

Manal K. Fattoum CV

1. Personal and Academic rank: Manal K. Fattoum, Assistant Professor, full time at Beirut Arab University (ABET Accredited)

Address: Bchamoun (Al Andalous Street). AL Tanmia –Block B, 2nd floor.
Contact: 03706617
E-Mail: m.fattoum@bau.edu.lb
Date of birth: 6 August 1979
Status: Married – 3 kids

2. Education: Degrees, discipline, institution, and date:

Ph.D., Communications & Electronics Engineering, Beirut Arab University 2020
M.S., Communications & Electronics Engineering, Beirut Arab University 2010
B.E., Communications & Electronics Engineering, Beirut Arab University, 2003

3. Academic experience

- Beirut Arab University, Assistant Professor, Sept. 2021- present, full time
- Beirut Arab University, Lecturer, Sept. 2013- June 2021, full time
- Abdel Hadi Debs Vocational and Technical Center, Instructor and Coordinator, 2007 – 2013 Full time

4. Nonacademic experience

- Executive Secretary in United Telecom Company, Mar Elias - Lebanon

5. Current membership in professional organizations

- Member in Order of Engineering Lebanon since 2012
- Member in IEEE Lebanon Region 8
- Local University Coordinator in IEEE AP/MTT/MAG Lebanon Chapter (2024-2026)
- Chair of the IEEE AP/MTT/MAG Lebanon Chapter (2026-2028)

6. Honors and Awards:

- First prize award in the Electromagnetics Day organized by the IEEE AP/MTT/MAG Chapter in 2025
- First prize award in IBDA'24 research with innovation track organized by the American University of Beirut in 2024
- First prize award in the Electromagnetics Day organized by the IEEE AP/MTT/MAG Chapter in 2024
- First prize award in the Electromagnetics Day organized by the IEEE AP/MTT/MAG Chapter in 2023

7. Service activities

Manal K. Fattoum CV

- 2026-2027 Graduate Studies Committee member- Beirut Arab University
- 2025-2026 Research Committee member – Beirut Arab University
- 2023-2025 Student Activities Committee member-Beirut Arab University
- 2021-2022 Security for the Engineering Faculty Council
- 2016-2017 Library Committee member-Beirut Arab University

8. Experience Courses (Undergraduate level)

I. Common Courses

- Linear Algebra
- Differential Equations
- Numerical Analysis

II. Core Courses

- Communication Theory & Systems I
- Communication Theory & Systems II
- Propagation & Antennas I
- Propagation & Antennas II
- Instrumentation

III. Technical Elective Courses

- Advanced Antenna Design

IV. University Elective Courses

- Work Ready Now

9. Research Interests

- Compact Microstrip Patch Antennas for different applications
- Radio Frequency devices

10. References:

- Prof. Ziad Osman z.osman@bau.edu.lb (+9613836089)
- Prof. Soubhi Abou Chahine achahine@bau.edu.lb (+9613835178)

11. Rank Link: Assistant Professor

<https://www.bau.edu.lb/Staff/Engineering/Academic>

12. Publications

- Fattoum, M. K., Heba El-Halabi, Sarah M. Ibrahim, H. Al Khatib, N. A. Hajir, and Ziad F. Doughan. 2026. "AI-Driven RF Detection of Solutes in Water." *IEEE Access* 14, 2026. doi: 10.1109/ACCESS.

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- M. K. Fattoum, S. M. Joujou, S. M. Ibrahim and H. El-Halabi, "Compact 5G Broadband Antenna for Sub-6 GHz Wireless Applications," in IEEE Access, 2 May, 2025. doi: 10.1109/ACCESS.2025.3566448.
- A. Daher, M. Ayache, H. EL-Halabi, M. K. Fattoum and O. Hajj, "Wireless Healthcare Monitoring System for Heart Diseases Classification using Efficient ECG-Based Wave Modeling and Machine Learning Techniques," 2023 Fifth International Conference on Advances in Computational Tools for Engineering Applications (ACTEA), Zouk Mosbeh, Lebanon, 2023, pp. 19-24, doi: 10.1109/ACTEA58025.2023.10193969.
- Heba EL-Halabi; Manal K. Fattoum; Malek Khatib; "Dual Band Circular Patch Antenna for GPS and WiMAX Applications", 2023 IEEE 3rd International Maghreb Meeting of the Conference on Sciences and Techniques of Automatic Control and Computer Engineering (MI-STA), Benghazi, Libya 21-23 May 2023.
- Heba El-Halabi; Hasan Moughnieh; Lynn El Nakouzi; Nabil Harb; Omar Kabbani; Manal K. Fattoum; "Compact Dual Band Branch Line Coupler for Wireless Applications", 2023 IEEE 3rd International Maghreb Meeting of the Conference on Sciences and Techniques of Automatic Control and Computer Engineering (MI-STA), Benghazi, Libya 21-23 May 2023.
- Heba El-Halabi, Manal Fattoum" Dual Band Branch-Line Coupler using Stub-Loaded Lines ", 6th International Conference on Technology, Engineering and Science (IConTES2022), Antalya, Turkey, November 16-19, 2022
- Manal Fattoum, Hamza Issa, Soubhi Abou Chahine, Ali Almutairi, "Design of Slow Wave Microstrip Patch Antenna Array", International Journal of Engineering Research and Technology (IJERT), July 2019
- SENSET 2017 "International conference on Sensors, Networks, Smart and emerging technologies " -IEEE technically Co-sponsored

11. Professional development activities in the last five years

- AI Starter kit Professional Certificate from the American University of Beirut, 2025
- Professional AI & DataScience Diploma from the American University of Beirut, 2025
- Work Ready Now certificate, course reflection workshop Feb. 2024, HECD in collaboration with USAID
- Online instruction Design certificate, workshop Sept. 2022, HECD and FSCJ in collaboration with USAID
- Work Ready Now certificate, workshop Dec. 2021, HECD in collaboration with USAID