Mohmed Ali Mohammed Torad, PhD

I.   Personal information

Mobile	+201099554541
E-mail	mohamed.torad@gmail.com
Languages	English (Excellent) - Arabic (native) - Deutsch (Fair)
MS Office:	Word, PowerPoint, Excel, OneNote, Visio.
Network:	N+ course, OPNET modeler.
Programming:	Assembly, visual studio, C++, MATLAB, Java, LABVIEW Circuit Design (program studio), Simulation (AUTOCAD, protues),
Electronics:	PCB. (PSpice, Eagle), dialux.
GitHub	https://github.com/MOHAMEDTORAD
LinkedIn	www.linkedin.com/in/dr-mohamed-a-torad-137b1a62
ORCID	https://orcid.org/0000-0001-8621-4410
Publon RID	https://publons.com/researcher/H-9636-2017/

II.   Education
A. Degree-seeking/degree-granting

Ain Shams University	Ph.D. wireless mobile communication Dissertation: *Spectrum Sensing for Improved QoS of Cognitive Radio Networks*	2016
Ain Shams University	M.Sc. wireless mobile communication Thesis*: Interoperability between LTE Rel.11 and WiMAX IEEE 802.16m*	2012
Higher Technological Institute	B .Sc. Electrical Engineering Thesis: Secure VOIP	2007

B. Licenses

License	Number	Country	Year
Egypt syndicate of engineering	8800316	Egypt	2008
IEEE (Institute of Electrical and Electronics Engineering)	80037022	Egypt	2005
IEEE CIS (IEEE Computational Intelligence Society)	80037022	Egypt	2005
NI Certified LabVIEW Associate	100-314-7093	Egypt	2014

III. Employment
A. Academic Employment

Rank	Organization	Department	Year
Assistant professor	Higher Technological Institute	Electronics & Communication	2016- present
Assistant professor	Future University in Egypt (FUE)	Mechatronics	2018- present
Assistant professor	Culture and Science City	Computer Science	2016- 2017
Assistant professor	Culture and Science City	Electronics & Communication	2016- 2018
Lecturer	Higher Technological Institute	Electronics & Communication	2012- 2016
Lecturer assistant	Higher Technological Institute	Electronics & Communication	2008- 2012

B. Non-Academic Employment

Company Name	Title	Role	Year
ATSC (Advanced Technology Systems Company) www.atscva.com	Presale's engineer	For building restore	2011
NASSAR engineering	Design engineer	Electrical Design for: * Military airport located in KASHM EL-AAN at KSA. * Conference center located in MADDINA MONAWARA at KSA.	2010

Egyptian Armed Force	Presale's engineer	Many projects	2010-2014
Egyptian air defense forces	Signal solder	Military services	2011

C. Publications
I. Peer reviewed publications

1. Nirmin Monir, Maha M Toraya, Andrei Vladyko, Ammar Muthanna, **Mohamed A Torad,** Fathi E Abd El-Samie, Abdelhamied A Ateya (2022). *Seamless Handover Scheme for MEC/SDN-Based Vehicular Networks*, Journal of Sensor and Actuator Networks, January 2022, DOI: 10.3390/jsan11010009.

2. **MA Torad**, MA Salam (2021), *Smart helmet using internet of things*, International Journal of Reconfigurable and Embedded Systems (IJRES), Vol. 10, No. 2, pp. 90-98.

3. MA Salam, **MA Torad** (2021), *An Intelligent Approach for COVID-19 Detection Using Deep Transfer Learning Model*, I.J. of Electronics and Information Engineering, Vol.13, No.2, PP.66-76, June 2021

4. **Mohamed A. Torad,** Y.H. Hossamel-Din(2021), *Smart Ambulance Using IOT for Blood Transfer Facilities*, Indonesian Journal of Electrical Engineering and Computer Science.

5. Lamia N Mahdy, Kadry A Ezzat, **Mohamed Torad**, Aboul E Hassanien (2020), *Automatic segmentation system for liver tumors based on the multilevel thresholding and electromagnetism optimization algorithm*, international journal of imaging systems and technologies.

