LOUAY ELSOUFI

1. Name and academic rank

Louay Elsoufi, Associate professor, Full Time.

2. Education – degree, discipline, institution, year

- Ph.D., Mechanical Engineering, University of Technology of Belfort-Montbeliard, France, 2009.
- DEA (Master of advanced Studies), Energetics, Materials and Mechatronics, Lebanese University, Faculty of Engineering, Lebanon, in partnership with the University of Technology of Belfort-Montbeliard, France, 2003.
- BE, Mechanical Engineering, Lebanese University, Faculty of Engineering, Lebanon, 2002.

3. Academic and Professional experience

3.1. Academic experience

- Beirut Arab University, Lebanon, Associate Professor, 2023-Present, Full Time.
- Director of Master Physics Energetics in Lebanese University, Faculty of Science III, Lebanon, 2019-2023, Full Time.
- Lebanese University, Faculty of Science III, Faculty of Engineering I, Lebanon, Associate Professor, 2014-2023, Full Time.
- Lebanese French University, Lebanon, Full Time, 2009-2014 (Chairman of Mechanical and Energy Engineering Department).
- Lebanese University, Faculty of Science III, Faculty of Engineering I, Lebanon, 2009-2014, Part Time.
- National Conservatory of Arts and Crafts (CNAM), Lebanon, 2010-2014, Part Time.
- Lebanese International University, Lebanon, 2009-2012, Part Time.
- University of Technology of Belfort-Montbeliard, France, Teaching and Research Affiliate, 2007-2009, Half Time.

3.2. Non-academic experience

- Solar Power System Installation, Lebanon, 2022-2023.
- Contracting Engineer for Mechanical Installations in DCH Hospital Construction, Lebanon, 2003-2006.

4. Professional credentials, certificates, or licensing

- Qualified as an Associate Professor in Mechanical and Civil Engineering by the Ministry of Education and Higher Education in France (Qualification No. 22260370708).
- Order of Engineers and Architects, Tripoli, Member since 2014.
- Member in Association of Energy Engineers (AEE), Beirut, Member since 2018.

5. Professional development activities

- Awarded by the Association of Energy Engineers (AEE) for Best Student Chapter Meeting International, 2019.
- Awarded by Inas Abou Ayyash (IAAF) 2018 Prize for the project entitled "Intelligent Energy Saving Elevator", 2018.
- Member in the Organization Committee of the International Conference on the Actions of International Cooperation for Teaching and Research in Engineering, CITEF2014, Beirut.

6. Contribution to the discipline

6.1. Service activities

- Elaboration of a cooperation protocol between the Lebanese University and the University of La Rochelle, through an exchange program of students and professors, to establish a common educational curriculum (Double International Diploma), 2018-2019.
- Establishing AEE PNRJ Student Chapter at Lebanese University Faculty of Sciences III, 2018, Lebanon.
- Organizing of the "Scientific Day of Renewable Energy", in cooperation with the Association of Energy Engineers (AEE Lebanon Chapter), 2018, Lebanese University, Faculty of Sciences III, Lebanon.
- Participation in the establishment of the education curriculum in the Mechanical Engineering Department of the Faculty of Engineering at Lebanese French University, 2011-2012.
- Reviewer in the international journal of Smart Materials and Structures, Institute of Physics, 2007-2010.

6.2. Publications

6.2.1. Journal publications

- R. El Sawalhi, L. Elsoufi, and H. Assoum, "Multiscale modelling of heat and mass transfer in hemp wools," BAU Journal-Science and Technology, vol. 6, no. 2, 2025.
- O. Lakdar, L. Elsoufi, M. Alkheir, H. Assoum, K. Abed-Meraim, and A. Sakout, "Convolutional neural network-based reconstruction of experimental velocity fields in an impinging jet flow," International Journal of Heat & Technology, vol. 43, no. 4, 2025.
- H. Assoum, J. Hamdi, K. Abed-Meraim, M. Alkheir, T. Mrach, L. Elsoufi, A. Sakout, Spatio-Temporal Changes in the Turbulent Kinetic Energy of a Rectangular Jet Impinging on a Slotted Plate Analyzed with High Speed 3D Tomographic-Particle Image

Velocimetry, International Journal of Heat and Technology, Vol. 37, No. 4, pp. 1071-1079, December 2019.

