

	CURRICULUM VITAE OF Dr. Fathi A. Farag.	
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Date: February , 2024

I. GENERAL

Name	Fathi Abdel-Fattah Farag Ahmed (F. A. FARAG)	
Date of Birth	October 21, 1963.	
Place of Birth	Sharkia, Zagazig Egypt.	
Nationality	Egyptian.	
Office	Department of Electronic and communication, Faculty of Engineering, Zagazig University Zagazig, Egypt E-mail: ffrag@zu.edu.eg Fax: + 20-55-2304987 Phone: + 20-55-3668810 (home). 01110019121, 01011494165	
Present Occupation	Professor since 2014 in Zagazig University	
Interested areas	• Microelectronic circuit analysis and design. • Mixed Analog/Digital IC design, layout and simulation. • Device modeling (MOST, Bipolar,...). • CMOS and BiCMOS circuit design. • Sample/data circuit analysis and design. • Biomedical electronic circuit design • Biomedical signal analysis and data conversion • RF electronic design. • VHDL and Verling Language.	
Academic Qualifications	B. Sc.	Electrical Engineering, Communications & Electronics, Assiut University, May 1986, Average Grade: Very Good, B.Sc. Project : Grade of Distinction with title “Photovoltaic Solar cell array control”
	M. Sc.	Electrical Engineering, Assiut University (1991), Title: “Insensitive Switched capacitor realization of zero producing Sections”
	Ph. D	Electrical Engineering dept., The Federal University of Santa-Catarina (UFSC), Brazil (June 1999), Title: “Digitally programmable low-voltage switched-current filters“

EMPLOYMENT HISTORY

1. **Demonstrator**, Electrical Eng. Dept., Assiut University
(from 1987 to 1991)
2. **Assistant Lecturer**, Electrical Eng. Dept., Assiut University
(from -1991 to February 19-2000).
3. **Lecturer**
 - February, 20-2-2000 to 2002 in Electrical Eng. Dept., Assiut University
 - From January 2003 in Electronic and Communication Dept., Faculty of Eng. Zagazig University up to 18/7/2005.
- 4 . **Assistance Professor**
 1. Electronic and Communication Dept., Faculty of Engineering, Zagazig University since 19/7/2005.
- 5- **Full Professor**
 2. Electronic and Communication Dept., Faculty of Engineering, Zagazig University **since 27/10/2014.**
 - **Chairman of Electronic and communication dept.** of Zagazig higher institute of engineering and technology .since 2016-2018
 - **Responsible of Quality at Zagazig** higher institute of engineering and technology .since 2016-2018
 - **Chairman of Electronic and communication dept.** of faculty of Engineering, Zagazig university since 2018-2020

Googel Scholar

<u>Citation indices</u>	All	Since 2017
<u>Citations</u>	250	109
<u>h-index</u>	9	7
<u>i10-index</u>	9	3

<https://scholar.google.com/citations?user=Agx3o8sAAAAJ&hl=en>

PROFESSION ACTIVITY

- Participate in national, research and environmental projects

1. Modernization and marketing of electronics curricula to match the requirement of e-learning : **HEEPF Project # D-042-L0** September 2005 to February 2007 Faculty of Engineering - Mansoura University.
2. The European Union project (DIMPTOT-TEMPUS JEP_33108_2005) for **the establishment of the Department of Mecha-Electronics**, Faculty of Engineering, Zagazig University
3. The project of supporting scientific research at the Zagazig university fourth stage 2010 "**analysis of mammograms to detect breast cancer**"
4. Supervising the training and preparing the scientific material related to the training of technical school teachers under the supervision of the Projects Implementation Unit at the Ministry of Education.
5. EU project (**DI -EduCamp-WP7-D 7.3-2013**) to establish **a national training center for sustainable development** at Zagazig University for the

- rehabilitation of primary and preparatory teachers at the Ministry of Education.
6. Participation in the team to **buy and install Zagazig University network** as a consultant of the Center for Communications and Information Technology University.
 7. Supervising of the e-learning unit - Deputy Director - Center for Communications and Information Technology, Zagazig University
 8. Executive Director of the Training Unit at the Center for Information and Communication Technology, Zagazig University.
 9. Supervising the implementation of the national training program under the supervision of the National Council of Egyptian Universities (ICTP)
 10. Participating in the submission of a proposal to establish an advanced laboratory and a training center and manufacture of integrated electronic circuits in the field of high frequencies and microwave.
 11. Supervise the summer training programs in the department
 12. Reviewer of **quality assurance of syllabus contain** of Ballbas higher institute of engineering and technology .since 2016-2018

