

## Curriculum Vitae of Rabie A. Ramadan, Ph.D.

**Name:** Rabie A. Ramadan  
**Phone :** (+966 561655010)  
**E-mail :** [rabie@rabieramdan.org](mailto:rabie@rabieramdan.org)  
**Web:** <http://www.rabieramdan.org>



### Current Positions:

- **Computer Engineering Department Chair**, University of Hail, Saudi Arabia.
- **Associate Prof.** (Senior Lecturer) at Computer Engineering Department, Faculty of Engineering, Cairo University.
- **Assistant Prof.** (Senior Lecturer) at Computer Science and Engineering College, Hail University , Hail Saudi Arabia.
- **Honorary Lecturer** of University of Liverpool, online teaching.
- **Head of IoT** research group, Computer Engineering Department, Cairo University , Egypt.
- **Head and founder of Applied Sensing Technology Research Laboratory (Appls-LAB)**, Computer Engineering Department, Cairo University, Egypt.
- **Head of Smart Environments and Computational Intelligence Research Group**, College of Computer Science and Engineering, Hail University, Saudi Arabia.
- **Director of industrial partnership program**, College of Computer Science and Engineering, Hail University, Saudi Arabia.

### Professional Experience:

- *2019- present:* Software Development Consultant, Social and Development Study Deanship.
- *2017- present:* Executive manager for center of electronics and software applications development, University of Hail.
- *2014- present:* Associate professor (Senior Lecturer), Computer Engineering Department, Cairo University, Egypt.

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- *2014-present*: Associate professor (Senior Lecturer), College of Computer Science and Engineering, Hail University, Saudi Arabia.
- *2019- present*: Honorary Lecturer of University of Liverpool , online teaching.
- *July 2009- May 2014*: Assistance Professor (Lecturer), Computer Engineering Department, Cairo University, Egypt.
- *July 2008 – May 2011*: Assistance Professor (Lecturer), Media and Information Technology Department, German University in Cairo (GUC).
- *October 2007- July 2009*: Assistance Professor (Lecturer), Systems and Computer Department, Alazhar University, Egypt.
- *May 2005- October 2007*: Developer and Research Engineer at Banc. Of America Securities, Frisco, Dallas, TX, USA.
- *January 2003- October 2007*: Research Assistance, Computer Science and Engineering, Southern Methodist University, USA.
- *May 1994- January 2003*: Research Associate, Systems and Computers Department, Alazahr University, Egypt.

### **Education:**

- *May 2007*: Ph.D. in Computer Science and Engineering, Southern Methodist University, Dallas, TX, USA.
- *May 2005*: Masters in Computer Science and Engineering, Southern Methodist University, Dallas, TX , USA.
- *May 1998*: Masters in Computer Engineering, Cairo University, Egypt.
- *June 1994*: B.SC. in Systems and Computer Engineering , Alazhar University, Egypt.

### **Industry Experience and Collaboration:**

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*I have maintained a strong relation with industry for knowledge transfer* and working on real world problems. Through the years, industry becomes a resource of funding as well as part of course development at Universities. Therefore, my relationship with major companies is based on emerging real industrial experience into the curriculum of the Universities courses such as networks, Security , and programming courses. In addition, I benefit from industry relationship in finding realistic projects for my students as well as funded projects. The following is my experience with industry:

- ***Center of Applications and Electronics Development*** - Cofounder and Executive Manager.
- ***TripleTech Expert House***- Cofounder and Executive Manager.
- ***Vodafone Telecommunication Company*** in the capacity of funding as well as partnership on network optimization and on many of the research and students graduation projects.
- ***Intel Company*** in the capacity of funding and sponsoring the Internet of Things (IoT) lab at Cairo University.
- ***Banc of America Securities***, Frisco, Tx, USA where I was working there as a senior developer using Java, C++, and C#. In addition, developing software with security in mind was our challenge.
- ***Smartec Company*** in the capacity of representing the company on the Web of Objects funded project as well as many other projects.
- ***Microsoft Company*** in the capacity of coordinating their Academy and teaching some of their courses such as Security Fundamentals course at Hail University, KSA.
- ***Cisco networking*** in the capacity of coordinating their Academy and teaching some of their courses such as IT Essentials and Internet of

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Everything courses at Hail University, KSA.

