AHMED HUSSEIN SALAMAH

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Academic Education

September 2014 - January 2017	• **Master Degree** in **Communications and Electronics Department** from Faculty of Engineering**.** • **Arab Academy for Science and Technology and Maritime Transport (AASTMT).** • GPA **4** out of 4 **(Full Scholarship)**. • Thesis Title "**Investigation of the Benefits of Using Machine Learning Approaches in Wi-Fi Indoor Localization Systems**".
September 2009 - July 2014	• **Bachelor Degree** in **Communication and Electronic Department** from Faculty of Engineering**.** • **Arab Academy for Science and Technology and Maritime Transport (AASTMT).** • GPA **3.98** out of 4. • Ranked **3rd** on my Class. • Graduation Project "**Humanoid Robot Controlled with Android Application and Voice Interaction**".

Publications

Ahmed Hussein Salamah, Mohamed Tamazin, and Maha Sharkas, "**Investigation of the Benefits of Using Machine Learning Approaches in Wi-Fi Indoor Localization Systems**," in Proceeding of the Journal of Navigation. (forthcoming)

Ahmed Hussein Salamah, Mohamed Tamazin, Maha Sharkas, and Mohamed Khedr, "**An Enhanced WiFi Indoor Localization System Based on Machine Learning**, " in Proceeding of Indoor Positioning and Indoor Navigation (IPIN), 4th – 7th October 2016.

Teaching and Academic Qualifications

Current Job	Research and Teaching Assistance as a Full-time in Arab Academy for Science and Technology and Maritime Transport (AASTMT).
September 2014 – January 2017	Research and Graduate Teaching Assistance as a Full-time in AASTMT.
Taught Courses	1- Introduction to Digital Communication Systems 2- Multimedia Communication Systems 3- Signals and Communication Systems 4- Analog and Digital Signal Processing (Mechatronics Department). 5- Analog Signal Processing 6- Digital Signal Processing 7- Fundamental of Electronic Devices 8- Electronic Amplifiers 9- Electronic Measurements 10- Solid State Materials 11- Fundamental of Electrical Circuits

Responsibilities	1- Assisted academic staff with organizing and delivering their teaching material. 2- Assisted in planning and teaching of new technical academic material to undergraduate students during the Tutorial and laboratory sessions. 3- Guidance of undergraduate students in registration, logistical and academic issues as well as scientific practical projects.

Internships and Trainings

JUNGHEINRICH - Cairo (2nd – 14th February 2013)	**Training** conducted at **JUNGHEINRICH** (**German Company** at CAIRO) included: Forklift designs, its **Electronic Motor Design** and the **Circuit Diagram** of every forklift with its troubleshooting.
Alcatel Lucent University – Cairo (June – July 2012)	**Internship** at **Alcatel Lucent University** as a Department of career developing at **Alcatel-lucent Company**, I took the following Courses: Core (NSS), IN, GPRS, VAS.

Radio Team that Manage Mobinil Network at Alcatel-lucent - Cairo (June - September 2012)	**Internship** at the **Radio Team responsible for managing Mobinil Network** at Alcatel-Lucent and Responsibility includes:
	A. As Performance:
	  1- Frequency Planning. 2- Monitoring
	  3- KPI's Investigation. 4-Downgrade & Upgrade.
	B. As Optimization Parameter:
	  1- NPO 2- TEMS 3-MapInfo
	  4- Asset 5- Omnix

Vodafone –Alexandria (April 2014)	**Training** with **Research and Development Team** at Vodafone for two weeks and learned: GSM Architecture, InBuilding Solutions and Transmitting lines.

Technical and Academic Skills

Programming Languages	C , Python, Basic Knowledge of Java, Assembly language and Visual Basic.
Key features of Research	1- An **Android Application** was developed to collect **Wi-Fi RSSI Readings and the Mobile sensors** that's works as a server base in the indoor localization application. 2- **Body-coupled communications** by Wireless Body Area Networks technology (BANs) on BodyCom Development Kit by Microchip. 3- Machine Learning, Pattern Recognition and Neural Networks Applications using Matlab. 4- Multimedia Communication Systems (Video and Audio Compression). 5- Basic Knowledge of **Deep learning** and **Game theory**.

Software (Platforms / Tools)	Microsoft Windows and Debian Linux (Ubuntu and Raspbian), OpenCV (Basics), Basic Knowledge of NS2 and NS3, Matlab, Simulink, Eagle, Proteus, Atmel Studio (AVR Microcontrollers) and Code Vision AVR, Android Studio. **Certified:** ICDL version 5 on August 2016.

Academic Projects and Activities

Graduation Project	A **Humanoid Robot** is designed with 20 degree of freedom Robot, which is controlled remotely by a **Mobile Application** (APK). The robot is connected by Bluetooth, GSM Module and Voice Interaction and Commands. This humanoid operated with the control of the **Microcontroller** and **Raspberry Pi**, which they are responsible for Face detection and Recognition. The **Inverse kinematics** modeling is applied on the end effector to catch the detected objects upon a reference point.
Competitions related to Graduation Project	1- Participated to the final phase in Made in Egypt Competition (**MIE**)**.** 2- Participated in the Egyptian Engineering Day (**EED**). 3- Participated in the scientific day of the **Egyptian Military Technical College**.
Activities	1- Presented my paper in **Indoor Positioning and Indoor Navigation (IPIN2016) Conference.** 2- Volunteered to lead a **ROV** Team as a **Technical Mentor**. 3- Participated in **Valeo Innovation Challenge (2015 and 2017).** 4- Volunteered to be a **Technical Advisor** for Intel IOT Products at **IEEE-AASTMT**. 5- Participated with my team in **Hackathon Egypt** and reached the Final Phase. 6- Volunteered to Supervise on "**SmartAuto: Advanced Driver's Monitoring and Assistance System**" in **IBTIECAR 2014 Competition** that reach the 3rd place. 7- First ranked in **Sumo-Robotics Competitions** under the organization of IEEE-AASTMT branch. 8- Volunteer at **Life Makers Foundation**, which is a non-profit organization aims to the development of our society through empowering youth by raising and strengthening their capabilities.
Other Projects	1- Face Recognition (Feature Extraction Approach). 2- Optical Network (FPGA Implementation). 3- Home Automation (based on ESP8266 connected to main server). 4- MedicaMinder (Smart medical box). 5- Network Simulation of the University. 6- Inverse Kinematics Modeling in a Robotic Arm. 7- Mobile Device (Microcontrollers and GSM). 8- Blood Pressure and Heart Beat Sensor Design.

References *Available on Request*