• Scientific sessions

1. Workshop on distance education using the network of information "**Online Distance Education**" Suez Canal University in the period from 13 to 14 February 2007.
2. A training course at IBM on "**E-Learning Content Development**" at the company's headquarters in Cairo - from 12-15 / 11/2006.
3. Training course in IBM on "**production lines of content program IBM IBM Content Producer**" and that at the company's headquarters in Cairo - from 26-30 / 11/2006.
4. Training course in the field of Mechatronics at the University of Technology Silesian, Poland, 5-14 / 11/2008.

EXPERIENCES

- Visiting Professor on “Integrate Circuit Lab.” , University Federal of Santa Catarina (UFSC) , Brazil , from May- December, 2004. Working with tem of “**System on Chip**” project.
 - HEEPF Project # D-042-L0
- Project Supervisor. Supervisor many project and master thesis
- Project supervisor Stem School’s student projects .2023
- Reviewer and program committee
 - 1-
 - 2- IEEE Transactions on Circuits and Systems I <http://tcas1.polito.it/index.html>
 - 3- Spring, Circuits, Systems & Signal Processing, <http://CSSP.edmgr.com/>
 - 4- Ain Shams Engineering Journal <http://ees.elsevier.com/asej/>
 - 5- Elsevier, Microelectronics Journal <http://ees.elsevier.com/mej/>
 - 6- IEEE Transactions on Microwave Theory and Techniques
 - 7- Second International Japan-Egypt Conference on Electronics, Communications and Computers 2013
 - 8- JEC-ECC 2015 : The Third International Japan-Egypt Conference on Electronics, Communications and Computers
 - 9- JEC-ECC 2016 : The Fourth International Japan-Egypt Conference on Electronics, Communications and Computers
 - 10- 5th IEEE Latin American Symposium on Circuits and Systems

- 11- 6th IEEE Latin American Symposium on Circuits and Systems 2015
- 12- 7th IEEE Latin American Symposium on Circuits and Systems 2016
- 13- IEEE Latin American Symposium on Circuits and Systems 2017
- 14- 11th Argentine School of Micro-Nanoelectronics, Technology and Applications EAMTA 2016
- 15- International Conference on Advanced Electronic Science and Technology [AEST2016]
- 16- JAC-ECC 2017 (Japan-Africa Conference on Electronics, Communications and Computers 2017)
- 17- TPC in JAC-ECC 2018.
- 18- IEEE ICECS 2018, Bordeaux France
- 19- 10th IEEE Latin American Symposium on Circuits and Systems (LASCAS 2019) Armenia, Colombia.
- 20- TPC in JAC-ECC 2019.
- 21- IEEE Transactions on Circuits and Systems I:
- 22- IEEE MICROWAVE AND WIRELESS COMPONENTS LETTERS
- 23- Journal of Circuits, Systems & Signal Processing "JCSP"
- 24- Journal of Circuits, Systems and Computers.
- 25- IEEE Transactions on Biomedical Circuits and Systems.

• **Teaching Courses (undergraduate/post graduate) :**

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|---|---|
| 13. ECE601 Advanced Digital Integrated Circuits | 1. Electrical Circuits Basics |
| 14. ECE602 Analog Metal Oxide Integrated Circuits | 2. Electronic fundamental |
| 15. ECE604 Optical and Electro – Optics Devices | 3. Electronic basic 2 |
| 16. ECE614 Digital Signal Processing Circuits | 4. Electronic circuit design. |
| 17. Advanced control system. | 5. VLSI fundamental. |
| 18. Measurements | 6. Electronic application |
| 19. C-language | 7. Integrated circuit design. |
| 20. Biomedical instrumentation | 8. Advanced electronic. |
| 21. Electronic biomedical systems | 9. ECE508 Electronic Basics 1 |
| | 10. ECE510 Electronic Basics 2 |
| | 11. ECE511 Electronic Circuits |
| | 12. ECE526 Advanced Integrated Circuits |

Teaching positions

- Zagazig university (electronic and communication, Mechatronics, power electronic and computer and control Dept.
- Assuit University (electrical dept and Mechatronics dept.)
- HIGHER TECHNOLOGICAL INSTITUTE - 10th of Ramadan City (BIOMEDICAL ENGINEERING dept.).
- Zagazig higher institute of engineering and technology.
- El-Oboar higher institute of engineering and technology.
- Air Defense College Alexandria.

