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Google Scholar: <https://scholar.google.com/citations?user=JWQivpgAAAAJ&hl=en>



Objective Seeking a challenging opportunity in industry, academia, or research-oriented centers through which I can utilize my skills, enrich my academic knowledge, and participate in sponsored research projects.

Professional Experiences and Positions ***June 2020 to Date***, Associate Professor, Electrical Engineering Department, Faculty of Engineering, Assiut University (<https://www.aun.edu.eg/>), Assiut, Egypt.

Head, Information Technology Unit, Faculty of Engineering, Assiut University, Assiut, Egypt.

Part Time Associate Professor, Electrical Engineering Department, Higher Institute of Engineering and Technology (<https://hiet-sohag.edu.eg/>), Sohag, Egypt

Preparing and teaching several electrical engineering courses (post-grade and undergraduate) and supervising experimental educational labs Beside supervising graduate students and participating in research sponsored projects.

April 2015 to June 2020, Assistant Professor, Electrical Engineering Department, Faculty of Engineering, Assiut University, Assiut, Egypt.

Part Time Assistant Professor, Electrical Engineering Department, Faculty of Engineering, Sohag University, Sohag, Egypt.

Courses Taught (In addition to Electrical Engineering core courses)

- Advanced CMOS Analog ICs Design (Post Grad. Students)
- Advanced RFICs Design (Post Grad. Students)
- Advanced Semiconductor Devices (Post Grad. Students)
- Advanced Digital Systems Design using VHDL (Post Grad. Students)
- Design of Electronic Circuits using Computer (Post Grad. Students)
- The Art of Layout and Physical Design (Post Grad. Students)
- Electronic Devices and Circuits (Biomedical Eng. Prog.)
- Electronics I – 1st Year
- Electrical Materials Properties – 1st Year
- Electronics II - 2nd Year
- Digital Circuits Design – 2nd Year
- Electronics III - 3rd Year (Electronics and Communications Division)
- Digital Systems and C Programming – 3rdYear(Electronics and Communications Division)
- Very Large-Scale Integration and ICs – 3rd Year (Electronics and Communications Division)
- Electronic Circuits I - 3rd Year (Electronics and Communications Division)
- Electronic Circuits II – 4th Year (Electronics and Communications Division)
- Embedded Systems – 4th Year (Mechatronics Division, Mechanical Engineering Dept.)

Supervision

- Different and Multi-disciplinary Graduation Projects.
- Electrical Testing Labs - 1st Year
- Electrical Testing Labs - 2nd Year
- Electrical Testing Labs- 3rd Year (Elec. and Comm. Engineering Division)
- Electrical Testing Labs – 4th Year (Elec. and Comm. Engineering Division)

April 2017 to March 2019, Post-Doctoral Fellow, Bio-Circuits and Systems Lab (BiCASL) (<https://bicasl.sjtu.edu.cn>), Shanghai Jiao Tong University, Shanghai, China.

- Leading a research team to design, simulate, and verify an Event-Driven Wireless Transceiver for Biomedical Applications
- Supervising Post-Graduate Students Designing Biomedical Circuits and Systems
- **Teaching**
 - Advanced Analog Integrated Circuits Design (Post-Grad. Students).
 - The Art of Layout and Physical Design (4th Year and Post-Grad. Students).
- **Supervisor of Following Research Projects**
 - Event-Driven Wireless Transceiver for Biomedical Applications.
 - A Low Power Wireless Transceiver for Tire Pressure and Human Safety.
 - Neuromorphic Circuits Implementation using Memristors.

Sept. 2016 to March 2017, Post-Doctoral Researcher [Senior RFIC/Analog Design Engineer], ASIC Solutions Dept., Si-Ware Systems (SWS) (<https://www.si-ware.com>), Cairo, Egypt.

