RADITYA CHEMA HAFIZH PRADIGTA

Chema (he/him) | Singapore | raditya.chema@gmail.com | linkedin.com/in/raditya-chema-hafizh-pradigta-7b4ba4190

PhD researcher at NTU working on optimization and mechanism design for electric-vehicle fleets that provide vehicle-to-building (V2B) services. Aerospace engineer by training, with consulting experience in airline fleet analysis.

EDUCATION

Nanyang Technological University (NTU), Singapore Jan 2026 – present
PhD, Interdisciplinary Graduate Programme, Energy Research Institute @ NTU (ERI@N)
- Thesis: **Optimization of EV Fleets for Vehicle-to-Building Services under Operational Uncertainty**
- Supervisors: Prof. Arvind Easwaran (NTU); co-supervisor Dr. Rémy Rigo-Mariani (G2Elab, CNRS)

Institut Teknologi Bandung (ITB), Indonesia Aug 2021 – 2025
Bachelor of Engineering, Aerospace Engineering
- Final project: air-transport network design. Favourite areas: air transport modelling, structural mechanics

Jay County High School, Indiana, USA Aug 2019 – Jun 2020
Honorary High School Diploma, Kennedy-Lugar Youth Exchange and Study (YES) scholar

PUBLICATIONS

- **R. C. H. Pradigta**, S. R. Kumar, R. K. Ahir, A. Easwaran, "Co-Simulation of Vehicle-to-Building (V2B) and Thermal Loads: A Scalable Testbed for Integrated Demand Response in Commercial Facilities," **ASIM 2026** (accepted).
- **R. C. H. Pradigta**, R. Rigo-Mariani, A. Easwaran, "Demand-Fulfillment Trade-offs in a Joint Routing and Vehicle-to-Building Peak-Shaving Model," **IEEE PES International Meeting 2027**, Beijing (submitted).
- In preparation: building–fleet V2B contract design via decomposition-based pricing.

PROFESSIONAL EXPERIENCE

Consulting Assistant, PT LAPI ITB Feb 2025 – Dec 2025
- Fleet analysis and optimization for PT Pelita Air Service's charter operations, working under an ITB lecturer.

Strategy & Portfolio Management Intern, Aerowisata (Garuda Indonesia Group) Jul 2024 – Aug 2024
- Contributed to the company's long-term corporate plan (RJPP) and supported the strategy team's analysis.

TEACHING & MENTORING

Teaching Assistant, SC1013 Physics for Computing (lab sessions), NTU Aug 2026 – present

Teaching Assistant, Smart Cities, ASEAN Summer Programme, NTU Jul 2026

Final-year project co-supervision, NTU 2026 – present
- Co-supervising three undergraduate projects built on an electric taxi-fleet simulator (reinforcement learning for V2B, federated learning, and data-integrity studies).

Mentor, NTU DeepSpeed (F1TENTH autonomous racing team) 2026 – present

LEADERSHIP & SERVICE

Director of Recreation, 13th IGP Graduate Students' Council, NTU Aug 2026 – present
- Elected unanimously; plans recreational and community events for the IGP graduate student body.

Marketing & Ticketing, ICN 2027 (PINTU Indonesian cultural musical, Singapore) 2026 – 2027

President, Aerospace Engineering Student Association (KMPN) ITB Apr 2024 – Mar 2025
- Led the executive board and oversaw all association activities; mentored board members and volunteers.

Chapter Coordinator, Indonesian YES Alumni Association; Alumni Volunteer, AFS Indonesia 2020 – 2024

SKILLS & ADDITIONAL

Methods: mixed-integer programming, Dantzig–Wolfe decomposition / column generation, Stackelberg and bargaining games, reinforcement learning, co-simulation

Tools: Python, Gurobi, PyTorch, Stable-Baselines3, LaTeX, Git

Languages: Indonesian (native), English (native/bilingual), Indonesian Sign Language BISINDO and ASL (elementary)

Awards & certificates: Kennedy-Lugar YES scholarship (US Dept. of State, 2019–20); 100-hour Community Service recognition (US Dept. of State, 2020); Indiana Academic Super Bowl, math (Purdue, 2020); TU Delft SA01x Sustainable Aviation; BISINDO Level 1