Curriculum Vitae

1. Name and Academic Rank

Chadi Nohra
Associate Professor (Full-Time)

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2. Education

- **Ph.D. in Control and Automation**
  Paul Cézanne University (Aix-Marseille III), France, 2009
  Doctoral Thesis: *Diesel Engine Diagnosis*
- **Diploma in Electrical and Electronics Engineering**
  Lebanese University, Lebanon, 1997

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3. Academic Experience

- **Beirut Arab University (BAU), Tripoli Campus**
  Assistant Professor (Full-Time), Fall 2012 – Present
- **Lebanese International University (LIU)**
  Assistant Professor (Full-Time), 2011 – 2012
- **LIU & Antonine University**
  Assistant Professor (Part-Time), 2009 – 2011
- **Notre Dame University (NDU), LIU, Antonine University**
  Part-Time Lecturer
- **Lebanese University – Faculty of Engineering**
  Laboratory Trainer, 2004 – 2009

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4. Non-Academic Experience

- **SAKR Power Systems**
  Production & Maintenance Engineer (Full-Time), 1999 – 2000
  Responsible for production supervision, maintenance planning, troubleshooting, and operation of electrical power systems.

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5. Professional Certification / Registration

- Registered **Electrical Engineer**,
  Member of the Order of Engineers & Architects – Tripoli

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6. Membership in Professional Organizations

- Member, Order of Engineers & Architects – Tripoli
- Active Member, **FISUEL** (International Federation for the Safety of Electricity Users)

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7. Honors and Awards

- One of the Most Active Researchers for the academic year 2024-2025, Faculty of Engineering, BAU university
- Graduated with **"Très Honorable" (Highest Distinction)**,
  Paul Cézanne University (Aix-Marseille III), France, 2009

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8. Service Activities

University Committees

- ABET Self-Study Report Committee, 2013 – Present
- Library Committee, 2023 – 2024
- Laboratories Committee, 2012 – 2018
- Student Activities Committee, 2014 – 2015
- Startup Weekend Committee, 2014 – 2015
- Job Fair Committee, 2013 – 2014
- Electrical Maintenance Committee, BAU Tripoli Branch, 2012 – 2014

Professional Training & Continuing Education

- **Beirut Arab University – Continuous Education Program (CEP)**, 2013 – 2014
  - Electrical Installation
  - Synchronizing Panel Boards
  - Motor Control Centers
- **Order of Engineers – Tripoli**, 2012 – 2014
  - Electrical Installation

    - Synchronizing Panel Boards
    - Motor Control Centers
- **Order of Engineers – Tripoli**, 2009 – 2011
    - Electrical Installation
    - Wiring
    - Ecodial
    - Lighting Design (DIALux)
    - Backup Power Supply Systems
    - Lightning Protection and Earthing
    - Synchronizing Panel Boards
    - Motor Control Centers

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9. Publications

Journal Articles

Nohra, C., Ghandour, R., Dankar, O., Nehmi, B., Khaled, M., and Alsayah, A. M., "A μ-Synthesis Framework for Multi-Domain Robust Load Frequency Control under Concurrent Communication Delays and Parametric Uncertainties," *IEEE Access*, 2026.

Nohra, C., Ghandour, R., Nehmi, B., Khaled, M., and Outbib, R., "A Novel μ-Analysis-Based Estimator for State of Charge and State of Health Estimation in Lithium-Ion Batteries for Electric Vehicles," *World Electric Vehicle Journal*, 2026.

Shamtia, F., El Falou, S., Accari, E., and **Nohra, C**. "Optimizing 3D Floodlight Orientation for Uniform Sports Lighting: A Genetic Algorithm on a Hexagonal Grid," *International Journal of Energy Research*, **accepted with revision**, 2026.

Nohra, C., Faraj, J., Nehme, B., Khaled, M., and Outbib, R., "A New Approach for Estimation of Lithium-Ion Battery State of Charge and Health Using Mixed H∞/H_2 Control with a Sliding Mode Observer," *Battery Energy*, vol. 5, no. 1, Jan. 2026.

Nehme, B., Khoury, D., KMsirdi, N., and **Nohra, C**. "Optimization Design of a PV System Using a Genetic Algorithm," *Battery Energy*, vol. 5, no. 1, Jan. 2026.

Nohra, C., Ghandour, R., Khaled, M., and Outbib, R. "Robust FDI for Turbine-Governor and Network Parameters in Interconnected Power Systems via Mixed H∞/Pole Placement Observers," *Results in Control and Optimization*, vol. 21, Art. no. 100619, Dec. 2025.

Nohra, C., Ghandour, R., Khaled, M., and Outbib, R.
"A Novel H∞/H_2 Pole-Placement LFC Controller with Measured Disturbance Feedforward Action for Disturbed Interconnected Power Systems," *Automation*, vol. 6, Art. no. 90, 2025.