Design, Simulation and Verification of

- High Efficiency Class E Power Amplifier for Wireless Sensor Networks Applications
- Charge Balanced Stimulator Circuit for Biomedical Implants

Feb. 2010 to Feb. 2015, Research Assistant, Electronics and Communications Engineering Department, Egypt-Japan University of Science and Technology (E-JUST), Alexandria, Egypt

Sept. 2013 to June 2014, Research Student, E-JUST Center, Kyushu University, Japan

- **Research Topic:** CMOS front-end RF Transceiver Design
- **Research Point:** Design of Ultra-Wideband Low Noise Amplifier (UWB-LNA) and Multi-Phase Ring Oscillators (ROs)

The research process includes making a literature survey on RF design and its hot spots, proposing a new design suitable for Low Noise Amplifier and Multi-Phase Ring Oscillator implementations, simulation and verification of the proposed ideas, layout the proposed work and verification through measurement after fabrication.

Sep. 2008 to Jan. 2010, Teaching Assistant, Department of Electrical Engineering, Assiut University, Assiut, Egypt

Preparing and teaching laboratories and exercise sessions for Electronic Basics, Electrical Circuits Design and Analysis.

Education and Achievements

- **Ph.D. in Electronics and Communications Engineering, Egypt-Japan university of Science and Technology (E-JUST) (<https://ejust.edu.eg>), Egypt, February 2015.[in cooperation with ISEE School, Kyushu University, Fukuoka, Japan]**

CGPA: 3.71 out of 4.0
Dissertation: Ultra-Wideband Low Noise Amplifier and Multi-Phase Ring Oscillator Design Using CMOS Technology.
- **M.Sc. in Electronics and Communications Engineering, Egypt-Japan university of Science and Technology (E-JUST) (<https://ejust.edu.eg>),Egypt, February 2012.[in cooperation with ISEE School, Kyushu University, Fukuoka, Japan]**

CGPA: 3.52 out of 4.0
Dissertation: CMOS Ultra-Wideband Low Noise Amplifier Design
- **B.Sc. in Electronics and Communications Engineering, Assiut University (<https://www.aun.edu.eg>), Egypt, June 2008.**

Grade:Distinction with honor. Ranked “**First**” among the 2008 graduating class

 - **Graduation Project:** Portable Wireless ECG Monitoring System over Data Call
 - **Grade:** Excellent

Research Interests

Design, Simulation, Verification, and Measurement of

- **VLSI Mixed (Analog/Digital) Systems**
- **Biomedical Integrated Circuits and Systems**
- **Radio Frequency Integrated Circuits**
- **Analog Circuits for Microwave Range**
- **Ultra-Wideband Transceiver Front-End**
- **Electronic Devices Modeling and Utilization**
- **Passive Integrated RFICs Components**
- **Renewable Energy and Photo-Voltaic Systems**

Publications

Patents :-

- [1] **K. Yousef**, G. Wang, and Yong Lian, "A Novel Free-running Edge-Injector for High FoM and Low Phase Noise Ring Oscillator Design in GHz Band of Frequency," *Submitted* to Chinese Patents Authentication Agency.

Thesis Publications :-

- [2] M. Adel, **K. Yousef**, and U. Sayed, "Low Power Ultra-Wideband Low Noise Amplifier Design for Biomedical Applications," *In Progress*, Assiut University Press.
- [3] A. Elsayed, **K. Yousef**, M. Atef, and M. Abdelgawad, "Design and Simulation of Wide Dynamic Range Low Noise CMOS Image Sensors using Photogates as Photodetector,:" Assiut University Press, Oct. 2019.
- [4] **K. Yousef**, "Ultra-Wideband Low Noise Amplifier and Multi-Phase Ring Oscillator Design Using CMOS Technology," E-JUST Press, Feb. 2015.
- [5] **K. Yousef**, "CMOS Ultra-Wideband Low Noise Amplifier Design," E-JUST Press, Feb. 2012.

