Curriculum Vitae (CV)

Full Name

Noura Ali Mahmoud Ali

Personal Information:

Academic Rank: Assistnat professor (dr)

Department: Electrical Engineering

Specialization: Communications and Electronics

Position: 10th of Ramadan, El-Sharqia Governate

Google Scholar: nora.ali@hti.edu.eg

Research Gate: [https://www.researchgate.net/profile/Noura-Ali-3]

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Education:

Degree	Discipline	Institution	Year
Ph.D.	Communication	El-Azhar University	2020
M.Sc.	Communications and Electronics	El-Azhar University	2013
B.Sc.	Communications and Electronics	Shoubra faculty of engineering, Benha University	2004

Academic Experience:

Institution: Higher technological Institute

Rank: Assistant Professor

Dates: 2020 till now

Institution: Higher technological Institute

Rank: assistant teacher(Research Assistant (PhD student))

Dates: 2013-2020

Institution: HTI

Rank: Teaching assistant

Dates: 2005-2013

Institution: Shoubra faculty of engineering

Rank: teaching assistant

Dates: 2004-2005

Research interests:

- -wireless communications
- -VOIP
- Mobile communications

Publications:

- Noura Ali, Mohammed Ibrahim, and Ibrahim F.Tarrad, "A Proposed Method to Reduce the BER in Wavelet-based OFDM" International Journal of communication application (0975 – 8887), Volume 140 – No.2, April 2016.

- Noura Ali, Mohammed Ibrahim, and Ibrahim F.Tarrad Fathy," Performance Improvement by using a Concatenated Levels of Encoding in Wavelet-based OFDM Systems", International Journal of Com. Network, Foundation of Computer Science (FCS), NY, USA, Volume 177 - Number 5, November 2017.
- Noura Ali, Mohammed Ibrahim, and Ibrahim F.Tarrad, "Apply the Wavelet Compression on OFDM based on Wavelet Transforms to Enhance the LTE Performance" International Conference on Electrical, Electronics, Computers, Communication, Mechanical and Computing (EECCMC), Vellore District, IEEE, 2018.
- Noura Ali, Mohammed Ibrahim, and Ibrahim F.Tarrad, "Reduce PAPR for a Proposed Coding Algorithm by Wavelet Transform", (IJCSIS - ISSN 1947 5500) Edition (Vol. 16 No. 7), July 2018.
- Noura Ali, M. I. Youssef, and I. F.Tarrad. "ICI Reduction by Parallel Concatenated Encoder Using Wavelet Transforms" Information and Communication Technology for Sustainable Development. Springer, Singapore, PP 415-421, 2020.
- B. M. Elhalawany, C. Gamal, A. Elsayed, M. M. Elsherbini, M. M. Fouda and N. Ali, "Outage Analysis of Coordinated NOMA Transmission for LEO Satellite Constellations," in IEEE Open Journal of the Communications Society, vol. 3, pp. 2195-2202, 2022, doi: 10.1109/OJCOMS.2022.3221051.
- Shafiq, Raghda RG, et al. "A power source for E-devices based on green energy." *Energy Harvesting and Systems* 0 (2023).

Certifications or Professional Registrations:

Honors and Awards:

-- Obtaining a course on effective teaching and learning strategies for colleges and institutes of higher education approved by the National Quality Assurance Authority on november-7-2018

2- Obtaining a course on the use of technology in teaching at the Higher Technological Institute on december-3-2018

3- Obtaining a training course entitled "Description of Programs and Courses and Evaluation of Learning Outcomes for Colleges and Institutes of Higher Education" approved by the National Quality Assurance Authority on april-8-2019

4- Obtaining a training course entitled "Self-Assessment of Educational Programs: Colleges and Institutes of Higher Education" approved by the National Quality Assurance Authority on February 15, 2021

5- Obtaining a training course entitled "Constructive assessment for learning" approved by "DAAD Kairo Akademia" on 12/1-2021

6- Obtaining a training course entitled "Exam systems and student assessment: Colleges and Institutes of Higher Education" approved by the National Quality Assurance Authority on November 27,28- 2021

7- Python Programming Basics

Teaching Experience:

