

# MOSTAFA ABDALLAH ABBAS ATWA ELGENDY

**PERSONAL INFORMATION** **Date of birth:** 20/07/1986.  
**Place of birth:** Monofiya, Egypt.  
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**EDUCATION** **PHD OF COMPUTER SCIENCE, PANNONIA UNIVERSITY, HUNGARY, 2021**

Thesis Title: "Indoor Navigation for People with Visual Impairment"

**M.SC OF COMPUTER SCIENCE, BENHA UNIVERSITY, EGYPT, 2015**

Thesis Title: "Towards Augmenting Computing Capabilities of Mobile Applications Using Cloud Computing"

**B.SC OF COMPUTER SCIENCE, MENOUIYA UNIVERSITY, EGYPT, 2007**

Major Courses: Software Engineering, Database Systems, Java Programming, Compiler Design, Machine Learning, Natural Language Processing, Distributed Systems, Operating System.

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**WORK EXPERIENCE** **PHD STUDENT - UNIVERSITY OF PANNONIA - HUNGARY 09/2017 – 12/2021**

Faculty of Information Technology, Department of Electrical Engineering and Information Systems

The aim of my research is to propose solutions using Mobile Assistive Technology to help people with visual impairment to interact with the outside world without any help from other people.

**MOBILE APPLICATION EDUCATORS 2015 – 2017**

IBM Egypt

A faculty member of a Higher Education Institution which has implemented the IBM Skills Academy Program

**CLOUD APPLICATION EDUCATORS 2015 – 2017**

IBM Egypt

A faculty member of a Higher Education Institution which has implemented the IBM Skills Academy Program

**TEACHING ASSISTANT AT COMPUTER SCIENCE DEPARTMENT 09/2015 – 09/2017**

Faculty of Computers and Informatics, Benha University, Egypt

I am teaching assistant at department of computer science. I am responsible for teaching practical labs and assist professors in preparing courses. Additionally, I am working as supervisor on students graduating projects related to mobile applications and embedded systems

**STUDY GROUP LEADER 06/2016 – 12/2016**

Mobil Application Launchpad (MAL-Cohort D- MAL-Cohort E), Google Egypt

It's a scholarship by Google and Udacity which teaches students Mobile Application Development using Android.

**DEMONSTRATOR AT COMPUTER SCIENCE DEPARTMENT 07/2009 – 09/2015**

Faculty of Computers and Informatics, Benha University, Egypt

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**TRAINING SECOND LUDI TRAINING SCHOOL “PLAY FOR CHILDREN WITH DISABILITIES”, ITALY, 2018**

The Trainees had the opportunity to gain knowledge and experience about the main topics by engaging with the voices of children with disabilities, parents, educators and therapists and other significant stakeholders who were invited to be part of the event

**MOBILE APPLICATION LAUNCHPAD PROGRAM, GOOGLE AND UDACITY, EGYPT, 2016**

This is a training course on developing android mobile application and after finishing it, I become study group leader on this program

**CLOUD APPLICATION DEVELOPER WITH IBM BLUEMIX, IBM, EGYPT, 2016**

A course for developing applications on a hybrid cloud development platform, using IBM Bluemix.

**MOBILE APPLICATION DEVELOPER WITH WORKLIGHT STUDIO V6.2, IBM, EGYPT, 2015**

A course to develop, test, debug and deploy hybrid mobile applications.

**INFORMATION STORAGE & MANAGEMENT (ISM), EMC<sup>2</sup>, EGYPT, 2014**

A short-term training to learn some concepts of information storage management.

**JAVA SE 7 PROGRAMMING ED 2 PRV, ITI, EGYPT, 2013**

A training given by Oracle at ITI institute and covered some java advanced topics.

**ARCGIS, ESRI NORTHEAST AFRICA, EGYPT, 2012**

Short-term training course on ArcGIS Desktop Tools, Functionality, GIS Workflows and Analysis.

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**CERTIFICATIONS MOBILE APPLICATION DEVELOPER, IBM**

**AND AWARDS** Mobile Application Developer with Worklight Studio v6.2 (id: 0128-1432-5573-2577)

**CLOUD APPLICATION DEVELOPER, IBM**

Cloud Application Developer with IBM Bluemix, (ID: 4111-1451-8172-1165)

**ANDROID DEVELOPER NANODEGREE, UDACITY**

Android Developer Nanodegree, confirm link (<https://confirm.udacity.com/XWKVZSGN>)

**MOBILE APPLICATION LUNCHPAD AWARD, GOOGLE**

Google Mobile Application Launchpad Tech &Innovate Track Competition honor, 2017

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**PUBLICATIONS** **Mostafa Elgendy**, Cecilia Sik Lanyi and Arpad Kelemen. **"A Novel Marker Detection System for People with Visual Impairment Using the improved Tiny-YOLOv3 model"**. computer methods and programs in biomedicine, Elsevier, Volume 205, **2021**, 106112, ISSN 0169-2607. IF: 5.428.

