

Faculty C.V.

1. **Name:** Amro Nour

2. **Academic Rank:** Associate Professor (Full-Time)

3. **Degrees:**

- Doctor of Philosophy (PhD) in Electrical Engineering-Electronics and EM Antennas, CNRS-XLIM Laboratory- Ondes et Systèmes Associés/Waves and Systems (OSA), University of Limoges, Leonardo da Vinci Consolidated University, European University Association, Limoges, France
 - Graduation: January 2016
 - Major: High-Frequency Electronics, Optoelectronics, and Systems
 - Degree classification: Graduated with Highest Honors.
 - Thesis: Study, Design, and Realization of Circularly Polarized Compact Antennas. Optimization of Performances.
- Master of Engineering in Electrical and Biomedical Engineering, McMaster University, Ontario, Canada
 - Graduation: June 2011
 - Major: Communications, Biomedical, Controls, and Power
 - Degree classification: Graduated with Highest Honors.
 - Project: Cognitive Radio, Designing and Implementing a Yagi-Uda Antenna.
- Bachelor of Applied Science and Engineering, University of Toronto, Ontario, Canada
 - Graduation: June 2008
 - Major: Electrical and Computer Engineering (ECE)
 - Minor: Biomedical Engineering
 - Graduation Project: Detection of arm movement using ECOG (Awarded top project)

4. **Service at this Institution:**

American University of Kuwait (AUK) Affiliated with Dartmouth College, Hanover, New Hampshire, USA:

- Associate Professor, October 2024-present, College of Engineering and Applied Sciences.
- Assistant Professor, September 2018-September 2024, College of Engineering and Applied Sciences.

5. Professional Experience

- American University of the Middle East (AUM) Affiliated with Purdue University, Indiana, USA
 - Assistant Professor, June 2016-July 2018, College of Engineering
 - Laboratory Instructor/Teaching Assistant, January 2012-June 2016, College of Engineering
- XLIM-University of Limoges, Researcher, 2012-2016
- Caterpillar, Sales Engineer, January 2011- January 2012, Power and Sales Division
- McMaster University, TA, 2009- 2010
- ABB, Electrical/Project Engineer, September 2008- August 2009, Power Department
- University of Toronto, Tutor, 2007- 2008
- Schneider Electric, Summer Trainee Engineer 2007, Business Development Department.
- University of Toronto, Research Assistant (RA), 2006
- Caterpillar, Summer Internship 2005, Power and Sales Division

6. Professional Registration:

- Kuwait Society of Engineers-2011
- Ontario Society of Professional Engineers (OSPE)-2009

7. Publications

a) Refereed Journals:

- **A. Nour** et al, "Remaining Useful Life Predictor for EV Batteries Using Machine Learning," in IEEE Access, vol. 12, pp. 134418-134426, 2024, doi: 10.1109/ACCESS.2024.3461802.
- Sara Bunian, Meshari A. Al-Ebrahim, **Amro A. Nour**, "Role and Applications of Artificial Intelligence and Machine Learning in Manufacturing Engineering: A Review," Engineered Science, 2023, doi: [10.30919/es1088](https://doi.org/10.30919/es1088)
- Meshari A. Al-Ebrahim, Sara Bunian, **Amro A. Nour**, "Recent Machine-Learning-Driven Developments in E-Commerce: Current Challenges and Future Perspectives," Engineered Science, 2023, doi: [10.30919/es1044](https://doi.org/10.30919/es1044)
- Meshal F. Alhasan, Khaled M. Alanezi, Sabah A.S. Alali, Meshari A. Al-Ebrahim, Sara Bunian, **Amro A. Nour**, "Thermal-hydraulic characteristics of nitric acid: An experimental and numerical analysis," Heliyon, 2023, e23089, ISSN 2405-8440, <https://doi.org/10.1016/j.heliyon.2023.e23089>.