Courses taught

1- - Communication systems

Linear modulations: AM, DSB-SC, SSB, USB, QAM, for each type: Time domain, modulators, demodulators, advantages, disadvantages and typical uses; AM power efficiency, effect of synchronization error on performance of QAM, DSB-SC, SSB, Angle Modulation (FM,PM); Time Domain, Carson, Srule, modulators and demodulators, Armstrong radio Transmitter, PLL use in carrier Synch and FM

demodulation, Pre-emphasis and de-emphasis in FM, Superhetrodyne radio receivers, Introduction to random signals and noise: Definition of Random process, Stationarily and Ergodicily, Mean, Correlation and Power Spectral Density. Response of LTI system to random process. Gaussian and White noise, Rician and Raleigh process. Noise Figure and Noise Temperature. Experiments to support the topics are performed.

Lab.

- AM modulator/demodulator.
- DSB-SC and SSB modulator/demodulator.
- FM modulator/demodulator.
- HF PLL and RF PLL circuit.

2- Signal and systems

Classification of signals: Signal types, periodic and non-periodic signals, unit step function, impulse function, operations on signals. Systems classification: linearity, time invariance, causality, impulse response, step response, bounded input bounded output stability. Convolution integral: types of convolution, periodic inputs, periodic convolution. Fourier series representation for periodic signals, properties of Fourier series coefficients, Fourier coefficients of an LTI system outputs whose inputs are periodic, concepts of filters. Fourier Transform for continuous signals, properties of Fourier Transform, Inverse Fourier Transform, applications.

3- Digital signal processing DSP

Discrete time signals, signal types, periodic and non-periodic signals, unit sample, unit step function, operation on signals. Discrete time systems, linearity, time invariance, causality, difference equations, unit sample response, step response, bounded input bounded output stability. Convolution sum: types of convolutions, periodic inputs, periodic convolution. Fourier series for discrete time signals, properties of Fourier series coefficients, Fourier coefficients of an LTI-Systems outputs whose inputs are periodic, concepts of discrete time filters. Fourier Transform for discrete time signals, properties of Fourier transform, Inverse Fourier Transform, Fast Fourier Transform (FFT), applications.

4- Communication 3

Overview on probabilities and random process. Information and Entropy, Source coding theorem, Data compression, Discrete Memoryless Channels, Mutual Information channel capacity, entropy of a Markov source. Channel Coding theorem. Gaussian noisy channels. Error control coding (linear block codes, cyclic and convolution codes, trellis coded modulation, turbo codes). Advanced topics. Experimental work to support the above-mentioned topic is performed.

5- Computer skills

The goal of this course is to teach and assess basic computer concepts and skills so that students can use computer technology in everyday life to develop new social and economic opportunities for themselves, their families, and their communities. This curriculum will help students to develop a fundamental understanding of computers; from using the Internet, to sending e - mail, to creating a resume. This curriculum helps in developing the essential skills the student needs to begin computing with confidence. The course consists of five modules: 1) Computer Basics (Introduction to Computers - Common Computer Terminology - Computer Performance and Features - Computer Operating Systems - Career Opportunities); 2) The Internet and the World Wide Web (The Internet - The World Wide Web - Using e - mail - Other Methods of Communicating on the Internet); 3) Productivity Programs (Introduction to Productivity Programs - Common Features and Commands - Introduction to Word Processing - Introduction to Spreadsheet Programs - Introduction to Presentation Programs - Introduction Database Programs); 4) Computer Security and Privacy (Introduction to Computer Securityand Privacy - Protecting Your Computer - Protecting Your Family from Security Threats - Keeping Your Computer Secure and Updated - Computer Ethics); 5) Digital Lifestyles (The Digital Experience, Introduction to Digital Audio - Introduction to Digital Video - Introduction to Digital Photography - Digital Technology and Career Opportunities).

6- DSP2

Overview of discrete time signals and systems: Difference equations, Fast Fourier Transform. Digital filters and digital filter design, finite impulse response filters, infinite impulse response filters. Approximation for recursive filters: Invariant-Impulse-Response method, modified Invariant-Impulse-Response method, matched Z-transform, bilinear transformation methods.