Curriculum Vitae

Associate professor : Ashraf Mohamed Ali Hassan
Head of Electrical Engineering Department in Sinai University

Birth date : 31th Octoper 1979
Address: 10 Diaa st., Haram, Giza
Phone: 01006828409
Email: ashraf.hassan@su.edu.eg, ashmohamed1979@gmail.com

Degrees Hold:

- **Associate professor: Field:** Electronics and Communication
  Awarded by: supreme council of universities, 2019
- **PhD**: **Field:** Electronics and Communication
  Awarded by: Cairo University, 2009
  Title of thesis: "Multiple Sub-Adaptive Filters Approach to Acoustic Echo Cancellation and Blind Source Separation"
- **MSc: Field:** Electronics and Communication
  Awarded by: Cairo University, 2005
  Title of thesis: "A New Technique of a Very Low -Voltage and Low-Power RF Mixer"
- **BSc: Field:** Electronics and Communication
  Awarded by: *Cairo University*,July 2002,Very Good with Honor(79.51%)

Previous occupations and Experience:

- ***Full time in the following institutes*** **:-**
  Modern Academy for Engineering&Technology in Maadi (2003 to 2014)
  October university for modern science and arts (2014 to 2018)
  Sinai university (2018 to 2022)
  October High Institute for Engineering and Technology (2022 up to date)
- ***Part time in the following institutes*** **:-**
  October university for modern science and arts
  Faculty Of Engineering,10th of Ramdan University
  Thebas Higher instiutes Of Engineering
  Science Valley Academy

Courses teaching:

- **Logical Circuits Design**:Combinational&Sequential Circuits
- **Mobile Communication :** 1G, 2G(GSM,DCS), 3G(UMTS), LTE.
- **MicroElectronics**:Semiconductors,Diodes,Transistors and Operational Amplifiers
- **Electronic Measurements**: Digital Oscilloscope, Digital Multimeters
- **Automatic Control:** Reduction of block diagram**,** Transient Analysis, Steady State Error,

stability**,** root locus**,** Bode plot.

- **Analog Communication:** Modulation, AM, FM, PM, ADC.
- **Digital Communication:** Noisy signals, Sampling process, PAM, PCM, Delta modulation, Matched Filter, Signal Space Representation, ASK, FSK, PSK.
- **Satellite communication :** Overview of satellite system, Orbits and Lanching Methodes, The Geostationary Orbit, Satellite Signals, Satellite Applications.
- **Data Communication :** Network Topologies , Categories, Transmission Modes, Analog and Digital Signals, Asynchronous Transmission and UART interface, Synchronous Transmission and USRT interface, Line Coding Techniques (NRZ, RZ, Manchester, HDB3, mLnB, etc), FDM, TDM, and WDM.
- **ICDL**:MS Windows,MS Office,HTML
- **Programming** :Pascal,C++,Visual Basic
- **Computer Applications** :Matlab,PSpice

Papers published during Ph.D. :

1- Amin Mohamed Nassar, Ashraf Mohamed Ali, "Multiple Sub-Filters Approach to Acoustic Echo Cancellation", The 25th National Radio Science Conference ,NRSC ,*18-20 March 2008.*

2- Amin Mohamed Nassar, Ashraf Mohamed Ali, "Decomposition of Long Adaptive Filter Approach to Acoustic Echo Cancellation and its Implementation Using FPGA", The 6th International Conference on Electrical Engineering, ICEENG-6, *May 27-29, 2008.*

3- Amin Mohamed Nassar, Ashraf Mohamed Ali, "Blind Source Separation Using Higher Moments of Generation", International Conference on Network Applications, Protocols and Services 2008 (NetApps 2008) *November 21-22,2008 Executive Development Center,University Utra Malaysi.*

4- Amin Mohamed Nassar, Ashraf Mohamed Ali, " A New Technique of Modeling Acoustic Echo and its Implementation Using FPGA", The 2008 Japan-China Work Shop on Frontier of Computer Science and Technology,*27-28 Dec 2008,IEEE CONFERENCE.*

5- Amin Mohamed Nassar, Ashraf Mohamed Ali, "Modified Decomposition Techniques for Modeling Echo and its Implementation Using FPGA", The Second International Conferences in Computer-Human Interactions[ACHI 2009] held in Cancun, Mexico, *February1-7,2009.*

6- Amin Mohamed Nassar, Ashraf Mohamed Ali, "A New Technique of Modeling Acoustic Echo with Blind Source Separation and Its Implementation Using FPGA", The11th International Conference on Advanced Communication Technology, *February 15-18, 2009, Phoenix Park, Republic of Korea, IEEE CONFERENCE.*

Papers published after Ph.D. :

1- Eman Gaber Ahmed Mahmud, Hosam El den Elsaied, Ashraf Mohamed Ali Hassan, Amin Mohamed Nasser, "Evaluation for Suitable Large-Scale Propagation Models to Mobile Communications in Urban-Area", International Refereed Journal of

Engineering and Science (IRJES), *Volume 2, Issue 2(February 2013), PP.38-44* .