Journal Publications :-

- [6] **K. Yousef** and G. Wang, "Design and Implementation of High Inductances 3D Integrated Inductors with High Quality Factors," *In Progress, Dedicated* for publication in Analog Integrated Circuits and Signal Processing.
- [7] **K. Yousef**, R. Pokharel, and G. Wang, "A 20 ps Group Delay and 2.8 dB NF Current Reuse Ultra-Wideband Low Noise Amplifier," *rejected and invited for resubmission* to Microwave and Optical Technology Letters. (IF: 0.958)
- [8] **K. Yousef**, Y. Li, and G. Wang, "A Synchronized Double Edge-Injection and Low Phase Noise Ring Oscillators Design for sub-GHz ADPLL Applications," *Submitted* to IEEE TCASII: Express Briefs. (IF: 3.25)
- [9] Zh. Xiao, **K. Yousef**, and G. Wang, "A Reference-less Energy-Efficient Relaxation Oscillator with no Static Current Consumption," *resubmitted, Major Revision* to IEEE Transactions on Very Large Scale Integration (VLSI) Systems.
- [10] Y. Hou, Q. Jiali, Z. Tian, M. Atef, **K. Yousef**, G. Wang, and Y. Lian, "A 61 nW Level-Crossing ADC with Adaptive Sampling for Biomedical Applications," IEEE Transactions on Circuits and Systems II: Express Briefs, vol. 66, no. 1, Jan. 2019, pp. 1390-1394. (IF: 3.25)
- [11] Z. Luo, G. Wang, **K. Yousef**, B. Lau, Y. Lian, and C. Heng, "A 0.0129 mm² DPLL with 1.6~2.0 ps RMS Period Jitter and 0.25-to-2.75 GHz Tunable DCO Frequency Range in 55-nm CMOS," IEEE Transactions on Circuits and Systems II: Express Briefs, vol. 65, no. 12, Dec. 2018, pp. 1844-1848. (IF: 3.25)
- [12] Y. Hou, **K. Yousef**, M. Atef, G. Wang, and Y. Lian, "A 1-to-1-kHz, 4.2-to-544-nW, Multi-Level Comparator Based Level-Crossing ADC for IoT Applications," IEEE Transactions on Circuits and Systems II: Express Briefs, vol. 65, no. 10, Oct. 2018, pp. 1390-1394. (IF: 3.25)
- [13] **K. Yousef**, H. Jia, R. et al., "A -193 FoM and -126 Phase Noise Octagonal Ring Oscillator Using Pulse Injection Technique," Microwave and Optical Technology

letters, vol.58, no.7, pp 1760-1762, July 2016. (IF: 0.958)

- [14] **K. Yousef**, H. Jia, A. Allam, et al., “ A Low Phase Noise CMOS Ring Oscillator Using Phase Modulation and Pulse Injection Techniques,” *IEICE Technical Report*, vol. 114, no. 45, MW2014-40, pp. 95-98, May 2014.
- [15] **K. Yousef**, H. Jia, R. Pokharel, et al., “CMOS Ultra-Wideband Low Noise Amplifier Design,” *International Journal of Microwave Science and Technology*, vol. 2013, Article ID 328406, 6 pages, 2013. doi:10.1155/2013/328406. (IF: 0.197)

