

Mohamed Ibrahim

Assistant Professor

Calgary, AB, Canada

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PROFILE

The academic and industrial experiences of 10+ years, have given me the talent of teaching in the areas of Software development, Data analytics and Web development. As a University of Calgary graduate, I have a strong academic background with the potential to further my education.

SKILLS AND QUALIFICATIONS

- 6 years of Academic experience in teaching programming languages.
- Frameworks and Databases: Microsoft SQL, MongoDB, Node.JS
- Experienced in Python, Matlab, C/C++, C#/.NET, HTML, CSS, and JavaScript.
- Fluent in English reading, writing, and speaking.
- Ability to organize and present lectures.
- Training and knowledge of undergraduate learning fundamentals.
- Experience with online videoconferencing and Learning Management systems.

EDUCATION

- 2021 **Software Development Certification of Achievement**
Continuing Education and Professional Studies, **SAIT**
- 2012 **Doctoral of Philosophy in Computer Engineering**
Department of Electrical and Computer Engineering, **University of Calgary**
Thesis Title: "Noise Figure Optimization of Fully Integrated Inductively Degenerated SiGe HBT LNAs".
Supervisors: Prof. Jim Haslett, and Dr. Leonid Belostotski
- 2005 **Master of Science in Communication Engineering**
Department of Electronics and Communication Engineering, Zagazig University
Thesis Title: "All CMOS Digital Technology ADC for VLSI System Applications".
- 1999 **Bachelor of Science in Communication Engineering**
Department of Electronics and Communication Engineering, Zagazig University, Egypt.

WORK EXPERIENCE

- 9/2017-4/2020 **Software Developer - Smart Labs Ltd, Calgary, AB**
Project Description: Designed the software and the hardware for the SmartVent product. The SmartVent controls the temperature of each room.
Method: Arduino controller for Bluetooth transceiver, Stepper motor, temperature sensor, and clock module
Programming stack: C++ and Python, Eagle, Cadence, and ADS.
Techniques: Troubleshooting the code using MS Visual Studio, testing and reviewing all the code changes.
GitHub: [Link](#), Product website: [Link](#).
- 10/2015-9/2017 **Software Developer - University of Calgary (Internship)**
Work on the improvement of the solar cell efficiency and automatic sun tracking using programming languages (C/C++) and software tools (Matlab)
Worked on Energy Saving using smart systems, for central heating/cooling systems

9/2019-8/2020 Department of Communications Engineering, Zagazig University

Assistant Professor

- Developed and conducted lectures, exams, tutorials, labs, and projects in many courses.
- Taught several courses in programming and computer engineering.
- Develop a funded research program appropriate to his field of specialization.
- Member of the Program accreditation (ISO accreditation)
- Member of Electronics research group of graduate and undergraduate students.
- Supervised several senior capstone design projects.
- Developed many labs in programming, database, and web development.

10/2015-9/2017 University of Calgary

Postdoctoral Fellow

- Experienced in using software tools (Matlab), programming languages (C/C++).
- Research on solar cell improvement and automatic sun tracking.
- Research on Energy Saving using smart systems, that is for central heating/cooling systems.

9/2012-9/2015 Department of Communications Engineering, Zagazig University

Assistant Professor

- Developed and conducted lectures, exams, tutorials, labs, and projects in many courses.
- Taught several courses in programming and computer engineering.
- Share in Oral and Practical exam committee for graduate and undergraduate levels
- Supervised several senior capstone design projects.

9/2006-8/2012 University of Calgary

Research Assistant

- Work as a Teaching Assistant for several courses in computer engineering.
- Modelling low noise amplifier using Matlab in the RF range.
- Experienced in using Vector Network analyzer and Noise Source Tuner.
- Designed the DeFET using ASIC design tools for working in Biomedical application

1/2000-8/2006 Department of Communications Engineering, Zagazig University

Teaching Assistant

- Assist in developing and instructing lectures, tutorials, labs, assignments, and projects.
- Experienced in teaching programming languages including C, C++, and Matlab.
- Exerted in theory and lab skills of implementing and troubleshooting basic digital logic circuits.

PROFESSIONAL MEMBERSHIPS

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| - Alumni Association, University of Calgary | 2012 – present |
| - The Egyptian Syndicate of Engineers | 1999 – present |
| - The Institute of Electrical and Electronics Engineers (IEEE) | 1998 – present |

REFERENCE

References are available upon request