**Mostafa Elgendy** and Cecilia Sik Lanyi. "Helping People with Visual Impairments to Avoid Obstacles Using Deep Learning". In Proc. of the 6th International Congress on Information and Communication Technology (ICICT), **(2021)**. Springer.

**Mostafa Elgendy**, Tibor Guzsvinecz and Cecilia Sik Lanyi. **"Indoor Navigation for People with Visual Impairment using Augmented Reality Markers"**. In Proc. of the 10th IEEE International Conference on Cognitive Infocommunications (CogInfoCom), **(2019)**, pp. 425-429. IEEE.

**Mostafa Elgendy** and Cecilia Sik Lanyi. **"Comparing QR Codes with Aruco Markers Using Indoor Navigation Prototype for People with Visual Impairment"**. In Proc. of the IEEE 31th Neumann Colloquium (NC), **(2019)**, pp. 19-24.

**Mostafa Elgendy**, Tibor Guzsvinecz and Cecilia Sik Lanyi. **"Identification of Markers in Challenging Conditions for People with Visual Impairment Using Convolutional Neural Network"**. Applied Sciences Basel, 9(23): Article Number: 5110, **(2019)**. IF: 2.679.

**Mostafa Elgendy**, Viktor Földing, Miklós Herperger and Cecilia Sik Lanyi. **"Indoor Navigation for People with Visual Impairment."** In Proc. of the Association for the Advancement of Assistive Technology in Europe Conference (AAATE), **(2019)**.

**Mostafa Elgendy**, Cecilia Sik Lanyi and Arpad Kelemen. **"Making Shopping Easy for People with Visual Impairment Using Mobile Assistive Technologies"**. Applied Sciences Basel, 9(6): 1061- 1076, Article Number: 1061, **(2019)**. IF: 2.679.

**Mostafa Elgendy**, and Cecilia Sik Lanyi. **"Review on Smart Solutions for People with Visual Impairment."** International Conference on Computers Helping People with Special Needs. pp. 81-84, Springer, **(2018)**.

**Mostafa Elgendy**, Ahmed Shawish, and Mahmoud I. Moussa. **"An Enhanced Version of the MCACC to Augment the Computing Capabilities of Mobile Devices Using Cloud Computing."** International Journal of Advanced Computer Science and Applications (IJACSA), Special Issue on Extended Papers from Science and Information Conference. pp. 1-10, **(2014)**.

**Mostafa Elgendy**, Ahmed Shawish, and Mahmoud I. Moussa. **"Enhancing Mobile Devices Capabilities in Low Bandwidth Networks with Cloud Computing."** International Conference on Advanced Machine Learning Technologies and Applications. pp. 97-108, Springer, **(2014)**.

**Mostafa Elgendy**, Ahmed Shawish, and Mahmoud I. Moussa. **"MCACC: New approach for augmenting the computing capabilities of mobile devices with Cloud Computing."** Science and Information Conference (SAI). pp. 79-86, IEEE, **(2014)**.

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**TEACHING SKILLS** **DEMONSTRATOR AND TEACHING ASSISTANT AT COMPUTER SCIENCE DEPARTMENT, 2009-2017**

I worked as demonstrator and taught the following courses:

- Object Oriented Programming with Java.

- Advanced Java Programming.
- Introduction to Database management Systems.
- Advanced Database with Oracle and SQL Server.
- Introduction to Information Systems.
- Software Engineering.
- Data Structures using C++.
- Introduction to Algorithms.
- Computer Graphics.
- Information Storage and Management.
- Mobile Application development with Android.

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#### **SUPERVISED SMART PARKING SYSTEM, 2016**

**PROJECTS** A safety system that allow user to park his car by mobile application and tracking it after leaving the garage using raspberry pi and android.

#### **MOBILE 3D FURNITURE MODEL STORE, 2015**

A mobile application that present product of furniture in 3D model that you can view all parts in the products as a real view.

#### **ANDROID TRANSPORTATION SMART SERVICE, 2013**

A mobile application that delivers transportation bus services by tracking bus capacity, tracking traffic in bus route and deliver them to help bus user to take the appropriate decision that saves his time.

#### **INTELLIGENT MOBILE GPS SERVICE, 2012**

Mobile application which provide users with some services according to their current location to add additional protection and safety.