Conference Publications:-

- [16] M. Adel, **K. Yousef**, and U. Sayed, “A 0.65 Noise Amplifier for Biomedical Applications Using Forward Body Bias Technique,” *Submitted* to 2022 International Japan-Africa Conference on Electronics, Communications, and Computers (JAC-ECC 2022).
- [17] A. Sayed, **K. Yousef**, M. Atef, and M. Abdelgawad, “ On the Design and Simulation of Wide Dynamic Range and Low Noise CMOS Image Sensors Using Photogates as Photodetectors,” *Submitted* to 2022 International conference on innovative trends in computer Engineering (ITCE 2022).
- [18] **Khalil Yousef**, “A High FoM Down Conversion Mixer with a Boosted Conversion Gain for IEEE 802.11b and IEEE 802.15.4 Standards,” *Proceedings of 2019 International Japan-Africa Conference on Electronics, Communications, and Computers (JAC-ECC 2019)*. pp. 182-184, Dec. 2019
- [19] H. Tao, **K. Yousef**, J. Jing, and G. Wang, “A High Conversion Gain Wideband Mixer Design for UWB Applications,” *Proceedings of 2019 IEEE International Symposium on Circuits and Systems (ISCAS 2019)*, pp. 1-4.
- [20] M. AbdelHafeez, **K. Yousef**, M. AbdelRaheem, E. Khaled, “Design of 6 GHz High Efficiency Long Range Wireless Power Transfer System Using Offset Reflectors fed by Conical Horns,” *Proceedings of 2019 International Conference on Innovative Trends in Computer Engineering (ITCE 2019)*, pp. 365-370.
- [21] Y. Hou, Q. Jiali, Z. Tian, M. Atef, **K. Yousef**, G. Wang, and Y. Lian, “ A 61 nW Level-Crossing ADC with Adaptive Sampling for Biomedical Applications,” *2018 International-Solid-States-Circuits-Conference (ISSCC 2018), Student Research Preview (SRP)*.
- [22] **Khalil Yousef**, “A Low Phase Noise, High Figure of Merit, 3.1 GHz- 3.5GHz Ring Oscillator Using Edge Injection Technique”, *Proceedings of 2017 International Japan-Africa Conference on Electronics, Communications and Computer Engineering (JAC-ECC 2017)*, pp. 37-40.
- [23] **K. Yousef**, H. Jia, R. Pokharel, et al., “A 0.18 μm CMOS Current Reuse Ultra-Wideband Low Noise Amplifier (UWB-LNA) with Minimized Group Delay Variations,” *Proceedings of 44th European Microwave Conference (EuMC 2014)*, pp. 1392-1395.
- [24] **K. Yousef**, H. Jia, R. Pokharel, et al., “A 0.18 μm CMOS Current Reuse Ultra-Wideband Low Noise Amplifier (UWB-LNA) with Minimized Group Delay Variations,” *Proceedings of 9th European Microwave Integrated Circuits Conference (EuMIC 2014)*, pp. 448-451.
- [25] A. Anand, N. Jana, **K. Yousef**, and R. Pokharel, “Wideband Injection Locked CMOS Quadrature Ring Oscillator with Small Phase Errors,” *Proceedings of 2014 Korea-Japan Microwave Workshop (KJMW)*, Dec. 2014.
- [26] **K. Yousef**, H. Jia, A. Allam, et al., “An Eight Phase CMOS Injection Locked Ring Oscillator with Low Phase Noise,” *Proceedings of 2014 IEEE International Conference on Ultra-Wideband (IEEE ICUWB 2014)*, pp. 337-340.
- [27] A. Anand, **K. Yousef**, et al., “0.5 - 5.5 GHz Ring Oscillator with Pulse Injection in 0.18 μm CMOS Technology,” *Proceedings of 35th IEICE Technical Report on Silicon Analof RF (IEICE- SiRF) Technologies*, pp. 8-8
- [28] **K. Yousef**, H. Jia, A. Allam, et al., “Multi-Phase Ring Oscillator with Minimized

Phase Noise for Ultra-Wideband Applications,” *Proceeding of 2014 International Conference on Information Science, Electronics and Electrical Engineering (ISEEE 2014)*, pp. 1115-1117.

- [29] **K. Yousef**, H. Jia, R. Pokharel, et al., “Low Power, Low Voltage CMOS Ultra-Wideband Low Noise Amplifier for Portable Devices,” *Proceeding of 2013 Second Japan-Egypt Conference on Electronics, Communications and Computers (JEC-ECC 2013)*, pp. 68-70.
- [30] **K. Yousef**, H. Jia, R. Pokharel, et al., “CMOS Ultra-Wideband Low Noise Amplifier (UWB-LNA) Using Symmetric 3D RF Integrated Inductor,” *Proceeding of 2013 IEEE International Conference on Ultra Wide-band (IEEE ICUWB 2013)*, pp. 273-275.
- [31] **K. Yousef**, H. Jia, A. Allam, et al., “Design of 3D Integrated Inductor for RFICs,” *Proceeding of Japan Egypt Conference on Electronics, Communications and Computing (JECECC-2012)*, pp. 22-25.
- [32] **K. Yousef** and A. Allam, “RFIC design challenges and LNA importance”, *Poster in Research Industry day*, Bibliotheca Alexandria, 2011.
- [33] **K. Yousef**, H. Jia, R. Pokharel, A. Allam, M. Ragab and K. Yoshida, “A 2-16 GHz Current Reuse Cascaded Ultra-wideband Low Noise Amplifier,” *Proceedings of Saudi International Electronics, Communications and Photonics Conference (SIEPC-2011)*. pp. 377-381.