Biomedical work supervisor and reviewer

1. Nabil ElSawy “Accelerating Screen Content Coding in H.265 Standard using Deep Learning” Zagazig University 2022 (supervisor)
2. Daaa Ibraheem “High speed Optical receivers in Nanometer CMOS technology” Assuit University 2015 (Reviewer)
3. Abber Othman “ Design and Simulation of Wide Dynamic Range Low Noise CMOS Image Sensors Using Photogates as Photodetector” Master , Assuit University 2019 (Reviewer)
4. Ashraf Ragab “Testing and Fault Diagnosis for Pipelined ADCs” Master , Assuit University 2018 (Reviewer) Master , Assuit University 2019 (Reviewer)
5. Ahmed Atef “Wide Dynamic Range High Sensitivity Optoelectronics Integrated Circuits for Sensing Biomedical Signals” Master , Assuit University 2017 (Reviewer commit)

6. Moataz Mohamed “**Design of High-speed Low-power Analog Integrated Circuits using The Gm/ID Methodology**” Master , Assuit University 2021 (Reviewer commit)
7. Qassem M. Khallel “ **Design of High Performance Comparators and Time to Digital Converters for Level-Crossing Analog to Digital Converters**” Master , Assuit University 2014 (Reviewer commit).
8. Awny Mohamed “ **Integrated Circuits Design and Implementation for Wireless Body Area Networks Transceivers**” PH. D. , EJUST 2018 (Reviewer Commit)
9. Heba Abdel Minaem “ **Development of solar cell for large area motion detection**” Master – Ein Shams University , 2022 (Reviewer Commit)
10. Halla Mosad “**The Implementation of Nano Adders Using optimized Single-Electron Inverter-Based logic gates**” Master, Mansoura University , 2014 (reviewer Commit).
11. Heba Attia “**Network on Chip under Highly Process Variation**” PH. D – Bani Swafe University 2015 (Reviewer Commit)
12. Baker Hesham “**A study of nanoscale channel FinFET for low power analog applications**” Master- Asswan University -2020 (Reviewer Commit)
13. Mohamed A Abdealla “**Investigation of Reverberation Effect on Speech Signals**” Master – Monofia University - 2021 (reviewer Commit)
14. Assma Ibraheem “ **An improve IRIS RECOGNATION System using Fusion techniques**” Master , Zagazig University 2016 (supervisor)
15. Nabial EL Sawy “**Development of Contrast Enhancement Algorithm for Mammogram Images**” Master , Zagazig University 2013 (supervisor)
16. Shiamaa Fiade “ **Development of Computer Aided Diagnosis (CAD) Algorithm for Mammogram Images**” Master , Zagazig University 2013 (supervisor)
17. Ahmed Reda “ **Current Conveyor Circuit Based on CMOS Converter for Low Voltage and Low Power Applications**” Master, Zagazig university 2014 (supervisor)
18. Ahmed Hossny “ **Low power successive approximation ADC For Biomedical application** “Master, Under preparation Zagazig university.
19. Abdel Rahaman Dawood “**High performance Dynamic Current Comparator for Biomedical application** “ Master, Under preparation Zagazig university 2022.
20. Ahmed Abdel Razek “**Class E-power amplifier design for Sensor Network Application** “ Master, Under preparation Zagazig university 2022.

LIST OF PUBLICATIONS

I have been published more than **85 papers** at different international journals and conferences. The last 10 years publications are:

