Curriculum Vitae (CV)

Basil Ahmed Abdullah Mohamed Darwish

Personal Information:

Academic Rank: Teaching Assistant

Department: Biomedical Engineering

Specialization: Signal Processing

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Education:

Degree	Discipline	Institution	Year
M.Sc.	Biomedical Engineering	Helwan University	2021 - Ongoing
B.Sc.	Biomedical Engineering	Higher Technological Institute 10th of Ramadan City	2020

Academic Experience:

Institution: **Higher Technological Institute 10th of Ramadan City.**

Rank: **Teaching Assistant**

Dates: **2020 – Ongoing**

Research interests:

- Biosignal processing.
- Medical imaging.
- Machine/Deep learning.
- Medical robotics.
- Bioinformatics.
- Video game development.

Publications:

- None to date.

Certifications or Professional Registrations:

Effective teaching and learning strategies for colleges and institutes of higher education, Egypt's National Authority for Quality Assurance and Accreditation of Education (NAQAAE) -September 2022.

Examination and student evaluation systems for colleges and institutes of higher education, Egypt's National Authority for Quality Assurance and Accreditation of Education (NAQAAE) - September 2022.

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Teaching Experience:

Courses taught

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Computer Programming:
Solve problems, design algorithms and write programs with C++ Language.

Automatic control:
Block Diagram - principles of inverse (closed loop) control - control system stability - design principles - sensing for various fields - applications.

Signal Analysis and Processing:
The signals and digital systems - signal analysis using Z-transform, Fourier transform, Discrete Fourier Transform (DFT), Fast Fourier Transform (FFT) - designing digital filters.

Random Signals and Information Theory:
Review of Probability Theory - Nature and definition of random signals - Transmission of random signals through a time-invariant linear system - Continuous signal modulation - Detection and discrimination of digital and analog signals - Introduction to Information Theory and Coding.

Electronics (3):
Review of Diodes and Transistors - Frequency response of amplifiers - Feedback amplifiers - Oscillators - Differential amplifiers - Operational amplifiers - Multilevel oscillators - Digital electronics - Circuits of advanced digital devices for small and medium scale integration - Registers - Counters - Computers - Memory.

Analysis Devices:
Devices for measuring voltage and conductivity differences - Devices for analyzing drug types and concentrations, measuring blood fat and hormones - Device for blood chemistry analysis using optical waves, ultraviolet, and infrared radiation.

Introduction to Biomedical Engineering:
The History of Biomedical Engineering - Different departments and branches of biomedical engineering - Similarities and comparisons between biological devices and engineering systems - Importance of engineering skills in the field of medical devices and equipment - Importance of mathematics and physics in studying biomedical engineering.