2- Ashraf Mohamed Ali Hassan, "Analysis and Design of High Performance Ring Voltage Controlled Oscillator", International Journal of Computer Applications, *Volume 70– No.20, May 2013, pp.5-10.*

3- Ashraf Mohamed Ali Hassan, "A Novel Circuit Model of Small-Signal Amplifier using MOSFETs and BJT in Quadruple Darlington Configuration", International Journal of Computer Application, *Volume 81 – No.10, November 2013, pp.26-30.*

4- Ashraf Mohamed Ali Hassan, "Power Line Interference (PLI) Reduction in Electrocardiogram (ECG) Using Multiple Sub-Adaptive Filters Approach", International Journal of Scientific Engineering and Technology, *Volume No.3 Issue No.5, May 2014, pp : 694-697.*

5- Ashraf Mohamed Ali Hassan, "Enhancement of Designing The Smart Glove", International Journal of Applied Engineering Research, *Volume 10, Number 6 (2015), pp. 15915-15937*

6- Ashraf Mohamed Ali Hassan, "Enhancement of a GSM Based Control System", International Journal of Applied Engineering Research, *Volume 10, Number 9 (2015), pp. 21991-22000*

7- Ashraf Mohamed Ali Hassan, "Color Mixing Machine Using PLC and SCADA", WSEAS TRANSACTIONS on SYSTEMS and CONTROL, *Volume 10, November 2015, pp. 650-665.*

8- Ashraf Mohamed Ali Hassan, "Indoor Location Tracking System Using Neural Network Based on Bluetooth", International Conference on Electrical, Electronics, and Optimization Techniques (ICEEOT) – 2016, IEEE Conference. *PP.*73-78.

9- Mohamed Hassan Mohamed, Ashraf Mohamed Ali Hassan, N.M.Hussein Hassan, "Automatic Speech Annotation Based on Enhanced Wavelet Packets Best Tree Encoding (EWPBTE) Feature", International Conference on Electrical, Electronics, and Optimization Techniques (ICEEOT) – 2016, IEEE Conference, *PP.*2611-2616.

10- Hend Fathy, Ashraf Mohamed, Eman Mohamed, Wagdy Anis, "Enhancement of ECG Signal", International Journal of Computer Applications, *Volume 145– No.7, August 2016, PP.12-16.*

11- Ashraf Mohamed Ali Hassan, Mohammed Mohammed Abo-Zahhad, "Efficient Compressive Sensing for ECG signals Using Ridgelet Transform", Wulfenia, *Volume 24– No.3, Mar. 2017, PP.343-356.*

12- Ashraf Mohamed Ali Hassan, "FPGA Realization for Baseline Wander Noise

Cancellation of ECG Signals Using Wavelet Transform", International Journal of Computer Applications, *Volume 168– No.2, June 2017, PP.1-6.*

13- Eman Gaber Ahmed Mahmud, Hossam Labib, Ashraf Mohamed Ali Hassan and Amin Mohamed Nasser, " Adaptive Recourses Strategy with Multi-Service in Heterogeneous Networks", Journal of Electronics and Communication Engineering, *Volume 12, No. 4, Jul.-Aug. 2017, PP. 41-44.*

14- Ashraf Mohamed Ali Hassan, "ECG Signals Compression Using Walsh Hadamard Transform and its Efficient Realization Using FPGA", Wulfenia, *Volume 24– No.11, Nov. 2017, PP.115-125.*

15- Ashraf Mohamed Ali Hassan, "Enhancement in Implementation of Real-Time Adaptive Compressive Sensing for ECG Signals Using FPGA ", *Ciência e Técnica Vitivinícola, Volume 32– No.11, Nov. 2017, PP.35-42.*

16- Ashraf Mohamed Ali Hassan, Waleed EL Nahal, Hatem M. Zakaria, VLSI Architecture for Optimization Transform Technique based on Compression of ECG Signals ", International Journal of Computer Applications, *Volume 181– No.48, April 2019, PP.54-62.*