- [1] Ahmed Rada, Moahmed Faraahat, and **Fathi A. Farag** " **Automated Design Technique for Constant g_m Rail-to-Rail for OTA Input Stage**" IEEE International Conference on Microelectronics (ICM-2012), pp. 1-4, Algeria , Algeria.
- [2] **Fathi A. Farag** " **Inductor Implementation Using CMOS Current Conveyor Integrator for Low Voltage Low Power Applications**" IEEE International Conference on Microelectronics (ICM 2012), Algeria, Algeria.
- [3] L. Abdel-Hafez, Y. A. Khalaf, and **F. A. Farag**" **High Linearity CMOS Variable Gain Amplifier for UWB Applications** " Journal of Engineering Sciences, Assiut University, Faculty of Engineering Vol. 41, No. 2, pp. 577-591 , March 2013.
- [4] **Fathi A. Farag** " **CMOS Current-Mode Integrator for Low Voltage and Low Power Applications** " The 14th International Symposium of IEEE Circuits and Systems in Latin America "LASCAS 2013" , Cusco, Peru., February 2013.
- [5] Ahmed Rada, Moahmed Faraahat, and **Fathi A. Farag** " **Input Offset Cancellation Trimming Technique for Operational Amplifiers**" The Second Saudi International Electronics, Communications and Photonics Conference (SIEPC 2013) Conference, Riyadh, Saudi Arabia.

- [6] **Fathi A. Farag " High Performance CMOS Buffer Amplifier with Offset Cancellation"** The Second Saudi International Electronics, Communications and Photonics Conference (SIEPC 2013) Conference, Riyadh, Saudi Arabia.
- [7] **Fathi a. Farag " CMOS Current-Mode Integrator and Differentiator for Low Voltage and Low Power Applications"** Journal of Engineering Sciences, Assiut University, Faculty of Engineering, January 2014.
- [8] *Ahmed Wahba, Yaser Khalaf and Fathi Farag* “ **New UMTS Multiband Design for TX-Leakage Suppression in RF Front-End Transcievers** “[26th International Conference on Microelectronics \(ICM 2014\)](#) .
- [9] *Fathi A Farag* “**Automatic Design Methodology For CMOS Amplifier Based on the Universal gm/ID MOSFET Model'** 2nd World Congress on Computer Applications and Information Systems (WCCAIS'2015).
- [10] *Ahmed Wahba, Ahmed Reda; Yaser Khalaf and Fathi Farag* '**Differential Input-Differential Output CMOS Current Conveyor For High Frequency Applications**” the 2nd World Congress on Computer Applications and Information Systems (WCCAIS'2015).
- [11] *Mohammed A Shehata, Fathi A Farag and Mohamed F Ibrahim*” **Low Power Pseudo CMOS Memory Cell for Matrix ROM Applications**” 32nd National [Radio Science Conference \(NRSC\)](#), Pages: 380 - 387, Cairo 2015.
- [12] *Fathi A Farag , Mohamed F Ibrahim, and Mohammed A Shehata* “ **Automated Analog Circuit Design and Chip Layout Tool**” [IEEE International Conference on Electronics, Circuits, and Systems \(ICECS\)](#) Pages: 482 - 485, Cairo 2015.
- [13] *Ahmed Reda, Mohamed Farahat, Fathi a Farag* “Input–output Rail-to-Rail CMOS CCII for low voltage–low power applications” [Microelectronics Journal Volume 48](#) , Pages 60–75, February 2016
- [14] *Kawther Arafa, Ibrahim Abdalla, Mohamed Ibrahim and Fathi Farag* "**Design RF Cascode Amplifier Based on the Universal gm/ID MOST Model using Shifting Technique**" [2016 5th International Conference on Electronic Devices, Systems and Applications \(ICEDSA\)](#) Pages: 1 – 5, 2016.
- [15] *Nabila Elsaywy, Mohammed Sayed and Fathi Farag* " **Selective Energy-Based Histogram Equalization for Mammograms**" published in JAC-ECC 2017 (Japan-Africa Conference on Electronics, Communications and Computers 2017).
- [16] *Asmaa I. Ismail ; Hanaa S. Ali ; Fathi A. Farag* " Efficient enhancement and matching for iris recognition using SURF "2015 5th National Symposium on Information Technology: Towards New Smart World (NSITNSW)
- [17] *Shaymaa A. Hassan ; Mohammed S. Sayed and Fathi Farag* “ Segmentation of breast cancer lesion in digitized mammogram images “ 2014 Cairo International Biomedical Engineering Conference (CIBEC) Page s: 103 - 106
- [18] *Shayma'a A. Hassan ; Mohammed S. Sayed ; Fathi Farag ; Ghada K. Gouhar* “ Pectoral muscle identification in mammograms for Computer Aided Diagnosis of breast cancer” 2012 Cairo International Biomedical Engineering Conference (CIBEC) Page s: 158 - 161 , 2012
- [19] *Ibrahim Abdalla, Kawther Arafa, Fathi Farag, and Mohamed Ibrahim* “ Design of CMOS Low Noise Amplifier using an Automated System-on-Chip Methodology “ IEEE, 37th National Radio Science Conference NRSC2020, PP. 181-188, Cairo 2020.
- [20] *Mohamed F. Ibrahim, Ahmed R. Mohamed, Fathi A. Farag, and Ibrahim L. Abdalla.* (2020). An Automated Design Algorithm-Simulated Annealing-Based for Design Analog Circuits. International Journal of Advanced Science and Technology, 29(05), 14023 - 14035. Retrieved from <http://sersc.org/journals/index.php/IJAST/article/view/33204>

