1. **Name and Academic rank:** Abdul Rahman El Falou, Assistant Professor, Full time
2. **Education: Degrees, discipline, institution and date:**
   Ph.D., Communication Systems, IMT-Atlantique - France, 2011
   M.E., Communication Systems, Ecole National d'Ingenieur de Brest - France, 2007
   B.E., Communications and Computer Engineering, Lebanese University – Faculty of Engineering, 2007
3. **Academic experience**
   - Beirut Arab University, Assistant Professor, 2017-present, full time
   - American University of the Middle East (Kuwait), 2022-2023, full time
   - Beirut Arab University, Assistant Professor, 2014-present, part time
   - AZM Institute, Assistant Professor, 2016-2017, part time
   - Université Libano-Française, Assistant Professor, 2014-2017, part time
   - Conservatoire National des Arts et Métiers (CNAM), Assistant Professor, 2014-2017, part time
4. **Non academic experience – company or entity, title, brief description of position, when (ex. 1993-1995), full time or part time**
   - **Mobinets** (Lebanon), Product Manager, in charge of the Development of Planning, Design and Monitoring platforms for Microwave and Optical Networks, 2014-2015, full time
   - **Ekinops** (France), System Architect Engineer, in charge of the Design, Testing and Validation of new products for optical networks (Optical Amplifiers & 100G Transponders), 2011-2014, full time
   - **Orange** (France), R&D Engineer, working on Dispersion Compensation solutions for Orange fiber optic networks using Channel Coding, Signal Processing and Electronic Equalizers, 2007-2010, full time
5. **Certification or professional Registration**
   - The Order of Engineers.
6. **Current membership in professional organizations**
   - IEEE Member
7. **Honors and Awards:**
   - Celtic-Plus Gold Award for Innovation and Excellence, France 2014.
   - PhD with High distinction From Telecom Bretagne - France, 2011.
   - Doctoral scholarship award, Orange Labs – France, (Oct. 2007 – Oct. 2010)

8. Research Interests

- Optical Communications, Signal Processing, and Nano Photonics

9. Principal publications and presentations

9.1 Textbook

None

9.2 Journal Publications

- J. M. H. Barakat, **A.R. El Falou**, Z. N. Gürkan, S. A. Alboon and A. S. Karar, "Enhanced Performance of Intensity Modulation With Direct Detection Using Golay Encoded Nyquist Pulses and Electronic Dispersion Compensation," in *IEEE Photonics Journal*, vol. 16, no. 3, pp. 1-8, June 2024, Art no. 7200908, doi: 10.1109/JPHOT.2024.3386818.
- Karar, A.S.; **El Falou, A.R.**.; Barakat, J.M.H.; Gürkan, Z.N.; Zhong, K. "Recent Advances in Coherent Optical Communications for Short-Reach: Phase Retrieval Methods." *Photonics* 2023, *10*, 308. https://doi.org/10.3390/photonics10030308
- Moussilli, Mariam and **El Falou, A.R.** (2021) "COMPARATIVE STUDY OF NANO-ROD AND NANO-SPHERE BASED LOCALIZED SURFACE PLASMON RESONANCE REFRACTIVE INDEX BIOSENSORS," *BAU Journal - Science and Technology*: Vol. 2: Iss. 2, Article 4.
- S. Hussein, **A. El Falou**, W. Sahyoun, Y. Ziade, R. Shubair, "Evaluation of Nano-Antenna Directivity Contributions for EM Propagation in WBANs", International Journal of Nanoparticles and Nanotechnology, 5:032.

Patent

- "Polarization Mode Dispersion Compensation by deterministic polarization scrambling", **A. El Falou**, P. Gavignet, E. Pincemin. N° WO2012049407, April 2012, European Patent Register

9.3 Conference Proceedings

- N. Dankar, S. El Hakam, M. Hussein, J. Samad and **A. R. El Falou**, "Crowdsourcing Platform for Mobile Network Performance Monitoring in Lebanon," *2026 IEEE 5th International Multidisciplinary Conference on Engineering Technology (IMCET)*, Beirut, Lebanon, 2026, pp. 1-5.
- **A. R. El Falou**, "A Novel Mach-Zehnder Interferometric Approach for Simplified and Highly Sensitive Surface Plasmon Resonance Sensors," *2025 Eighth International Conference on Advances in Biomedical Engineering (ICABME)*, Debbieh, Lebanon, 2025, pp. 1-4.
- M. M. Moussilli and **A. R. El Falou**, "Overview of Nano-Sphere and Nano-Rod Geometries for Localized Surface Plasmon Resonance Biosensing," 2021 IEEE 19th International Symposium on Antenna Technology and Applied Electromagnetics (ANTEM), Winnipeg, MB, Canada, 2021, pp. 1-3.

- "Single and Double staircase FMCW waveforms for enhanced range and velocity resolutions", W. Kouzaiha and **A. El Falou**, ISAET2019, Rome, Italy.
- "On the Use of Optogenetics Wireless Systems in Modern Pathology: Opportunities and Challenges", S. Hussein, **A. El Falou**, Y. Ziade, R. Shubair, ICECTA2019, RAK UAE.
- "Effect of Water Molecules on the Channel Modeling in THz Band for WBANs", S. Hussein, **A. El Falou**, W. Sahyoun, Y. Ziade, R. Shubair, ICECTA2019, RAK UAE.
- "Performance Parameter Optimization of Graphene Enhanced Surface Plasmon Resonance Biosensors", M. Moussilli, **A. El Falou**, R. Shubair, APS 2019, Atlanta, USA.
- "Overview of Fiber Optic Surface Plasmon Resonance Biosensors for Medical Applications", M. Moussilli, **A. El Falou**, R. Shubair, ANTEM 2018, Waterloo, ON, Canada.
- "On the Enhancement of Surface Plasmon Resonance Biosensors by Graphene for Medical Applications", M. Moussilli, **A. El Falou**, R. Shubair, ANTEM 2018, Waterloo, ON, Canada.
- "On the Design of Graphene Surface Plasmon Resonance Sensors for Medical Applications", M. Moussilli, **A. El Falou**, R. Shubair, APS 2018, Boston, USA.
- "Real-Time Elastic Coherent Muxponder Enabling Energy Proportional Optical Transport", F. Vacondio, **A. El Falou**, et al, OFC 2013, Anaheim, USA
- "Performance comparison of MLSE-based receivers in a 1000 km transmission link under fast SOP variations", **A. El Falou**, P. Gavignet, E. Pincemin, OFC 2010, San Diego, USA
- "Fast SOP variations effects on a MLSE-based receiver performances in a 1000 km transmission link", **A. El Falou**, P. Gavignet, E. Pincemin, CLEO 2010, San Jose, USA