MOHAMED NIZAR HMADI

1. **Name and academic rank**

   Mohamed Nizar Hmadi, Assistant Professor, full time.

2. **Education – degree, discipline, institution, year**

   - Ph.D., Renewable Energy Engineering, Saint Joseph University of Beirut (USJ-ESIB), Lebanese University (Doctoral School-EDST), Lebanon, August 2020.
   - Master's Degree in Renewable Energy Engineering, Saint Joseph University of Beirut (USJ-ESIB), Lebanese University – Faculty of Engineering, Lebanon, July 2016.
   - Degree of Mechanical Engineer, Lebanese University, Faculty of Engineering, Mechanical Department, Branch 3, Lebanon, July 2014.

3. **Academic and Professional experience**

   3.1 Academic experience

   - Beirut Arab University, Lebanon, Assistant Professor, Fall 2023-present, full time.

   3.2 Non-academic experience

   - Consult sarl, Mechanical and Energy Engineer HVAC, Public Health, Firefighting, Energy Modeling, 2014-2023, full time.

4. **Professional credentials, certificates, or licensing**

   - Certified Energy Manager® (CEM®), 2017,Association of Energy Engineers (AEE), credential id: 94791 – CEMI
   - LEED Green Associate Certification, 2017, GBCI Green Building Certification Institute, credential id: 11149443-GREEN-ASSOCIATE
   - "TRAIN THE TRAINER" UNDP WORKSHOP on Energy Efficiency System, 2022, United Nations Development Program (UNDP), CEDRO5, EEASER, European Union
   - Advanced Energy Audit and Process Integration Summer School, 2018, Mines ParisTech, Centre Efficacite Energetique des Systemes, CES Holy Spirit University of Kaslik, USEK
   - Certificate of Completion Project Management Professional (PMP®), 2015 PROMASTAR: Project Management Institute (PMI), Oracle Platinum Partner, Oracle Approved Education Provider
   - Certificate of Completion Revit MEP, 2014, HVAC and Piping EXPERTISE TRAINING CENTER / ETC, Autodesk® Authorized Training Center (ATC®)

5. **Professional development activities**

   - Participated in AEE seminars and workshops

6. Contribution to the discipline

6.1 Service activities

- Member of BAU Faculty of Engineering Library Committee
- Mechanical Engineering internship advisor
- Mechanical Engineering final year project advisor

6.2 Publications

6.2.1 Journal Publications:

- Eid S, Lahoud Chawki, Brouche M, Hmadi M, Lahoud Christy. Modeling and Validation of the Enthalpy-Temperature Curve for Phase Change Materials. MSF 2022; 1050:149–59. https://doi.org/10.4028/www.scientific.net/msf.1050.149

- Lahoud Christy, Brouche ME, Lahoud Chawki, Hmadi M. A Review of single-effect solar absorption chillers and its perspective on Lebanese case. Energy Reports 2021; 7:12–22. https://doi.org/10.1016/j.egyr.2021.09.052.

- Saad S, Lahoud C, Brouche M, Hmadi M, Ghandour M, Mourtada A. Advanced tool for elaborating a sustainable energy and climate action plan at municipalities level. Energy Reports 2021; 7:51–69. https://doi.org/10.1016/j.egyr.2021.09.049.

- Hmadi M, Mourtada A, Daou R. Forecasting the performance of a district solar thermal smart network in desert climate – A case study. Energy Conversion and Management 2020; 207:112521. https://doi.org/10.1016/j.enconman.2020.112521.

6.2.2 International Conference Proceedings:

- Lahoud Christy, Brouche M, Lahoud Chawki, Hmadi M. Thermo-Economic Comparison of Solar Thermal Cooling and Solar Photovoltaic Cooling Systems for a Typical Residential Building – Lebanese Case Study. 2023 IEEE 4th International Multidisciplinary Conference on Engineering Technology (IMCET) 2023. https://doi.org/10.1109/imcet59736.2023.10368259.

- Lahoud Christy, Brouche M, Lahoud Chawki, Hmadi M. Thermo-Economic Performance of a Solar-Driven Single-Effect Absorption Chiller in Lebanon.

2023 6th International Conference on Renewable Energy for Developing Countries (REDEC) 2023. https://doi.org/10.1109/redec58286.2023.10208167

- Itani A, Akıllı H, Hmadi M, Ghandour M. Investigating the Performance of a Solar PV Driven VRF System Using Cold PCM Thermal Storage. 2023 6th International Conference on Renewable Energy for Developing Countries (REDEC) 2023. https://doi.org/10.1109/redec58286.2023.10208176.

- Hmadi M, Ghandour M, Mourtada A, Daou RZ. Near Zero Cooling Residential Building Using Hot and Cold Phase Change Material Thermal Storages - Lebanon Case Study. 5th International Conference Efficient Building Design. ASHRAE 2022. Product Code (ASHRAE Bookstore): D-ICEB22-11. Available online: https://www.techstreet.com/standards/c11-near-zero-cooling-residential-building-using-hot-and-cold-phase-change-material-thermal-storages-lebanon-case-study?product_id=2523000

- Hmadi M, Mourtada A, Daou RZ. Optimized Methodology Towards Near Zero Thermal Energy Residential Building in Lebanon. 4th International Conference Efficient Building Design. ASHRAE 2020. Product Code (ASHRAE Bookstore): D-ICEB20-02. Available online: https://www.techstreet.com/standards/optimized-methodology-towards-near-zero-thermal-energy-residential-building-in-lebanon?product_id=2201079

- Hmadi M, Mourtada A. High Solar Combi-Plus System Using PCM Storage: KSA Case Study. 3rd International Conference Efficient Building Design. ASHRAE 2018. Product Code (ASHRAE Bookstore): D-ICEB18-C023. Available online: https://www.techstreet.com/ashrae/standards/high-solar-combi-plus-system-using-pcm-storage-ksa-case-study?product_id=2025527#product

- Hmadi M, Mourtada A, Daou RZ. Integrating a High Solar Combi-Plus System using PCM Storage in a Smart Network: KSA Case Study. 2018 4th International Conference on Renewable Energies for Developing Countries (REDEC) 2018. https://doi.org/10.1109/redec.2018.8598126.