- B. Taher, L. Elsoufi, S. Thamine, Mechanization and Bio-Hydrogen based Hybrid Systems for Fuel Cell Electricity Production from Solidwaste, International Journal of Trend in Research and Development, December 2018.
- A. Haddad, L. Elsoufi, M. Mannah, H. Bazzi, Efficiency improvement of PEM Fuel cells via humidity control, Journal of Control Science and Engineering, Vol. 4, No. 1, January 2016.
- A. Haddad, L. Elsoufi, M. Mannah, H. Bazzi, Control-Oriented Mathematical Modeling of Humidity in PEM Fuel Cells, Journal of Control Science and Engineering, Vol. 3, No. 3, June 2015.
- L. Elsoufi, K. Khalil, W. Charon, R. Lachat, Influence of the thermoplastic type on the PZT patch thermal evolution during the manufacture of a smart thermoplastic part by injection molding process, Journal of Manufacturing Science and Engineering (ASME), Vol. 137, No. 2, April 2015.
- L. Elsoufi, K. Khalil, R. Lachat, W. Charon, Modeling the thermal behavior of PZT patches during the manufacturing process of smart thermoplastic structures, Journal of Smart Materials and Structures (IOP), Vol. 16, No. 4, pp. 1076-1082, June 2007.
- L. Elsoufi, K. Khalil, R. Lachat, Déformation d'un stratifié composite au voisinage d'actionneurs piézoélectriques discrets intégrés dans le stratifié, Lebanese Science Journal (CNRS), Vol. 7, No. 2, May 2006.

6.2.2. Conference Proceedings

- M. Alkheir, H. Assoum, K. Abed-Meraim, T. Mrach, J. Hamdi, L. Elsoufi, H. Skaf, A. Sakout, Experimental investigation of the correlation between the dynamics of an impinging jet on a slotted plate and the acoustic field generated, CIFMA2018, MATEC Web of Conferences, Vol. 261, No. 4, January 2019.
- L. Mikati, L. Elsoufi, Technology for prosperity and peace brought by water, the International Conference on the Actions of International Cooperation for Teaching and Research in Engineering, CITEF 2014, Beirut, Lebanon, October 2014.
- L. Elsoufi, K. Khalil, R. Lachat, W. Charon, Influence of The thermoplastic type on the thermal evolution of A PZT patch during the manufacturing of a smart thermoplastic parts, 10th HSTAM International Congress of Mechanics, Chania, Greece, January 2013.

- L. Elsoufi, K. Khalil, R. Lachat, W. Charon, M. Zoaeter, Methodology for the manufacture of smart composites with thermoplastic matrix, CMEM2007, WIT Transactions on Modeling and Simulation, Vol. 46, pp. 589-600, June 2007.
- L. Elsoufi, W. Charon, M. Zoaeter, R. Lachat, K. Khalil, Methodology of thermo-mechanical tests, for the characterization of the stiffness increment of a multilayer piezoelectric actuator under the effect of temperature increment, Third International Conference of Multiscale Materials Modeling (MMM2006), Freiburg, Germany, September 2006.
- L. Elsoufi, W. Charon, M. Zoaeter, R. Lachat, K. Khalil, Méthodologie pour la fabrication de composites actifs à matrice thermoplastique, Cinquième Conférence Internationale sur la Science des Matériaux (CSM5), Beirut, Lebanon, May 2006.
- L. Elsoufi, W. Charon, M. Zoaeter, R. Lachat, K. Khalil, Optimisation des conditions thermiques de fabrication de pièces thermoplastiques active, CORS/Optimization Days, Montreal, Canada, January 2006.
- L. Elsoufi, W. Charon, M. Zoaeter, R. Lachat, K. Khalil, Finite elements modeling for the characterization of rigidity increment of a piezoelectric actuator integrated in thermoplastic parts, Applied Simulation and Modeling ASM2006, Rhodes, Greece, January 2006.