- D. Swain, V. Rupapara, **Amro Nour**, S. Satapathy, B. Acharya, S. Mishra, A. Bostani, "A Deep Learning Framework for the Classification of Brazilian Coins," in IEEE Access, doi: 10.1109/ACCESS.2023.3321428.
- Jian Huang, Arul Kulandaivel, **Amro A. Nour**, Murugan Perumal, Mohamad Reda A. Refaai, Thi Kim Yen Nguyen, "Achieving High-Efficiency LaFeO₃/CoS₂ Nanocomposite Electromagnetic Wave Absorber for X-band Stealth Applications," Surfaces and Interfaces, 2023, 103329, ISSN 2468-0230, <https://doi.org/10.1016/j.surfin.2023.103329>.
- **Amro A. Nour**, Abolfazl Mehbodniya, Julian L. Webber, Ali Bostani, Bhoomi Shah, Beknazarov Zafarjon Ergashevich, Sathishkumar K, "Optimizing intrusion detection in industrial cyber-physical systems through transfer learning approaches," Computers and Electrical Engineering, Volume 111, Part A, 2023, 108929, ISSN 0045-7906, <https://doi.org/10.1016/j.compeleceng.2023.108929>.
- Sabah A Alali, Meshari Al-Ebrahim, Sara Bunian, **Amro A. Nour**, "SMART FLOOD MONITORING SYSTEM," 2023, Journal of Southwest Jiatong University-Vol.58 (4) July, 2023, doi: 10.35741/issn.0258-2724.58.4.13
- **Nour, Amro A.**, et al. "*A Tapered Fork-Shaped Antenna With Small Ground Plane for UWB Applications.*" *IJITN* vol.13, no.1 2021: pp.13-24. <http://doi.org/10.4018/IJITN.2021010102>

b) Conferences:

- **Amro A. Nour**, "Investigating Different Coil Configurations During Magnetic Nanoparticles Hyperthermia for Prostate Cancer," 2023 Photonics & Electromagnetics Research Symposium (PIERS), Prague, Czech Republic, 2023, pp. 1285-1290, doi: 10.1109/PIERS59004.2023.10221303.
- **A. A. Nour** and F. Shubitidze, "*Alternating Magnetic Field Coils Optimization for Magnetic Nanoparticles Hyperthermia,*" 2021 IEEE 26th International Seminar/Workshop on Direct and Inverse Problems of Electromagnetic and Acoustic Wave Theory (DIPED), 2021, pp. 191-194, doi: 10.1109/DIPED53165.2021.9552299.

- **A. A. Nour** and F. Shubitidze, "*Effect of Human Conductivity Distributions during Magnetic Nanoparticles Hyperthermia*," *2021 Photonics & Electromagnetics Research Symposium (PIERS)*, 2021, pp. 462-466, doi: 10.1109/PIERS53385.2021.9694825.
- A. Jaesim, N. Siasi, M. Ababneh, M. Elkourdi and **A. Nour**, "Application-Specific Service Function Chain Provisioning in Heterogeneous Fog Networks," *2020 IEEE International Conference on Advanced Networks and Telecommunications Systems (ANTS)*, 2020, pp. 1-6, doi: 10.1109/ANTS50601.2020.9342810.
- Islam Mansour, Abdullah AlKhashan, Ali Bostani, **Amro Nour**, "*Design and Fabrication of a Dual Band Low Profile Antenna for Smart Tracking in Oil Fields*," *IET, Smart Cities Symposium 2018*.

9. Membership in Professional Societies:

- a) Institute of Electrical and Electronics Engineers (IEEE)
 - i. IEEE Microwave Theory and Technology Society.
 - ii. IEEE Communications Society.

10. Patents, Honors and awards:

- Awarded certificate of appreciation and recognition of my scholarly work at the American University of Kuwait (AUK).
- Awarded for my five years services to the American University of Kuwait (AUK).
- Awarded by AUK the AUK-Dartmouth College fellowship at Thayer School of Engineering.
- Nominated and Selected for the Best Researcher Award by the International Popular Scientist Awards.
- Awarded AUK's Collaborative Research Grant as PI.
- Obtained private and governmental grants for major national and European Union projects.
- Achieved Scholarship from XLIM-University of Limoges for postgraduate studies (PhD).
- Achieved an Entrance Scholarship from McMaster University for postgraduate studies (Master of Engineering).
- Received an award for the graduation project titled "Detection of arm movement using ECOG" as one of the top three graduation projects.
- Acquired Queen Elizabeth's Scholarship (Ontario) for maintaining excellence at the high school level.
- Awarded by Father Michael Goetz High School for outstanding performance and maintaining first-class honors.