Research Projects

Principle Leader or a group leader of the following research-oriented projects: -

- **Low Power IR-UWB Transceiver for Biomedical Applications**, funded by National Key Research and Development of China (2016YFE0116900).
- **UHF (433 MHz) Receiver Design with Duty-Cycled Operation for Low Power Applications**, funded by the Natural Science Foundation of China (61874171)
- **Event-Driven Ultra-Low-Power SoC for Biomedical Applications**, funded by Natural Science Foundation of China (61474074)
- **Memristor-Based Neuromorphic Circuits Implementation**, funded by National Key Research and Development Program of China (2016YFC0105502)
- **Power Harvesting Implantable Biomedical Biphasic Stimulator**, funded by (Neospera, OnSemi, and Si-Ware Systems, USA)
- **Design and Implementation of Impulse Radio Ultra-Wideband Transceiver**, funded by Egyptian Ministry of Higher Education (MoHE) and partially funded by a Grant-in-Aid for Scientific Research (B) from JSPS.KAKENHI (23360159)

Funded Projects

Proposal writing and fund grasping of the following projects: -

- **Biomedical Circuits and Systems Lab Foundation**(4.5M EGP, STDF, Egypt)
- **A Smart Internet-of-Things based Monitoring System for Critical Infrastructure**(2M EGP, STDF, Egypt)
- **Wireless Sensor Network based Irrigation System using Microwave SoCs** (3M EGP, NTRA, Egypt)
- **Artificial Intelligence based System for Smart Homes Lightning, Management, and Utilities Control** (100k EGP, MoHE, Egypt)
- **Portable Wireless ECG Monitoring System using Data Call**(100k EGP, NM, Egypt)

Scientific Activities

A Reviewer of: -

- IEEE Trans. Circuit Systems II: *Express Briefs* (TCASII) (IF: 3.25)
- IEEE Trans. On Very Large-Scale Integration (T-VLSI) (IF: 2.8)
- The Scientific World Journal (IF: 1.73)
- Microelectronics Journal (IF: 0.836)
- International Journal of Electronics and Communications (IF: 0.601)
- International Journal of Circuit Theory and Applications
- Academic Exchange Information Center [Expert Reviewer]
- IEICE Electronics Express (IF:0.391)
- International Journal of Microwave Science and Technology (IF: 0.197)
- Journal of Engineering and Sciences (JES, Egypt). [Editorial Office Membership]
- Journal of Applied Research and Technology (JART)

- International Symposium on Circuits and Systems (ISCAS) [2016-2022] [RCM]
- IEEE International Conference on Electronics, Circuits, and Systems (ICECS)
- IEEE International Conference on Ultra-WideBand (ICUWB)
- IEEE International Conference on Microelectronics (ICM)
- Saudi International Electronics, Communications and Photonics Conference (SIECPC)

A TPC Member of: -

- International Japan-Africa Conference on Electronics, Communications and Computer Engineering (JAC-ECC 2016, 2017, 2019, and 2022)
- International Conference on Innovative Trends in Computer Engineering (ITCE 2019)

A Supervisor of:-

- M.Sc. Thesis, Abeer El-Sayed [Demonstrator, Assiut University] (**Graduated Sept. 2019**)
- Ph.D. Thesis, Hou Yuting [Shanghai Jiao Tong University] (**Currently Running**)
- Ph.D. Thesis, Tao He [Shanghai Jiao Tong University] (**Currently Running**)
- M.Sc. Thesis, Mohammed Adel [Assiut University] (**Currently Running**)
- M.Sc. Thesis, Neveen Fahmy [Assiut University] (**Currently Running**)
- M.Sc. Thesis, Mohammed Mohamedain [Demonstrator, Sohag University] (**Currently Running**)
- M.Sc. Thesis, Asmaa Elsayed [Demonstrator, Assiut University] (**Currently Running**)
- M.Sc. Thesis, Hany Gergies [Demonstrator, Assiut University] (**Currently Running**)