- [21] I. L. Abdalla, Fathi A. Farag, and Mohamed F. Ibrahim, "Variable Gain Amplifier Based on MIFGMOS Transistor for Biomedical Applications" IEEE 32nd International Conference on Microelectronics (ICM), pp. , ICM 2020
- [22] FATHI A. FARAG, AHMED R. MOHAMED, AND AHMED W. ELASID, A CMOS TWO-STAGE AMPLIFIER DESIGN METHODOLOGY FOR CAD TOOLS" IEEE, 2021 International Conference on Electronic Engineering (ICEEM), pp , Menouf, Egypt, 2021
- [23] AM Abdelmonem, ASI Amar, A Almslmany, IL Abdalla, and FA Farag "Design and implementation of a broad-band high gain low noise amplifier for 3G/4G applications" Indonesian Journal of Electrical Engineering and Computer Science, Vol. 23, Issue.. 2, pp 725-732, 2021.
- [24] Nabila Elsayy, Mohammed S Sayed, and Fathi. A Farag, "Mode skipping for screen content coding based on Neural Network Classifier "JOURNAL of Real-Time Image Processing, pp.1-16, Springer Berlin Heidelberg, 2021, <https://link.springer.com/article/10.1007/s11554-021-01137-4>
- [25] Fathi A Farag , Abdel Rahman M. Dawood " A very high speed, high resolution dynamic current comparator " IEEE, Jac-ecc 2021.
- [26] Mohamed F. Ibrahim, Ahmed R. Mohamed, Fathi A. Farag, and Ibrahim L. Abdalla. (2020). An Automated Design Algorithm-Simulated Annealing-Based for Design Analog Circuits. International Journal of Advanced Science and Technology, 29(05), 14023 - 14035. Retrieved from <http://sersc.org/journals/index.php/IJAST/article/view/33204>
- [27] A Hosny, FA Farag, A Wahba, AR Mohamed " [A power-efficient dynamic-time current mode comparator](#) "AEU-International Journal of Electronics and Communications 171, 154934, 2023.
- [28] M. F. Abdel-Fattah and F. A. Farag, "Inverter-based Switched Current Programmable Sampled and Hold Amplifier for LV Applications" Accepted to publish in The IEEE International Conference on Industrial Technology (ICIT2024), UK , March 2024.

Under preparing papers

1. Fathi A Farag " Analog Multiplier based on FGMOS for low voltage application "
2. Fathi A Farag and etc " Highly Current Comparator for Biomedical Applications"
3. Fathi A Farag " Current Domain Successive Approximation ADC for Biomedical signal "processing.
4. Fathi a Farag Switched Inverter Based Serial to Analog Converter for LVLP Applications
5. Fathi A Farag Σ - Δ Current mode ADC .

Future project:

Title : "Design of Aids system " Zagazig and EJUST teams
 - Preparing a proposal for ITEDA, Our team is responsible for the Analog circuit part for front end Aids system.

Title " Design a LED current driver circuit for dentist treatment "

Looking for fund.

VI E-Learning Publication

- 1- Fathi A. Farag "Full Customs Integrated Circuit Chip Design" Mansura University portal, [http://mansvu.mans.edu.eg/moodle/Integrated_Circuits_\(HEEPF_9421,](http://mansvu.mans.edu.eg/moodle/Integrated_Circuits_(HEEPF_9421))
[http://www1.mans.edu.eg/projects/heepf/ecmeec/ECMEEC131.asp?d=2,](http://www1.mans.edu.eg/projects/heepf/ecmeec/ECMEEC131.asp?d=2) 2006.

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