6. Muhammad Yousef, **Mohamed A Torad** (2019), *A Treatise on Conversational AI Agents: Learning from humans' behaviour as a design outlook*, The International Conference on Electrical and Computing Technologies and Applications (ICECTA).

7. **Mohamed A Torad,** Ahmed El-Kassas, Hadia El-Hennawy (2016), *Wide-Band Sensing and Optimization for Cognitive Radio Networks using multi-rate sub-Nyquist spectrum sensing (MS3)*, MOWNET 2016, 11-13 APRIL 2016.

8. **Mohamed A Torad,** Ahmed El-Kassas, Hadia El-Hennawy (2015), *Cooperative Wideband Spectrum Sensing Over Rician and Nakagami Fading Channels*, ISSPIT 2015, 7-10 DEC 2015.

9. **Mohamed A Torad,** Ahmed El-Kassas, Hadia El-Hennawy(2011), *Comparison between LTE and WiMAX based on system level simulation using OPNET modeler (release 16)*, NRSC 2011, 26-28 APRIL 2011.

II. Peer-Reviewed Publication under review

1. **Mohamed A. Torad**, Belgacem Bouallegue, Abdelmoty M. Ahmed, *A voice controlled smart home automation system using Artificial Intelligent and internet of things*, TELKOMNIKA Telecommunication computing electronics and control (accepted for publish).
2. **Mohamed A. Torad**, Belgacem Bouallegue, Abdelmoty M. Ahmed, *Smart Garage using internet of things (IoT)*, Journal of sensors
3. **Mohamed A. Torad**, Mohamed Abd ElHamid, Belgacem Bouallegue, Abdelmoty M. Ahmed, *IoT data security based on AES encryption Algorithm*, Journal of Supercomputing.
4. Belgacem Bouallegue, Abdelmoty M. Ahmed **Mohamed A. Torad**, A secure Hardware implementation for Elliptic Curve Digital Signature Algorithm.

III.   Peer-Reviewed Publication in preparation
1. 6th generation of mobile communication survey
2. Optimize Handover in 4th generation of mobile communication using SON System using ML.

IV.   Awards and Honors
A. Awards and Honors

Faculty of Engineering, Higher Technological Institute, Graduated with honor and excellence, 2007

V.   Workshop and training
A. Research-based training

Training name	Training place		Year
University Exams and Digital Question Banks	DAAD Akademie	Kairo	**Oct 2021**
Fundraising Skills and Best Practices	DAAD Akademie	Kairo	**Nov 2021**
Constructive assessment for learning	DAAD Akademie	Kairo	**Dec 2021**

B. Electronics and communication training

Training name	Training place	Year
small scale thermal solar district units for Mediterranean communities. concentrating solar multi-generation plants	**Higher Technological Institute (HTI)**	Aug2014

Essential C++	**Information Systems Institute**	Oct 2010
MATLAB Programming	**Cairo university**	Oct 2010
Introduction to MATLAB	**Cairo university**	Aug 2010
Voice Over IP	**LEGEND Technology**	Mar 2007
• **GSM** • **GSM Planning** • **GPRS** • **GPRS Planning** • **CDMA** • **CDMA Planning** • **UMTS** **UMTS Planning**	**LEGEND Technology**	Aug 2007
• **Digital Telephony** • **EWSD System Introduction** • **Standard Maintenance tasks for peripheral Units** • **Analog subscriber & PBX Administration** **GSM Introduction**	**SIEMENS**	Jul 2006
• **Principles of power & control circuit.** • **Introduction for analog & digital closed loop control systems.** • **Process & Controllers type.** • **Physical principles of pneumatic.** • **Function & Symbol of pneumatic Component.** • **Specification of PLC and using step5 program.** • **PLC application in industry using simulator.** • **Design and production of PCB.** • **Power Electronics.** • **Measuring of electronic component.** • **Understanding of Micro controller.** **Step5 - pneumatic Circuit - Sensors - Stop and Emergency Function.**	**Technology Competency Center**	Jul 2005
• **A+ Core Hardware & Network Essentials Certificate.** • **N+.** • **Microsoft Certified desktop Support technician.**	**Prime Soft**	Jul 2004

