines transition into a cleaner and sustainable energy system.
- Funded by the Philippine California Advanced Reseach Institutes (PCARI) program of the Commission on Higher Education (CHED) and is currently under the joint supervision of Laboratory of Electrochemical Engineering and Artesyn-Power Electronics Laboratory, University of the Philippines Diliman.

Intern, CIO - Travel and People Mobility - IT — July 2021 – August 2021
Accenture in the Philippines — *Mandaluyong City*

- On-the-job Training
- Developed automation code for addressing developer backlogs, resulting in a 25% increase in bug processing
- Developed 3 automation scripts for addressing bugs in a span of two weeks.

AFFILIATIONS AND MEMBERSHIPS

Ateneo Alumni Association — 2023 – Present
Ateneo Alumni Scholars Association — 2023 – Present
Laboratory of Electrochemical Engineering - Lab Affiliate — 2023 – Present
Artesyn-Power Electronics Laboratory - Lab Affiliate — 2023 – Present
Institute of Electronics Engineers of the Philippines (IECEP) — 2023 – Present
Ateneo Energy Research Laboratory - Lab Affiliate — 2022 – 2023

Publications

J.G. Manlapaz, D. Reyes, C. P. Buensuceso, R. A. Peña, R. Parocha, and E. Q. Macabebe, "Optimization and simulation of a grid-connected PV system using load forecasting methods: A case study of a university building", *IOP Conference Series: Earth and Environmental Science*, 2023, vol. 1199, doi: 10.1088/1755-1315/1199/1/012006

C. P. L. Buensuceso, **J. G. C. Manlapaz**, D. M. Reyes, R. A. S. Peña, R. C. Parocha and E. Q. B. Macabebe, "Energy Management for Grid- Tied PV Systems Using Particle Swarm Optimization," *2022 IEEE International Conference on Power and Energy (PECon)*, 2022, pp. 105-110, doi: 10.1109/PECon54459.2022.9988838

Conferences

J.G. Manlapaz, A. Escultero, O. Salvaleon, J. Ocon, and C. M. Odulio, "Performance Evaluation of LLC Resonant Converter Configurations for Fuel Cell Applications", 2023 International Conference on Sustainable Energy and Green Technology

C. P. Buensuceso, **J.G. Manlapaz** , D. Reyes, R. A. Peña, R. Parocha, and E. Q. Macabebe, "Energy Management System for a University Building Microgrid using Particle Swarm Optimization", 2022 International Conference on Power and Energy

J.G. Manlapaz, D. Reyes, C. P. Buensuceso, R. A. Peña, R. Parocha, and E. Q. Macabebe, "Optimization and simulation of a grid-connected PV system using load forecasting methods: A case study of a university building", 2nd ASEAN International Conference on Energy and Environment, *Best Presenter*

Volunteering Work

Office of Admission and Aid, Loyola Schools, Ateneo de Manila University   2018 – 2022
Scholar Volunteer
- As a financial aid scholar in Ateneo de Manila University, worked as one of the student volunteers of the Office of Admission and Aid (OAA) as part of service hours requirement among others.
- Demonstrated versatility, competence, compassion, and efficiency in various roles asked by the office.
- Roles include Ateneo College Entrance Exam (ACET) OAA Assistant and Proctor, Campus Tour Guide, Infodesk Volunteer, Data Encoder, Video Editor, and Academic Tutor.

Ateneo Electronics and Computer Engineering Society   2019 – 2021
Executive Board Member (2020 – 2021), Central Board Member (2019 – 2020)
- Organized 7 technical workshops ranging from Basic Arduino to Git Fundamentals.
- Organized departmental events and schedules which increased workshops offered by 100% and tutorial services given by 200%.
- Compiled 25 electronics and computer engineering academic resources into a centralized folder aimed at assisting 160 electronics engineering and computer engineering majors in understanding the new curriculum.
- As an overseer, worked as the main externals head in communicating prospective speakers for the event, led a team of freshmen in organizing the event.

Learning Management System Support Services   2020
Member
- A project under a team led by the Department of Information Systems and Computer Science (DISCS) professors.
- Trained and handled ten professors from the Loyola School of Theology, School of Social Sciences, and John Gokongwei School of Management to be familiar and competent with their respective LMS to facilitate them in their transition to online instruction during the COVID-19 pandemic.

Skills

Programming Languages: C++, Python, SQL (MySQL), Arduino, Julia, HTML, CSS, Bootstrap, MATLAB, Simulink
Libraries: pandas, NumPy, Matplotlib, SymPy
Miscellaneous Software: Notion, LaTeX, AWS, Tableau, LTSpice, NI MultiSim, HOMER Pro, Adobe Creative Cloud, CAD