11. Courses taught

a) Academic Courses

Fall 2018			Spring 2019		
Course No-Section	# Students	Course Name-Credits	Course No-Section	# Students	Course Name-Credits
ELEG 320-01	18	Signals and Systems-3	ELEG 320-01	23	Signals and Systems-3
ELEG 320-02	28	Signals and Systems-3	ELEG 320-03	28	Signals and Systems-3
ELEG 320-03	23	Signals and Systems-3	ELEG 220-03	27	Electric Circuits-3
ELEG 220-04	21	Electric Circuits-3	ELEG 220-04	12	Electric Circuits-3
Fall 2019			Spring 2020		
Course No-Section	# Students	Course Name-Credits	Course No-Section	# Students	Course Name-Credits
ELEG 220-03	25	Electric Circuits-3	ELEG 300-01	28	Engineering Electromagnetics-3
ELEG 220-04	14	Electric Circuits-3	ELEG 300-02	26	Engineering Electromagnetics-3
ELEG 320-01	24	Signals and Systems-3	ELEG 320-01	15	Signals and Systems-3
ELEG 320-02	28	Signals and Systems-3	ELEG 220-03	18	Electric Circuits-3
			CPEG 475	20	Senior Design Capstone I-3
Fall 2020			Spring 2021		
Course No-Section	# Students	Course Name-Credits	Course No-Section	# Students	Course Name-Credits
ELEG 220-02	20	Electric Circuits-3	ELEG 220-02	37	Electric Circuits-3
ELEG 300-01	20	Engineering Electromagnetics-3	ELEG 270-02	33	Electronics-3
ELEG 320-02	29	Signals and Systems-3	ELEG 270-03	13	Electronics-3
ELEG 480-01	27	Senior Design Capstone II-3	ELEG 300-02	13	Engineering Electromagnetics-3
ENGR 389-01	1	Special Topics-3	ELEG 270-03	13	Electronics-3
Fall 2021			Spring 2022		
Course No-Section	# Students	Course Name-Credits	Course No-Section	# Students	Course Name-Credits
ELEG 421-01, 02, 03	17	Control Systems-3	ELEG 421-01	34	Control Systems-3
ELEG 421-04, 05, 06	29	Control Systems-3	ELEG 421-02	21	Control Systems-3
ELEG 220-01	65	Electric Circuits-3	ELEG 270	24	Electronics-3
			ELEG 323	36	Measurement and Instrumentation-3
			ELEG 480	57	Senior Design Capstone II-3
Fall 2022			Spring 2023		
Course No-Section	# Students	Course Name-Credits	Course No-Section	# Students	Course Name-Credits
ELEG 421-01	42	Control Systems-3	CPEG 475-01	18	Senior Design Capstone I-3
ELEG 320-01	27	Signals and Systems-3	ELEG 320-01	27	Signals and Systems-3
ELEG 270-02	36	Electronics-3	ELEG 270-02	37	Electronics-3
Course Release Due to Grant.			CPEG 480	21	Senior Design Capstone II-3
Fall 2023			Spring 2024		
Course No-Section	# Students	Course Name-Credits	Course No-Section	# Students	Course Name-Credits
ELEG 320-01	31	Signals and Systems-3	ELEG 305	15	Introduction to Biomedical Engineering - 3
ELEG 320-02	23	Signals and Systems-3	ELEG 320-01	28	Signals and Systems-3

ELEG 323-01	12	Measurement and Instrumentation-3	ELEG 270-01	35	Electronics-3
ELEG 470-01	9	Internship in Electrical Engineering -3	ELEG 475-01	17	Senior Design Capstone I-3
CPEG 470-01	7	Internship in Computer Engineering -3			
ELEG 270-01	1	Electronics-3			
ELEG 320-03	1	Signals and Systems-3			
Fall 2024					
<u>Course No-Section</u>	<u># Students</u>	<u>Course Name-Credits</u>			
ELEG 320-01	36	Signals and Systems-3			
ELEG 320-02	14	Signals and Systems-3			
ELEG 305	7	Introduction to Biomedical Engineering - 3			
GENE 104-03	38	Scientific Inquiry -3			
CPEG 475-01	33	Senior Design Capstone I-3			

