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Education

2004-2008 *Royal Institute of Technology (KTH)*, Sweden
Ph.D. in Electronic and Computer Systems
within the RaMSiS group with research focus on *frequency synthesizers* for multi-standard wireless applications and hardware solutions for *vertical handover* in 4G systems

2001-2003 *Royal Institute of Technology (KTH)*, Sweden
Masters of Science in Electrical Engineering
with the specialization in System-on-Chip Design

1997-2001 *American University of Beirut (AUB)*, Lebanon
Bachelor of Engineering (With Distinction) in Computer and Communications Engineering

Employment

2025-present *American University of Beirut (AUB)*, Lebanon
Assistant Professor
Department of Electrical and Computer Engineering

2009-2024 *Notre Dame University - Louaize (NDU)*, Lebanon
Associate Professor
Department of Electrical, Computer and Communication Engineering

Editor

- Springer, International Journal of Analog Integrated Circuits and Signal Processing - Member of the Board.

Technical Reviewer

- IEEE - Transactions on Circuits and Systems I (TCAS-I)
- IEEE Access
- Springer - Analog Integrated Circuits and Signal Processing Journal
- IEEE - Internet of Things Magazine
- Elsevier - Integration, The VLSI Journal
- Elsevier/EVISE - International Journal of Electronics and Communications (AEÜ)
- IEEE - Vehicular Technology Conference (VTC)
- IEEE - International Symposium on Circuits and Systems (ISCAS)
- IEEE - International Conference on Electronics, Circuits and Systems (ICECS)
- IEEE - International Conference on Microelectronics (ICM)
- IEEE - International Midwest Symposium on Circuits and Systems (MWSCAS)
- IEEE - International Northeast Workshop on Circuits and Systems (NEWCAS)
- European Conference on Circuit Theory and Design (ECCTD)
- European Workshop on Microelectronics Education (EWME)
- Symposium on Integrated Circuits and Systems Design (SBCCI)
- IEEE - International Conference on Smart Systems and Power Management (IC2SPM)
- IEEE - International Multidisciplinary Conference on Engineering Technology (IMCET)
- ARAB ICT Conference (AICTC)
- International Conference on Advances in Computational Tools for Engineering Applications (ACTEA)
- International Conference on Computer and Applications (IEEE/ICCA)
- IEEE - International Conference on Emerging Trends in Engineering and Computing (ETECOM)
- IEEE - Mediterranean Electrotechnical Conference (MELECON)

Research and Publications

Books:

- Atallah, J. G. & Ismail, M. (2024). Integrated Electronic Circuits. New York: Springer, ISBN 978-3-031-62706-4.
- Atallah, J. G. & Ismail, M. (2012). Integrated Frequency Synthesis for Convergent Wireless Solutions. New York: Springer, ISBN 978-1-4614-1465-0.

Educational Material:

- Saber, R., Kordahi, R. & Atallah, J. G. (2024). Cadence Virtuoso Education Kit: Fundamentals of Analog Simulation and Layout. Cadence Academic Network. Available at: https://www.cadence.com/en_US/home/company/cadence-academic-network/educators/virtuoso-kit.html
- Der Yeghiayan, R. & Atallah, J. G. (2022). Cadence Virtuoso Education Kit: Fundamentals of Analog Simulation and Layout. Cadence Academic Network.
- Der Yeghiayan, R. & Atallah, J. G. (2020). Virtuoso Version 6.1.7: Tutorial v. 4. Cadence Academic Network.
- Yammine, J., Skaff, E., Daou, R. & Atallah, J. G. (2019). Virtuoso Version 6.1.7: Tutorial v. 3. Cadence Academic Network.
- Chaccour, C. & Atallah, J. G. (2016, 2018). Virtuoso Version 6.1.7: Front-End Tutorials v. 1 and v. 2. Cadence Academic Network.

Journal Articles:

- El Mokdad, M., Salameh, E. & Atallah, J. G. (2023). A switched-capacitor based track-and-hold amplifier suitable for PAM4 signaling in 45-nm CMOS. *Analog Integrated Circuits and Signal Processing, An International Journal*, Springer, Vol. 115, pp. 293-305.
- Alwan, E. M., Balasubramanian, S., Atallah, J. G., LaRue, M., Sertel, K., Khalil, W. & Volakis J. L. (2014). Coding-based ultra-wideband digital beamformer with significant hardware reduction. *Analog Integrated Circuits and Signal Processing, An International Journal*, Springer, Vol. 78, pp. 691-703.
- Bou Sleiman, S., Atallah, J. G., Rodriguez, S., Rusu, A. & Ismail, M. (2010). Optimal Sigma-Delta Modulator Architectures for Fractional-N Frequency Synthesis. *IEEE Transactions on Very Large Scale Integration (VLSI) Systems*, Vol. 18, Issue 2, pp. 194-200.
- Rodriguez, S., Atallah, J. G., Rusu, A., Zheng, L. R. & Ismail, M. (2008). ARCHER: An Automated RF-IC Rx Front-End Circuit Design Tool. *Journal of Analog Integrated Circuits and Signal Processing (Online)*.
- Atallah, J. G. & Ismail, M. (2006). Future 4G Front-Ends Enabling Smooth Vertical Handovers. *IEEE Circuits and Devices Magazine*, Vol. 22, pp. 6-15.