Nehme, B., Hajj, E., and **Nohra, C**.
"Energy Consumption Predictions Using a Neural Network," *Energy Informatics*, vol. 8, Art. no. 139, Nov. 2025.

O. R. Skheel, I. S. Resen, M. F. M. Ali, A. M. Alsayah, T. Ibrahim, M. Khaled, **C. Nohra**.
"Geometry optimization and comparative analysis of solar collectors using ANN and GA techniques," *Results in Engineering*, vol. 28, Art. no. 107234, 2025.

Nohra, C., et al.
"Hybrid Thermoelectric Generator System for Enhanced Waste Heat Recovery from Diesel Generators Using HVAC Condenser Airflow," *Materials Science for Energy Technologies*, vol. 8, pp. 178–187, 2025.

Nassereddine, M., **Nohra, C.**
"Maximum Power Point Box (MPPB) Design to Advance BIPV Installations on Residential Properties," *Indonesian Journal of Electrical Engineering and Informatics (IJEEI)*, **vol. 9**, pp. 256–264, 2021.

Nassereddine, M., Ali, K., and **Nohra, C.**
"Photovoltaic Solar Farm: Earthing System Design for Cost Reduction and System Compliance," *International Journal of Electrical and Computer Engineering*, **vol. 10, no. 3**, p. 2884, 2020.

Nahim, H., Younes, R., and **Nohra, C.**, Ouladsine, M.
"Complete Modeling for Systems of Marine Diesel Engine," *Journal of Marine Science and Application*, Mar. 2015.

Conferences

Ginzarly, R., Nachabe, L., **Nohra, C.**, Hussein, A., Malas, H., and Khawla, M. "An Automatic Transfer Switch (ATS) System Based on Cost Effectiveness—Lebanese Case Study," in *Proceedings of the 2024 International Conference on Smart Systems and Power Management (IC2SPM)*, organized by IEEE Joint Chapter IE/PEL/CAS/PE, 2024.

Nassereddine, M., Pamgracious, V., and **Nohra, C.** "Residential Photovoltaic Systems Design for Countries with Planned Regular Outages," in *Proceedings of the 2019 International Conference on Electrical and Computing Technologies and Applications (ICECTA)*, 2019.

Nassereddine, M., Rizk, J., Nagrial, M., Hellany, A., and **Nohra, C.** "Smart Grid and Photovoltaic System to Mitigate Blackouts and Load Shedding," in *AIP Conference Proceedings*, vol. 2123, no. 1, Art. no. 020001.

Saad, Y., **Nohra, C.**, Younes, R., Abboudi, S., Ilinca, A., Ibrahim, H., and Feger, Z. "Study of an Optimized Wind-Diesel Hybrid System for Canadian Remote Sites," in *Proceedings of the 2017 IEEE Electrical Power and Energy Conference (EPEC)*, 2017.

Saad, Y., Younes, R., Abboudi, S., Ilinca, A., and **Nohra, C.** "Progress in Energy Generation for Canadian Remote Sites," in *AIP Conference Proceedings*, vol. 1758, Art. no. 020005, 2016. doi: 10.1063/1.4959381

Nohra, C. "μ-Analysis Control Adaptation for Online Stator and Rotor Fault Diagnosis in Induction Machines," in *Proceedings of the IEEE 26th Chinese Control and Decision Conference (CCDC)*, China, 2014.

Nohra, C. "Online Stator and Rotor Fault Diagnosis in Induction Machines by H∞ Observer and Sliding Mode Estimator," in *Proceedings of the IEEE 25th Chinese Control and Decision Conference (CCDC)*, Guilin, China, 2013.

Nohra, C., Younes, R. "Complete-Model Diesel-Engine Diagnosis Using Gain Schedule–μ Analysis and Nonlinear Estimator," in *Proceedings of the 7th IEEE Conference on Industrial Electronics and Applications (ICIEA)*, Singapore, 2012.

10. Professional Development Activities (Last Five Years)

- **Designed and developed four new academic courses** aligned with emerging industry and market needs:
  - *Electric Vehicle Technology*
  - *Power Generation Systems*
  - *Wind Energy Conversion Systems*
  - *Renewable Energy Systems*
- **Proposed, designed, and fully developed a new academic track in "Electric Vehicles"**, including:
  - Program structure and learning outcomes
  - Course sequencing and academic framework
  - Complete course descriptions and detailed syllabi for all track courses
- Actively engaged in the **renewable energy and electric mobility sectors** through curriculum innovation, professional training, and applied academic–industry collaboration.

Field of Specialization

Control, Optimization, and Production of Sustainable Energy Systems