12. Other Duties

Fall 2018/Spring 2019:

- Capstone Projects Evaluation Committee - Member
- Budget Committee - Member
- Course Assessment Committee - Member
- Industry Advisory Board - Member
- Student Liaison Committee - Member
- Curriculum Guide Committee - Member
- Data Collection Committee - Member

Fall 2019/Spring 2020:

- Professional Development (PD) Committee - Member
- Grade Appeal Committee - Member
- Budget Committee - Member
- Data Collection Committee - Member
- Telecommunication and Networking student technical team - Member
- Capstone evaluation committee - Member

Fall 2020/Spring 2021:

- Research Forum - Member
- Academic Quality - Member
- Engineering Hiring Committee - Member
- Telecommunication and Networking student technical team - Member
- Capstone evaluation committee - Member

Fall 2021/Spring 2022:

- Working Group (Pedagogy and Teaching) - Chair
- Strategic Planning Advisory Committee (SPAC)-Member
- Library Committee- Member
- Adhoc Committee for ELEG Curriculum- Member
- Adhoc Committee for ABET Assessment for ELEG Program- Member
- Academic Quality- Member
- Research Forum - Member
- Committee on Research and Grants (CRG) – Member
- Data Collection Committee – Member
- Engineering Hiring Committee – Member
- Telecommunication and Networking student technical team- Member
- Capstone evaluation committee - Member

Fall 2022/Spring 2023:

- Academic Honesty Ad Hoc Committee-Established and Chair
- Library Committee- Member
- Adhoc Committee for ELEG Curriculum- Member
- Adhoc Committee for ABET Assessment for ELEG Program- Member
- Academic Quality- Member
- Research Forum - Member
- Committee on Research and Grants (CRG) – Member
- Capstone evaluation committee – Member

Fall 2023/Spring 2024:

- Institutional Review Board (IRB)- Member
- Committee on Research and Grants (CRG) – Member
- Research Forum - Member
- Resource Management and Planning Committee-Member
- Capstone evaluation committee – Member

Fall 2024/Spring 2025:

- Institutional Review Board (IRB)- Member
- Resource Management and Planning Committee-Member
- Capstone evaluation committee – Member

13. Research

Research Grants:

- Awarded AUK's Collaborative Research Grant as PI.
- Obtained private and governmental grants for major national and European Union projects.

14. Participation in Specific Programs:

- Faculty workshop by Dr. Fridon Shubitidze-Fulbright Visitor from Dartmouth College, AUK, April 2024
- Workshop on "Transformative Learning Workshop". AUK, December 2023.
- Workshop on "Backward Course Design: Your Path to a More Meaningful Learning Experience for You and Your Students". AUK, September 2023.
- Workshop on "Exploring Classroom and Authentic Assessment Techniques". AUK, September 2023.
- Workshop on "Effective Group Work Workshop". AUK, September 2023.
- Workshop on "Ethics, Integrity and Anti-corruption". AUK, May 2023.
- Workshop on "Legal Hacks: an Educator's Guide to Using AI". AUK, March 2023.
- Workshop on "Teaching for Future Skills". AUK, September 2022.
- Workshop on "Annotations for Student Engagement & Assessment". AUK, May 2022
- Workshop on "CDIO and Producing the Next Generation of Engineers." AUK, April 2022
- Workshop on "Trauma Informed Pedagogy". AUK, March 2022.
- Workshop on "Student-Centered Learning in a Disrupted Classroom". AUK, March 2022.
- Workshop on "Taking control: Shaping the (old) new workplace". AUK, January 2022.
- Workshop on "Getting and Keeping Students Engaged". AUK, December 2021.
- Workshop on "Rethinking Assessment". AUK, December 2021.
- Workshop on "PowerPoint Techniques: Creating Effective Presentations". AUK, March 2021.