C. Teaching training

Training name	Training place	Year

Teacher preparation course	Higher Technological Institute	2020
Exam question making	Higher Technological Institute	2020

VI.   Academic and peer-review

1. Ad hoc reviewer

- International Conference on Microelectronics (ICM)
- IEEE International Multi-Conference on Systems, Signals & Devices

VII.   Teaching

A. Lecture courses taught

Course name	Main topics	University	Year
Digital Design	Electronics digital design	Faculty of engineering, Future University in Egypt	2018 till 2021
Digital Design	Electronics digital design	Faculty of engineering, Higher Technological Institute	2018 till 2021
Computer Programming	C++ programming Java script Programming	Faculty of engineering, Higher Technological Institute	2021
Microprocessor	AVR Microcontroller using Assembly and c PIC Microcontroller using Assembly and c	Faculty of engineering, Higher Technological Institute	2021 till now
Microprocessor	8051 Microcontroller using Assembly and c	Faculty of engineering, Future University in Egypt	2018 till now
Design of real time embedded systems	Arduino Microcontroller and its applications	Faculty of engineering, Future University in Egypt	2018 till now
Sensors	Different types of sensors	Faculty of engineering, Future University in Egypt	2019
Computer Graphics	Computer Graphics	Faculty of Computer Science Culture and Science City 6th of October City	2016 till 2017
Artificial Intelligent	Artificial Intelligent	Faculty of Computer Science Culture and Science City 6th of October City	2016 till 2017

Computer Security	Computer Security including different types of encryption techniques	Faculty of Computer Science Culture and Science City 6th of October City	2016 till 2017
Multimedia	Multimedia	Faculty of Computer Science Culture and Science City 6th of October City	2016 till 2017

B. Lab courses taught

Electrical Circuit	Passive electrical components Experiments		
Operational amplifier laboratory	Operational amplifier experiments	**Faculty of engineering, Higher Technological Institute**	**2008-2012**
Microcontroller	PIC Microcontroller applications using Assembly and c.		
Embedded systems	Arduino Microcontroller applications	Faculty of engineering, Future University in Egypt	2018 till now

C.

i. **Undergraduate students mentored**
  ➢ *Higher Technological Institute*

  Funded project:

  1. Smart Ambulance Using IOT for Blood Transfer Facilities. (Shady)
  Graduation Projects:

  20 Graduation Projects includes the following topics:
  1. 4th and 5th generation of mobile communication (physical layer and handover). (Mohamed - Ghareeb)
  ii. Internet of Things applications and security. (Mohamed Abd El-hamied)
  iii. Image processing for diseases detection (e.g., liver tumor, lung tumor) (Ahmed Khaled)

  ➢ *Future University in Egypt*

  Graduation Projects:
  1. Smart garage using IoT. (Ammar)
  2. Multi-task automatic storage and retrieval system (ASRS) (Hamdy)

- *Culture and Science City*
  Graduation Projects:

  9 Graduation Projects includes:

  AI Home Automation (Mohamed Youssef)
  Remote ICU Medical System (Abd El-Rahman)
  Secured bitcoin transfer machine (BTM) (Mohamed Gamal)
  Internet of Things Helmet for safety Purpose (Amr)
  Smart

  Zagazig university

  Two students

  Maha
  Nirmen

iv.   Graduate students mentored

i.   Service

a.   Community service
- Organizer of annual department conference and speaker for newcomer students.
- Participant of Annual orphan day organized by Higher Technological Institute

ii.   Statistical skills
Programs used: Python – Java – C++ - Assembly – Embedded C – Arduino – MATLAB - SQL

iii.   Presentation skills
Programs used: PowerPoint – Prezi - Fusion360 – Photoshop - Focuskey

Skills abilities: Animation – transition – slideshow - Interactive presentation - 3D animation and

modeling - Manipulating photos