17- Hatem M. Zakaria, Ashraf Mohamed Ali Hassan, Waleed El Nahal, "Design of an Asynchronous Switch for Clock Domain Crossing Interfaces" , International Journal of Computer Applications, *Volume 181– No.48, April 2019, PP.63-70.*

18- Waleed El Nahal, Ashraf Mohamed Ali Hassan, Hatem M. Zakaria, " A Modified Hilbert Analysis Method to Improve Voice Stress Analysis Systems", International Journal of Computer Applications, *Volume 178– No.12, May 2019, PP.51-56.*

19- Ashraf Mohamed Ali Hassan, Waleed El Naheel, "New Trend of Compressed Sensing Technique Directed Toward Internet of Things", International Journal of Recent Advances in Multidisciplinary Research, *Volume 6– No.6, June 2019, PP.4923-4931.*

20- Ashraf Mohamed Ali Hassan, Mohammed S Alzaidi, Sherif SM Ghoneim, Waleed ElNahel, " Efficient Data Compression of ECG Signal Based on Modified Discrete Cosine Transform", CMC- Computers, Materials and Continue, Volume 71, No. 3, 2022, PP. 4391-4408.

21- El Nahal, Waleed; Zaini, Hatim G; Zaini, Raghad H; Ghoneim, Sherif S. M; Hassan, Ashraf Mohamed Ali, "Robust and High Accuracy Algorithm for Detection of Pupil Images", CMC- Computers, Materials and Continue, Volume 73, No. 1, 2022, PP. 33-50.

22- Mohammed M Abo-Zahhad, Ashraf Mohamed Ali Hassan, " Classification of ECG

Signals for Detecting Coronary Heart Diseases Using Deep Transfer Learning Techniques",10th International Japan-Africa Conference on Electronics, Communications, and Computations (JAC-ECC), PP. 138-143, 2022.

23- Saeed Mohsen, Sherif SM Ghoneim, Mohammed S Alzaidi, Abdullah Alzahrani, Ashraf Mohamed Ali Hassan, "Classification of Electroencephalogram Signals Using LSTM and SVM Basedon Fast Walsh-Hadamard Transform", CMC- Computers, Materials and Continue, Volume 75, No. 3, 2023, PP.5271-5286.

24- Saeed Mohsen, Anas M Ali, El-Sayed M El-Rabaie, Ahmed Elkaseer, Steffen G Scholz, Ashraf Mohamed Ali Hassan, "Brain Tumor Classification Using Hybrid Single Image Super-Resolution Technique with ResNext101_32x8d and VGG19 Pre-Trained Models", IEEE ACCESS, Volume 11, 2023, PP.5582-5593.

25- Amin S Ibrahim, Ahmed M Abbas, Ashraf Mohamed Ali Hassan, Wael MF Abdel-Rehim, Ahmed Emam, Saeed Mohsen, "Design and Implementation of a Pilot Model for IoT Smart Home Networks", IEEE ACCESS, Volume 11, 2023, PP.59701-59728.

Master Theses Supervision :

1- Enhancement of ECG by Hend fathey, faculty of engineering, Ain Shams University

2- IMPLEMENTATION OF BLUETOOTH-BASED INDOOR LOCATION TRACKING SYSTEM by Mohamed abdelwaheed, cairo university.

3- Suitable Design for Large-Scale Propagation Models to Mobile Communications in Urban-Area by Eman Gaber, Benha University.

4- LTE Planning by Mohamed Nabel, Ain Shams University.

Ph.D. Thesis Supervision :

1- Enhancement of LTE Design for Large-Scale Propagation Models to Mobile Communications in Urban-Area by Eman Gaber, Benha University.

Certficate Awarded :

1- Awarded a certificate of attendance and meeting the standards required for completion of a training course in "use of technology in teaching" held from 10/11/2013 to 11/11/2013.
2- Awarded a certificate of appreciation for the supervision with the high performance and lasting contribution to graduation project with the title of " Vertical Handover Implementation and Application" and this project is the first on the level of the Egyptian university.
3- Awarded a certificate from National Authority for Quality Assurance and Accreditation of Education for training attendance with title "Self Evaluation for

Academicals Leader Ship" held from 31/3/2013 to 2/4/2013.

4- Awarded a certificate of attendance for Rubrics Uses, Design and Types Workshop and has completed Three Training Hours, that were held on January 10th , 2018.
5- Awarded a certificate of Appreciation for contribution and valuable efforts in the Scientific Conference of the Faculty of Engineering 2018 that was held at October University of Modern Sciences and Arts (MSA),Giza, Egypt, 25th of February, 2018.
6- Awarded a certificate of participation in scientific webinar entitled : Research Perforr index on 7 October 2021.