NOTRE DAME UNIVERSITY
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جامعة سيدة اللويزة
GAUDIUM DE VERITATE

Jad G. Atallah

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Biography

Dr. Atallah received the Ph.D. degree in Electronic and Computer Systems in 2008 within the RaMSiS group from The Royal Institute of Technology (KTH), Sweden. In 2012, he was a visiting researcher at the ElectroScience Laboratory (ESL), Center of Excellence, Department of Electrical and Computer Engineering, The Ohio State University (OSU), USA. Dr. Atallah has taught regular and specialized courses in the fields of advanced wireless communications radio design and low power analog and mixed-mode circuit and system design. His current research interests are in robust and low-power mm-wave/RF/analog/mixed-signal designs for wireless and optical communications as well as in undergraduate education in IC design. Dr. Atallah is a board member of the Springer International Journal of Analog Integrated Circuits and Signal Processing as well as an editorial board member of the Frontiers in Communications and Networks. He is a technical reviewer for more than five international journals. Dr. Atallah co-authored a book on frequency synthesizers for convergent wireless solutions published by Springer as well as educational material targeting the Cadence Design Systems Virtuoso tools within the context of the Cadence Academic Network.

Courses

- EEN 202 Circuits Analysis II
- EEN 206 Electronics
- EEN 310 Electronic Circuits I
- EEN 311 Electronic Circuits II
- EEN 344 Communication Systems I
- EEN 443 Communication Systems II
- EEN 473 Special Topics in Electrical Engineering: RF Transceiver Design
- EEN 473 Special Topics in Electrical Engineering: Low Power Analog and Mixed-Signal Integrated Circuits
- EEN 489 Approved Professional Training
- EEN 548 Wireless Communications
- EEN 598/599 Engineering Design

Recent Projects

- 2019-present: Open collaboration with the Houmal Technology Park SAL, Lebanon
- 2018-present Integrated electronic circuit design education material for undergraduate students, Wayne State University, USA

- 2016-present IC design tutorials using EDA tools for undergraduate students Cadence Design Systems

Books

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

Educational Material

- 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

- 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

- 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.

Presentations and Interviews

- Invited speaker at the Houmal Technology Park SAL, February, 2020.
- Invited panel member at the Cadence CDNLive EMEA, April, 2015. This was followed by an interview that can be accessed here:
  Part 1: https://www.youtube.com/watch?v=-wHIDUqzNnE
  Part 2: https://www.youtube.com/watch?v=9i3Dv4dPXG8
  Part 3: https://www.youtube.com/watch?v=8mEoDJNXJJg
  Part 4: https://www.youtube.com/watch?v=kypmCbzMz9Y
  Part 5: https://www.youtube.com/watch?v=Hm7QsMZwdq0
  Part 6: https://www.youtube.com/watch?v=Z8F0k-gLCzs
- Invited panel member at the Ericsson Innovation Day, July 2011
- Invited speaker at Intel, Arizona, June 2006

Service Committees

- Member of the ABET Outcome Assessment Committee of the CCE and EE programs at NDU (2018-present)
- Strategic plan coordinator of goal II, objective 7, "Pursue the institutional accreditation process with NEASC", at NDU (2015-present)
- Member of the University Information Committee at NDU (2013-2017)
- Member of the ABET accreditation committee of the CCE program at NDU (2010-2014)
- Chair of the ABET accreditation committee of the CCE program at NDU (2012-2014)
- Member of the ABET accreditation FE Outcome Assessment Committee at NDU (2012-2014)

Event Organization Committees

- Technical program committee member of the IEEE Vehicular Technology Conference (VTC2020-Spring), 2020
- Technical program committee member of the IEEE International Conference on Microelectronics (ICM), 2017, 2019
- Program committee member and Session Chair in the 12th European Workshop on Microelectronics Education (EWME), 2018
- Organizing committee member and jury member of the Ericsson "Universities Wireless Course", 2015
- Technical program committee member of the 13th IEEE Mediterranean Microwave Symposium (MMS), 2013
- Organizing committee member of the 2nd International Conference on Advances in Computational Tools for Engineering Applications (ACTEA), 2012
- Organizing committee member of the 18th IEEE International Conference on Electronics, Circuits, and Systems (ICECS), 2011
- Co-organized the 6th RaMSiS Summer School with the title Next Generation Mobile Communications: Chipset Design and Applications that took place at NDU, Lebanon, in July 2010