

Islam Ibrahim Abdelal

Alexandria, Egypt

+20-120-460-9271

es-eslam.ibrahim2026@alexu.edu.eg

in/islamibr29

@islamibr

Education

Alexandria University

Sep. 2021 – May 2026

BEng, Electrical Engineering, Electronics Major CGPA: 3.51

Alexandria, Egypt

- Key Courses: Circuits Analysis, Solid State Devices, Electronics I, Electronics II, C Programming
- Key Skills: VHDL, Quartus, ModelSim, LabVIEW, L^AT_EX, Python, C, Proteus, ElecNet, AutoCAD, Dialux, STK, PSpice, Multisim, TinkerCAD.
- Key Projects: MIM Capacitor and Magnetic Buzzer, Serial Data Receiver, 4-bit Up Counter with Parallel Load, AVOMeter/Multimeter, K-Map Calculator, Hex Keypad.

Experience

Research Experience

Alexandria University

Jun. 2023 – Present

Undergraduate Research Assistant

Alexandria, Egypt

- Under Supervision of Dr. Ishac Kandas and Dr. Eman Elzahaby, Working on Applied Optics Especially Photonic Integrated Circuits (PICs) and Optical Neural Networks (ONNs).
- Key Skills: Lumerical, COMSOL, MATLAB, Python, L^AT_EX, EdrawMax, Illustrator, Visio, Blender, Paint 3D, Mendeley, BIB_TE_X.

Publications

Unpublished Articles

- I. Ibrahim et al. “FinFET Chronicles: Navigating the Silicon Horizon in the Era of Nanoarchitecture”. Jan. 2024.
URL: <https://vixra.org/abs/2401.0029>.

Projects

Simulation

Smart Plant Care System | Arduino, ThinkerCAD

Aug 2022

I did the **Assessment** of automating care with soil sensors, buttons, and Arduino Uno for efficient watering control.

Smart Greenhouse System | Arduino, ThinkerCAD, UART

Aug 2022

I did the **Assessment** of three subsystems: Sensing, Master and Action, Soil - Using Arduino Uno for seamless control.

Programming

Robot Rental System | C++, OOP

Aug 2022

I did the **Assessment** of command-line app for managing robot rentals, user info, and seamless rental processes.

HDLs (RTL)

8x8 Bit Sequential Multiplier | Verilog, Vivado, QuestaSim

Aug 2023

I did the **Controller** Part of streamlined 8-bit operand multiplication, yielding a 16-bit product with multi-cycle computation.

Technical Skills

Simulation and Modeling

Circuits: Virtuoso

Devices: TCAD

PCBs: Proteus, Allegro

ASICs: QuestaSim, ModelSim

Programming and Scripting

Programming: C/C++, MATLAB,

Python

Scripting: L^AT_EX

Description and Implementation

HDLs (RTL): VHDL, Verilog

FPGAs: Quartus, Vivado

Languages

English: B2, Arabic: Native

Leadership / Extracurricular

Education Clinic

Aug. 2021 – Sep. 2023

General Coordinator

Remote

- Successfully transitioned from Jr. Graphic Designer to General Coordinator within a year, strategically bypassing the Team Lead role, under the guidance of Dr. Ramzy Abdelaziz.
- Boosted program completion rates by 20% through effective management of educational initiatives for a non-profit organization impacting 100,000+ students. Also contributed to a 30% surge in program participation rates.
- Key skills: Strategic Management, General Management, Project Management, Agile Management, Marketing, Creative Suite, Canva, Visme, Figma, Google Workspace, Office.

Hult Prize Egypt

Corporate Relations Specialist

Sep. 2022 – Jan. 2023

Remote

- Devised and executed effective corporate relations strategies, identifying and securing potential IEEE SAC and AIESEC partnerships and EG Bank sponsorship, resulting in a 50% increase in overall partnerships and sponsorships.
- Collaborated closely with the Hult Prize Egypt team and global network, ensuring seamless alignment with the organization's goals and objectives and contributing to the growth of a community of changemakers, resulting in a 3000 changemaker increase in community engagement and impact.
- Key skills: Event Management, Crisis Management, Public Relations Campaigns, Strategic Partnerships, Sponsorships and Fundraising.

Achievements

Recognition and Accomplishments

ICT Competition National Finalist by Huawei Academy
Young Egyptian Influencer by Magazine, 30.30
Global Nominee by NASA Space Apps Challenge
GSEC Top Achiever by Egyptian Ministry of Education

Licenses and Certifications

EF SET Score: 61-70/C1 · Mar 2021

References

Dr. Yasser Hassan

Ex-fellow, Oxford University
Ass. Prof., Qatar University
Case: Education Clinic Founder
✉ yhassan@qu.edu.qa

Dr. Ishac Kandas

PhD, Virginia Tech
Ass. Prof., Alexandria University
Case: Research Supervisor
✉ ishac@vt.edu