Abdelrahman Elewah

Graduate Research and Teaching Assistant
Ontario Tech University
Mobile Phone: +1 289-939-6665
Address: Whitby, Ontario, Canada
E-Mail: abdelrahman.elewah@ontariotechu.ca

Current Position

Full Time	Graduate Research and Teaching Assistant	**January 2020**
Organization	Ontario Tech University	
Department	Electrical, Computer, and Software Engineering	
Research fields	**Public Sensing**	
	IoT - Machine Learning	

Experience

Full Time	Teaching Assistant	**January 2014**
Organization	Benha Faculty of Engineering-Benha University	
Department	Electrical- Electronics and Communications Engineering	
Job Description	Handle large classes in learning activities, grading and other administrative activities	

EDUCATION

MSc, Electrical Engineering   March 2018

Benha Faculty of Engineering- Benha University, Benha, Egypt

Subjects in Master:
- Mathematics
- Digital communication systems
- Trend in communication new systems
- Digital signal processing
- Information theory

B.Sc, Electrical Engineering   June 2012

Benha Faculty of Engineering- Benha University, Benha, Egypt

Grade: **Excellent** With **Honor Degree**

Graduation project **Mine detection system**
- Quadcopter installation
- Implementation of tracking system using GPS and GSM
- FPV system "Real time video link" installation
- Implementation of metal detector

List of Publication

[1] A. Elewah, W. M. Ibrahim and K. Elgazzar, "Paving the Way for Massive Public Sensing as a Service," 2022 IEEE 47th Conference on Local Computer Networks (LCN), 2022, pp. 391-394, doi: 10.1109/LCN53696.2022.9843516.

[2] A. Elewah, W. M. Ibrahim, A. Rafıkl and K. Elgazzar, "ThingsDriver: A Unified Interoperable Driver for IoT Nodes," 2022 International Wireless Communications and Mobile Computing (IWCMC), 2022, pp. 877-882, doi: 10.1109/IWCMC55113.2022.9824989.

[3] A. Elewah, A. A. Badawi, H. Khalil, S. Rahnamayan and K. Elgazzar, "3D-RadViz: Three Dimensional Radial Visualization for Large-Scale Data Visualization," *2021 IEEE Congress on Evolutionary Computation (CEC)*, 2021, pp. 1037-1046, doi: 10.1109/CEC45853.2021.9504983.

[4] A Elewah, A Taman, AA Awamry, M Elbahy "Mth Root Mth Power SNR MPSK Estimator",   12th International Conference Mechatronics, Brno, Czech Republic 6-8/09/2017.

The Latest Works on The Machine Learning Field

1- Releasing the RadViz python package that is used in visualizing high dimensional dataset https://pypi.org/project/RadViz-Plotly/
   This package was released in 22 of Aug 2020, and it has been downloaded more around 15k times. Click here to check the downloads' counts.
2- Creating a repository that contains examples that explain how to use the RadViz package, and this repository is connected to the online Jupiter Lab where the users can run the examples without local installation. Click here to check the examples repositories.
3- Taking machine learning courses. Click here to check my certifications

The Latest Activities and Achievements

I- Published a paper in the WCMC22 conference with the title: *ThingsDriver: Unified Interoperable Driver for IoT Nodes (UIDI) here* and the published open-source repository here.
II- Accepted Paper in the LCN conference with the title*: Paving the Way for Massive Public Sensing as a Service.*
III- Attended (Amazon Web Service) AWS Summit in Toronto.

Achievements

One of the ICT winners in InnoEgypt incubation program   **January 2019**
In the proposed idea, Tamra introduces the Internet of Things (IoT) platform.

First Place Winner in Mobile Application Launchpad MAL competition
Technology and inovatation track   **April 2017**
The proposed idea is to replace the lift buttons with a tablet running Android OS. In other words integrate the lift with android OS.

Teaching experience

Currently teaching courses at Ontario Tech University
1. ENGR1200U - Introduction to programming   **Winter 2020**
2. SOFE3200U - Systems programming   **Fall 2020/Fall 2021**
3. SOFE3700U - Data Management Systems   **Fall 2020**
4. ELEE2210U - Circuit Analysis   **Winter 2021/Winter 2022**

Previous teaching courses at Benha faculty of engineering
1- Electromagnetic field theory
2- Object-oriented programming
3- Electronics workshop
4- Computer architecture

Previous teaching courses at Arab Academy for Science, Technology & Maritime Transport-Smart village

1- Digital logic
2- Networks

Previous teaching courses at Benha Faculty of Engineering

1- Micro-controller
2- Embedded systems
3- Networks

Technical Skills

programing language
1. Python
2. C++
3. Embedded C
4. VHDL
5. Assembly
6. Arduino c

Simulation program
1. GNU-Radio
2. MATLAB
3. Xilinx
4. Proteus

Personal Skills

GRE Test score
- Quantitative **160**

Volunteering
- Volunteer in EED-2009 and 2010 as Public Relations Officer
  "The Egyptian Engineering Day" 1-2 August 2009 Cairo International Conference Center
  "The Egyptian Engineering Day" 2-3 August 2010 smart village
  "The Egyptian Engineering Day" 6 -7 September 2011 Cairo International Conference Center

Soft Skills

- Team work
- Leadership
- Communication
- Self-Motivated
- Presentation
- Negotiations
- Time Management
- Problem Solving