Conference Proceedings:

- Der Yeghiayan, R., Salameh, E., El Mokdad, M. & Atallah, J. G. (2022). 45nm CMOS Two-Stage Latched Comparator. *IEEE International Conference on Smart Systems and Power Management, IC2SPM*.
- Atallah, J. G. (2018). EDA Tools Usage and Tutorial Authoring for Basic Electronic Circuits Education. *EWME 2018*.
- Atallah, J. G. (2017). Undergraduate Peer-to-Peer Tutorial Authoring. *CDNLive EMEA 2017*.
- Atallah, J. G. (2014). Revisiting the Education in Basic Electronic Circuits. *CDNLive EMEA 2014*.
- Alwan, E.A., Balasubramanian, S., Atallah, J.G., Larue, M., Sertel, K., Khalil, W. & Volakis, J.L. (2013). Ultra-wideband Digital Beamformer with Significant SWAP-C Reduction. *Wireless Innovation Forum Conference on Communications Technologies and Software Defined Radio, SDR-WInnComm*, best paper award.
- Alwan, E.A., Balasubramanian, S., Atallah, J.G., Larue, M., Khalil, W., Sertel, K. & Volakis, J.L. (2012). Coding-Based Transceiver for Phased Array with Significant Hardware Reduction. *IEEE International Conference on Wireless Information Technology and Systems, ICWITS*.
- Atallah, J. G. (2012). Cadence Tools in Undergraduate Education. *CDNLive! EMEA 2012*, pp. 17-21.
- Rodriguez, S., Atallah, J. G., Rusu, A. & Ismail, M. (2010). A 2.3-GHz to 5.8-GHz CMOS Receiver Front-End for WIMAX/WLAN. *17th IEEE International Conference on Electronics, Circuits and Systems, ICECS*, pp. 1068-1071.
- ElChabb, R., Khattar, F., Bassoul, G., ElMurr, S. & Atallah, J. G. (2010). RT-VED: Real Time Voice Encryption/Decryption. *ISECS International Colloquium on Computing, Communication, Control, and Management, CCCM*.
- Rogers, A. M., Atallah, J. G. & Ismail, M. (2009). Digital Self-Aware Charge Pump Calibration Technique for Frequency Synthesizers. *16th IEEE International Conference on Electronics, Circuits and Systems, ICECS,* pp. 743-746.
- Bou Sleiman, S., Atallah, J. G., Rodriguez, S., Rusu, A. & Ismail, M. (2008). Wide-Division-Range High-Speed Fully Programmable Frequency Divider. *Joint IEEE NEWCAS and TAISA*, pp. 17-20.
- Atallah, J. G., Rodriguez, S., Zheng, L. R. & Ismail, M. (2007). A Direct Conversion WiMAX RF Receiver Front-End in CMOS Technology. *International Symposium on Signals, Circuits and Systems, ISSCS*, pp. 37-40.
- Bahramirad, S., Atallah, J. G. & Albrecht, S. (2007). A Low Phase Noise VCO for Multi Band Wireless Transceivers. *International Conference on Design & Technology of Integrated Systems in Nanoscale Era, DTIS*, pp. 148-153.

- Zongyang, Z., Atallah, J. G., Rusu, A. & Ismail, M. (2007). Vertical Handover for 4G Multi-Standard Wireless Transceivers. *14th IEEE International Conference on Electronics, Circuits and Systems, ICECS*, pp. 1356-1359.
- Atallah, J. G., Michielsen, W. & Ismail, M. (2005). A Frequency Planning and Generation Scheme for Multi-Standard Wireless Transceivers. *12th IEEE International Conference on Electronics, Circuits and Systems, ICECS*.
- Atallah, J. G. & Ismail, M. (2003). A CMOS Frequency Synthesizer for Multi-Standard Wireless Devices. *46th IEEE International Midwest Symposium on Circuits and Systems, MWSCAS*, Vol. 3., pp. 1138-1141.