Ehab Ahmed Sobhy Abdelghany

CONTACT INFORMATION

eh_sobhy@cu.edu.eg

PROFESSIONAL EXPERIENCE

- 6 years of industrial experience in RFIC design for most advanced multi-standard, multi-band, and multi-mode cellular transceiver with a high volume production. Hundreds of millions of high-end transceivers shipped to the leading phone-makers
- Submitted and implemented 10 key patents for cellular transceivers (including carrier aggregation) that are used in millions of ICs.

EDUCATION

- **Texas A&M University,** College Station, Texas, USA

Department of Electrical and Computer Engineering, Analog and Mixed Signal Center

PhD in Electrical Engineering, December, 2012

- Dissertation: "Linearity and Noise Improvement Techniques Employing Low Power in Analog and RF Circuits and Systems"
- GPA: 4.0/4.0
- Chair of Advisory Committee: Dr. Sebastian Hoyos
- Committee: Edgar Sanchez-Sinencio, Laszlo B. Kish, and Mahmoud El-Halwagi

- **Cairo University,** Giza, Egypt

Department of Electronics and Electrical Communications

M.Sc. in Electrical Engineering, January, 2007

- Thesis: "Inverting and Fully Differential Current Conveyors and Applications Suitable for VLSI"
- Chair of Advisory Committee: Prof. Dr. Ahmed Soliman

- **Cairo University,** Giza, Egypt

Department of Electronics and Electrical Communications

B.Sc. in Electrical Engineering, July, 2004

- GPA: 3.94/4.0, *ranked 1st out of 500*
- Undergraduate Senior Project: "32bit Pipelined Microprocessor Design: Sparc Architecture"

PATENTS

- Low Cost CA LNA Topology with Dual Gain Support **(Granted)**
- A single-input-multi-output LNA that support simultaneous multiple gain mode **(Granted)**
- A Spur Mitigation Technique in Concurrent CA Operation using Programmable and Distributed Bypass Capacitors **(Granted)**
- A Method to Improve the Inter CA Isolation in an LTE-A Receiver **(Granted)**
- An Area efficient Method of L-degenerate Design for Noise Cancellation in LNAs that support Intra Carrier Aggregation **(Granted)**
- Methods to Improve the Negative CDM Performance for Nanometer CMOS RFICs
- A Notch XFMR Design to Reject OOB Jammer **(Granted)**
- A Method to Route the Primary and Diversity Receiver with Enabling Carrier Aggregation **(Granted)**
- A Method to Lower the Current Consumption in L-degenerate LNA Implemented Using RC Network **(Granted)**
- Dual gain control LNA/Rx chain **(Granted)**

PUBLICATIONS

- X. Chen, **E. A. Sobhy**, Z. Yu, S. Hoyos, J. Silva-Martinez, S. Palermo, and B. M. Sadlar, "A Sub-Nyquist Rate Compressive Sensing Data Acquisition Front-End ", *IEEE Journal on Emerging and Selected Topics in Circuits and Systems*, Oct. 2012
- **E. A. Sobhy**, A. Helmy, S. Hoyos, K. Entesari and E. Sánchez-Sinencio, "A 2.8 mW Sub-2 dB Noise Figure Inductorless Wideband CMOS LNA Using Double Capacitive Cross-Coupling and Positive Feedback", *IEEE Trans. on Microwave Theory and Techniques*, Oct. 2011
- **E. A. Sobhy**, S. Pentakota, and S. Hoyos, "Bandwidth Optimization of OFDM Low-Order Multi-Channel Filter Banks Receivers for Achieving Clock-Jitter-Robustness", *IET Circuits and Systems*, Sept. 2011

• S. Hoyos, S. Pentakota, Z. Yu, **E. Sobhy**, X. Chen, R. Saad, S. Palermo, and J. Silva-Martinez, "Clock-Jitter Tolerant Wideband Receivers: An Optimized Multi-Channel Filter-Bank Approach", *IEEE Transactions on Circuits and Systems I*, Feb. 2011.
• **E. A. Sobhy** and S. Hoyos, "A Multi-Phase Multi-Path Technique with Digital Phase Shifters for Harmonic Distortion Cancellation", *IEEE Trans. on Circuits and Systems II*, Dec. 2010.
• **E. A. Sobhy** and A. M. Soliman, "Realizations of Fully Differential Voltage Second Generation Current Coveyors", *International Journal of Circuit Theory and Applications*, June 2010.
• **E. A. Sobhy**, S. Hoyos, and E. Sánchez-Sinencio, "High-PSRR Low-Power Single Supply OTA", IET Electronic Letters, March 2010.
• **E. A. Sobhy** and A. M. Soliman, "Novel CMOS Realization of Balanced Output Inverting Third-Generation Current Conveyor with Applications", *Circuits, Systems and Signal Processing*, Dec. 2009.
• **E. A. Sobhy** and A. M. Soliman, "New CMOS Realizations of the Inverting Second-Generation Current Conveyor and Applications", *Analog Integrated Circuits and Systems*, Aug. 2007.

HONORS AND AWARDS

• Research assistantship from Texas A&M University 2009-2011.
• Fellowship from Texas A&M University in January 2008.
• The best master thesis award from the Faculty of Engineering, Cairo University in March 2008.
• Faculty's award for being the best teacher assistant, Cairo University in 2005
• Faculty's award of excellence during all years of my undergraduate studies, Cairo University 2000-2004
• "Schlumberger" Undergraduate Award for being ranked first out of 500 students

TEACHING EXPERIENCE

• **Dept. of Electronics and Communication Engineering, Cairo University Oct 2004 – Dec 2007**
Assisted in teaching Electronics and Communications courses and labs for junior and senior students
• **Dept. of Electronics Engineering, American University in Cairo Sep 2005 – May 2007**
Assisted in teaching Electronics courses for junior and senior students.

PROFESSIONAL ACTIVITY

President, Egyptian Student Association at Texas A&M University, 2010-2011
Reviewer, IEEE Transaction on Circuits and Systems I, II
Reviewer, IEEE Transaction on Microwave Theory and Techniques
Reviewer, Analog Integrated Circuits and Signal Processing, Springer
Reviewer, IEEE International Midwest Symposium on Circuits and Systems