- ***International Telecommunication Union (ITU)*** Regional Office where I was working as Network Administrator and technical support including network setup, software update , and security management officer .
- ***Ibda Software and Internet Company*** where I was the CIO of the company. The company was working on developing multimedia applications and other companies' websites.

### **Prizes and Awards:**

- Awarded the ***Certificate of Excellence*** by the college of Computer Science and Engineering for chairing and organizing the first International conference at the University of Hail, KSA.
- Awarded by the ***IEEE Computational Intelligence Society (CIS)*** the ***2011 IEEE CIS Outstanding Chapter Award*** for the IEEE CIS Egypt Chapter which I was the cofounder of the chapter and co-chaired in 2008-2010.
- ***Co-led the First place team in the RoboCup 2010*** which is an International Intelligent Robotics Competition, (Festo Logistics League), Singapore, June 2010.
- ***Co-led the Second place team in the RoboCup 2009*** which is an International Intelligent Robotics Competition, (Festo Hockey League), Graz, Austria, June 2009.
- Southern Methodist University ***Graduate Studies & Research Award*** as the best researcher of the year (2006), Southern Methodist University, USA.

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- Southern Methodist University *CSE IAB and Turner Construction company Award* for the best project (2005), USA.
- Southern Methodist University, School of Engineering *Outstanding Student Award*, (2006), USA.

### Research Statement:

*My research work focuses mainly in two fields* which are: Internet of Things (IoT) and Computational Intelligence.

*Most of my research in the field of IoT includes:* Mobile Computing, Wireless Sensor Networks (WSNs), and Network Energy Consumption.

*My work in the field of Computational Intelligence includes:* Ambient Intelligence, Smart Environment, Intelligent Environments Fuzzy Logic, Genetic Algorithms, Swarm Intelligence, Neural Networks, and Computational Intelligence Applications.

*I have published over 120 papers including top ranked journals and conferences* in the field of IoT, Wireless Sensor Networks, Ambient Intelligence, Smart Environments, Secure Networks, Networks Energy Consumption, Embedded Systems, Robotics and different applications of Computational Intelligence.

*I consistently was able to secure external and internal funds in sustainable manner* for my research as Principle Investigator (PI) and Co-Investigator (Co-PI) from different Funding agencies, Universities, and Industry *with a total amount of (\$25,742,859)*. These agencies include: Ministry of Education , Saudi Arabia ; Framework Programme 7 (EU) (FP7), ITEA 3; Intel company; Vodafone telecommunication Company, Egypt National Telecom Regularity Authority; Egypt

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Information and Communication Technology Outsourcing (ITIDA) ;Nahdet El Mahrousa ;Hail University ; Modern University for Technology and Information (MTI); and German University in Cairo (GUC).

*For knowledge transfer, I constantly sustain and excellent relationship with industry* for realistic problem-solving approaches as well as teaching up to date knowledge based on practical experience. For instance, I have excellent relationship with Vodafone, Smartec Company, Microsoft, CISCO, and Intel. **In addition, I was able to cooperate with CERN**, the largest physics organization in the world building a grid node at Egyptian Universities. Moreover, I am the software Manager and head of Artificial Intelligence research group at HighTec for communication research Center, Cairo University.

*I served different roles in many of the journals and conference* including IEEE World Congress on Computational Intelligence (IEEE WCCI) , ( Canada, 2016) , 7th International Conference on Ambient Systems, Networks and Technologies, ANT, ( Madrid, Spain, 2016) , 8th International Conference on Computational Intelligence and Communication Networks , CICN , (India, 2016), International Conference on Data Mining (DMIN2016), International Conference on Communication, Management and Information Technology ,ICCMIT, (Cosenza, Italy , 2016), International Conference on Computer Science and Artificial Intelligence, CSAI, ( China, 2016), Recent Advances in Computer Systems , RACS, (Saudi Arabia, 2016) , 1st National Computing Colleges Conference , NCCC, , Saudi Arabia, 2016) , International Conference on Cybersecurity (Saudi Arabia, 2019) ; International Conference on Advanced Computation and Telecommunication

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(ICACAT) (India, 2019), and I have served as committee member for many other conferences since 2006.