Scientific Conferences, Forums, and Workshops Attendance

- 2021 Int. Japan-Africa Conf. on Electronics, Communications, and Computers (JAC-ECC 2020) [Online]
- Gulf Higher Education Conference – Virtual Event (Alhambra Chamber US)
- 2020 Int. Japan-Africa Conf. on Electronics, Communications, and Computers (JAC-ECC 2020) [Online]
- 2020 Electronics Design Innovation Conference (EDICON 2020) [Online]
- 2019 Int. Japan-Africa Conf. on Electronics, Communications, and Computers (JAC-ECC 2019), Alexandria, Egypt
- 2017 Int. Japan-Africa Conf. on Electronics, Communications and Computers (JAC-ECC 2017), Alexandria, Egypt
- 2017 Electronics Design Innovation Conference (EDICON2017), Shanghai, China
- 2014 European Microwave Week (EuMW2014), Rome, Italy.
- 2014 IEEE Inter. Conf. on Ultra-Wideband (ICUWB2014), Paris, France.
- 2014 Inter. Conf. on Information Science, Electronics and Electrical Engineering (ISEEE 2014), Sapporo, Hokkaido, Japan.
- 2014 IEICE Workshop of Technical Committee on Microwave Engineering (IEICE – MW), Kyoto, Japan.
- 2013 IEEE Inter. Conf. on Ultra-Wideband (ICUWB2013), Sydney, Australia.
- Saudi Inter. Electronics, Communications and Photonics Conf. (SIECPC -2011), KACST, Kingdom of Saudi Arabia.
- Japan Egypt Conference on Electronics, Communications and Computer Engineering (JEC-ECC 2012), Alexandria, Egypt.
- Different Lectures on RFICs design and its challenges, E-JUST University, Egypt.
- Future Challenges in Multi-core design workshop, Nile University, Egypt.
- Research Industry day, Bibliotheca Alexandria, Alexandria, Egypt.

Relevant Graduate Courses

- Advanced Analog Integrated Circuits Design
- Advanced Radio Frequency Integrated Circuits (RFIC) Design
- Analysis and Design of VLSI Mixed-Signal Integrated Circuits
- Advanced Digital Integrated Circuits
- Advanced Digital and Data Communications
- Advanced Topics in Neural Networks
- Advanced Digital Signal Processing
- Advanced Antenna Design
- Advanced Mobile Communications
- Advanced Optical Communications Systems
- Computer Aided Verification of Electronic Circuits and Systems

Scientific and Professional Memberships

- IEEE Membership (June 2013 to Date)
- EuMA Membership (Sep. 2014 to Date)
- Egyptian Engineers Syndicate (Sep. 2008 to Date)

Managerial Experiences

- Electrical Engineering Dept. Council Membership, Faculty of Engineering, Assiut University, Assiut, Egypt (Sept. 2020 to Date), (Sept. 2015 to Aug. 2016).
- Head, IT Unit, Faculty of Engineering, Assiut University, Assiut, Egypt (April 2019 to Date).
- Engineering Studies and Consultations Unit Membership, Faculty of Engineering, Assiut University, Assiut, Egypt (Sept 2019 to Date), (June 2015- Aug. 2016)
- BiCASL Management Council Membership, Shanghai Jiao Tong University (SJTU), Shanghai, China (April 2017 to March 2019).
- Electrical Engineering Dept. Council Secretary, Faculty of Engineering, Assiut University, Assiut, Egypt (Sept. 2015 to Aug. 2016).
- Head, IT Unit, Faculty of Engineering, Assiut University, Assiut, Egypt (April 2015 to Sept. 2016) (June 2019 – Date).
- Group Leadership, ABET Accreditation SSR Preparation, Assiut University.
- Group Leadership, Egyptian NAQAA Accreditation, Assiut University.