*For journals*, I also served different roles in the following journals: IEEE's Transactions on Parallel and Distributed Systems Journal, IEEE Transactions on Neural Networks and Learning Systems , International Journal of Memetic Computing, Springer , The Computer journal , oxfordjournals, International Journal of Intelligent Engineering Informatics, IGI, International Journal of System Dynamics Applications (IJSDA), inderscience, International Journal of Robotics and Automation., actapress , and International Journal of Sensor Networks (IJSNet), and Journal of King Abdulaziz University, Saudi Arabia, and many others.

### Research Achievements:

#### A. Current Funded Projects:

- **Big Data Handling: Hajj as Case Study**  
Funding Agency: Hail University  
Budget: (25,000 RS)  
Period: 2019-2020
  
- **Distributed deployment of WSNs**  
Funding Agency: Hail University  
Budget: (25,000 RS)  
Period: 2019-2020
  
- **Intelligent Cloud Scheduling**  
Funding Agency: Islamic University  
Budget: (25,000 RS)  
Period: 2019-2020

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### B. Completed Funded Projects:

#### - Europe Egypt Network for Particle Physics.

Funding Agency: FP7

Budget: (309,700 EUR)

Period: 2013-2016

Partners:

- i. Politecnico di Bari , Itali
- ii. Ecole Polytechnique , Leprince-Ringuet Laboratory (LLR), France
- iii. *Cairo University, Computer Engineering Dept. Egypt.*
- iv. Ain Shams University, Physics Department, Egypt
- v. Helwan University, Physics Department, Egypt

#### - Internet of Things and Disease Spreading Challenges

Funding Agency: Hail University

Budget: (25,000 RS)

Period: 2016-2017

#### - Studying the Impact of Using English Language in Security Measures for Non-English Users

Funding Agency: Hail University

Budget: (25,400 RS)

Period: 2015-2017

#### - 10028 Web of Objects

Funding Agency: ITEA 3

Budget: (12,459,000 €)

Period: 2012-2014

Partners:

Concordia University , Canada	InnoPiaTech, Republic of Korea	NMA Technologies, Egypt
CEA, France	Institut Mines- Télécom, France	Odonata, France
DEIMOS, Spain	KAIST, Republic of Korea	Prodevelop, Spain
ETIC, Spain	KT, Republic of Korea	<b>Smartec, Egypt – the company that I was participating</b>



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		<b>through.</b>
ETRI, Republic of Korea	Kwangwoon University, Republic of Korea	Sogeti High Tech, France
Hankuk University of Foreign Studies, Republic of Korea	Miksystem, Republic of Korea	Technical University of Madrid (UPM), Spain
Telespazio, Spain	University of Cairo, Egypt	Visual Tools, Spain
Thales, France	University Paris-Est Marne-la-Vallée, France	
University of Technology in Catalunya, Spain	Universidad Politécnica de Valencia, Spain	

<https://itea3.org/project/web-of-objects.html>

### - **Tool for Extensive Management and Performance Optimization (TEMPO) for 3G**

**Funding Agency:** National Telecom Regulatory Authority (NTRA) – ITIDA

**Budget:** (3 million L.E. (Egyptian Pound))

**Period:** first round 2012-2013 - second round 2013-2015

**Partner:** Vodafone Egypt telecommunication Company

### - **Grid Node for ALICE at CERN**

**Funding Agency:** MTI University, Cairo, Egypt

**Budget:** (100,000 L.E)

**Period:** 2010 -2012

**Partners:** Physics Department, MTI University

## C. Submitted Projects for Funding:

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### - Internet of Things and Smart Environments