Honors and Awards

- **Electrical Engineering Dept., Assiut University ranked 1st in Egypt and (301~400) worldwide according to Shanghai Ranking, 2020.**
- **Associate Professor Title Award, Egyptian Universities Council, Egypt (May 2020)**
- **POST-DOCTORAL FELLOWSHIP EXCELLENCE AWARD, Shanghai Jiao Tong University, Shanghai, China (Nov. 2018)**
- **RESEARCH ASSOCIATE offer of appointment, Nanyang Technological University (NTU), Singapore (May 2016)**
- **Expert Reviewer Appointment, Academic Exchange Information Center (AEIC)**
- **Electrical Engineering Dept., Assiut University ranked (401~500) worldwide according to Shanghai Ranking, 2016**
- **2016 FULBRIGHT JUNIOR FACULTY DEVELOPMENT PROGRAM (JFDP, July 2016-Sept 2016) official acceptance**
- **EuMA STUDENT TRAVEL GRANT AWARD in EuMW2014.**
- **IEEE STUDENT TRAVEL GRANT AWARD in ICUWB2013.**
- **SIEPCPC 2011 Student Travel Grant, KACST, Riyadh, KSA.**
- **Official Research Assist. Academic Acceptance of Kyushu University**
- **Short Term Travel Grant Acceptance, E-JUST Center (<https://www.ejust.kyushu-u.ac.jp>), Kyushu University, Japan**
- Official Academic Acceptance of E-JUST University
- Competitive Scholarship Award, Egyptian Ministry of Higher Education (MoHE), 2010
- Graduation Project Recognition Award, Higher Education and Scientific Research Ministry, Sep. 2008
- Jelecom Company Recognition Award, Aug. 2008
- Graduated "First" in class with Distinction & Honors, B.Sc. in Electrical Engineering, Assiut University, June 2008
- Academic Excellence Reward (ranked 1st), Assiut University, 2004-2007
- Egyptian Syndicate of Engineers Recognition Award, Aug. 2008
- Egyptian Company for Mobile Services (Mobinil) Recognition Award, Sep. 2008
- Cairo University and Ford Foundation Award for having the highest GPA of 4.72 in Pathways programs, July 2007
- Assiut University Representative in Future Leaders Preparation Program, Aug. 2007

Professional Skills

- Excellent experience using VLSI design and simulation tools (Cadence, Mentor Graphics, ADS, Momentum, H-Spice and L-Edit)
- Excellent Knowledge and experience using RFICs/VLSI measurement tools (Manual and Automatic Probe stations, RF Probes, Spectrum and Network Analyzers, Digital Storage Oscilloscope, Low Noise Power Sources and Noise Meters).
- Programming of control systems (PIC, Atmel, PLC Systems)
- Programming languages (VHDL, Verilog HDL, MATLAB, C, Assembly Simulation Language, FORTRAN and Visual Basic)

Professional Courses (Certified)

- Research Proposals Writing for Post-Docs (DAAD, Cairo, Egypt).
- Ethical Conduct and Code of Ethics in University
- Exams Preparation and Student Evaluation
- University Legal and Financial Aspects
- Communication Skills in Education
- Quality Standards in Education
- The Credit Hour Systems
- Strategic Planning and Electronic Learning
- Scientific Research Ethics
- Competitive Research Projects
- Organizing Scientific Conferences
- Innovative and Analytical Thinking
- International Publishing of Research
- Technical Aspects in Scientific Research
- Statistical Analysis in Scientific Research
- Quality Standards in Universities' Teaching

Academic Projects

- Low Power front-end for Wideband Applications (Supervisor, SJTU and Assiut Uni.)
Leading students recognizing specifications and requirements of RFICs front-end in CMOS technology, providing training tutorials and lectures for simulation and verification of CMOS ICs design, physical design consideration and students leadership building the first tape-out of the project, design and implementation of the testing PCB for chip performance evaluation, tutorials and training for measurement and results analysis and optimization.
- Smart Research Lab Implementation for Security and Identification (Assiut Uni.)
Consideration of different circumstances lab members, design, and implementation of cost-efficient smart lab door lock, working for different members identification, implementation of different identification mechanisms, verification and testing of the implemented identification systems, driving conclusions for different aspects and considerations of the project.
- Pseudo Resistors' (PRs) modeling and implementation (Supervisor, SJTU)
Introducing pseudo resistors' different configurations, leading students through the detailed study of PRs, simulation of different PRs configurations and consideration of PRs aspect ratios effects, employment of DC, AC, Transient, S-parameters, and Step-response simulation sets for PRs equivalent circuits building, physical design of PRs structures for tape-out, measurement of the implemented PRs configurations and verifications for biomedical applications.
- Neuromorphic Circuits using Memristor (Supervisor, SJTU and Assiut Uni.)
Literature review for good understanding of memristor properties and performance, simulation and design of memristor equivalent circuits, detailed study of memristor in neural networks and artificial intelligence applications, analyzing and discussing different aspects for memristor behavior deviations, design and simulation of different neuromorphic circuits (neurons and synapses) using memristor.
- Design and Implementation of Smart Electrical Vehicle Employing an Electrical Power Station Feed by High Power Solar-Cell Modules (Supervisor, Assiut Uni.)
Building a smart prototype of electrical vehicle, design and implementation of the vehicle smart system for accident avoidance, studying the smart vehicle power consumption rate, preparation of detailed specifications of provided solar-cell modules, design and

implementation of electrical power station feed by solar-cell modules.

- Design and Implementation of High-Power PV System (Consultant, Assiut Uni.):
Electronic regulation, battery charging and inversion circuits design, implementation and integration of a 2 KVA photovoltaic system providing independent power source for terrestrial applications such as supporting smart home and surrounding areas with the needed power for operation and lightening.
- Home Automation System(Supervisor, Assiut University):
Built using interface circuits as sensors for different events to control home devices and maintain a set of conditions. If not maintained, the system sends SMS notification to the owner's mobile to take a suitable decision.
- Portable Wireless ECG Monitoring System over Data Call(Assiut University):
Pick up the ECG signal, condition the ECG signal for maximum SNR, digitize the ECG signal, formulate a valid data frame for GSM data call, placing data call and received data check for errors, GUI design and implementation for doctor (hospital) side demonstration and received signal display, system control and demonstration are done using an embedded system designed by me.
- Automatic Power Saving System(Assiut University):
Established Using the 555 IC operating in its mono-stable mode of operation to save the power needed in homes in the non-always living rooms and places.
- High Power Display Board System(Assiut University):
This system is established using a PIC16f84A combined with an interface circuit to deliver high electrical power to display board used in visual announcements.

Language Skills

- Arabic: Excellent (Native Speaker)
- English: Excellent (Native)
- Japanese: Basics
- French: Basics

Other Skills

- Ability to teach, demonstrate, and guide different students with different backgrounds
- Discovering new research areas and building dedicated research teams
- Ability to grasp new ideas and develop them into desired results
- Analytical with good problem-solving skills
- High sense in discovering problems and related causes
- Enjoy problem solving, decision making in technical details
- Ability to integrate into a team and lead others (when needed)
- Willing to increase and expand my knowledge and experiences
- Driven by success and achievements (self-motivated)
- Ability to have responsibilities and hard worker
- Ability to learn and easily navigate new systems and tools
- Presentable and friendly personality

Personal Information

Nationality: Egyptian

Sex: Male

DOB: 15/01/1986

Marital Status: Married

Religion: Muslim

Military Service: Exempt

References

▪ Professor. Moumen Taha El-Melegy

Vice Dean of Post-Graduate Studies and Research, Faculty of Engineering, Assiut University, Assiut 71715, Egypt
Former Head of Electrical Engineering Department, Faculty of Engineering, Assiut University, Assiut 71715, Egypt.
CIO, Assiut University, Assiut 71715, Egypt.

E-mail: moumen@aun.edu.eg

▪ Professor. Yongfu Li

Assistant Department Head, School of Microelectronics, Shanghai Jiao Tong University, Minhang 200240, Shanghai, China.
Associate Editor, IEEE TBioCAS and IEEE Open Journal of Circuits and Systems
Appointed Board of Governor, IEEE CAS Society

E-mail: yongfu.li@sjtu.edu.cn

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