**Funding Agency:** King Abdul Aziz City for Science and Technology

**Budget:** (1.9 million RS)

**Period:** 2019

### - Efficient Searching with Privacy in Universities Cloud Data

**Funding Agency:** King Abdul Aziz City for Science and Technology

**Budget:** (1.5 million RS)

**Period:** 2019

## D. Selected Conferences and Journals Organizing Activities

- Guest Editor at International Journal of Hybrid Intelligence, 2019, entitled “Artificial Intelligence Approaches - Interdisciplinary Emergent Technologies”
- Editor of the book entitled “Advanced Machine Learning Technologies and Applications,” Springer, 2012.
- Guest Editor for a special issue on “Thematic Issue on ‘Intelligent Cloud Computing,” Journal of Memetic Computing, May 2016.
- Guest Editor for a special issue on “Security in Wireless Sensor Networks – Countermeasures and Challenges”, Int. J. of Intelligent Engineering Informatics, December 2015.
- Guest Editor for a special issue on “Reliability and Fault Tolerant Strategies and Protocols in Wireless Sensors Network, “International Journal of System Dynamics Applications (IJSDA), April 2015.
- Member of the Editorial Board of the International Journal of Service Science, Management, Engineering, and Technology (IJSSMET).IGI.
- Member of the Editorial Board of the International Journal of System Dynamics Applications (IJSDA), IGI.
- Organizer of Special Session on “UZZ-IEEE 2016: Bio-inspired Fuzzy

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Logic Approaches - Interdisciplinary Emergent Technologies”, in conjunction with *IEEE WCCI 2016* conference, July 2016.

- Organizer of special session on “ Internet of Things and Smart Systems, “International Conference on Communication, Management and Information Technology (ICCMIT 2016), April 2016.
- Organizer of special session on “THPC-2016: Tasks on High Performance Computing ,” In conjunction with the 7th International Conference on Ambient Systems, Networks and Technologies (ANT-2016) , 2016
- Organizer of special session on “WNTEST: Wireless Networks and Energy Saving Techniques ,” In conjunction with the 7th International Conference on Ambient Systems, Networks and Technologies (ANT-2016) , 2016.
- Chair of Recent Advanced in Computer Systems, Hail, Saudi Arabia, December 2015.
- Member of the program committee of IEEE Symposium on Intelligent Agents, associate with IEEE Symposium Series on Computational Intelligence (SSCI 2013), April 2013.
- Program Co-Chairs of International Conference on Advanced Machine Learning Technologies and Applications (AMLTA12), December 2012.
- Organizer of Special Session on “Recent Advances on Sensor and Actor Networks, “International Conference on Engineering and Technology (ICET 2012), October 2012.
- Organizer of special session on “Wireless Sensor Networks and its Applications,” International conference on Intelligent Systems Design and Applications (ISDA), December 2010.

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- Organizer of Special Session on “Agents for Ad Hoc and Sensor Network Activities,” IEEE Symposium Series on Computational Intelligence, April 2009.

### **E. Selected Funding Agencies Referee Activities**

- Serving as a referee for the EU Research Council
- Serving as a referee for the USA National Science Foundation (NSF).
- Serving as a referee for the Egypt Information and Communication Technology Outsourcing (ITIDA)
- Serving as a referee for King Abdul Aziz City for Science and Technology.

### **F. Selected International Conferences Program Committee Membership Sample**

- Keynote speaker at the International Conference on Advanced Computation and Telecommunication (ICACAT), India , 2019 .
- Co-chair of the International Conference on Cybersecurity, Hail, 2019.
- Member of the 5<sup>th</sup> International Conference on Communication, Management and Information Technology, 2019.
- Member of the 10<sup>th</sup> International Conference on Ambient Systems, Networks and Technologies , Leuven, Belgium, 2019.
- Member of the International Programme committee for the International Conference on Data Mining, Nevada , USA, 2016
- Member of the International Programme committee for the International conference on Advancement on Informatics, Business and Management , Czech Republic , 2016

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- Member of the International Programme committee for International conference on Advanced Research on Circuits and Systems, Czech Republic, 2016.
- Member of the International Programme committee for International conference on Progress in Computer Sciences and Information Technology International Conference (PROCSIT), Kedah, Malaysia, 2016.
- Member of the International Programme committee for 8th International Conference on Computational Intelligence and Communication Networks (CICN 2016), dehradun, India 2016.
- Member of the International Programme committee for the 3rd International Workshop on Mobile Applications (MobiApps'2016), Vienna, Austria, 2016.
- Member of the International Programme committee for The 10th International Conference on Future Networks and Communications, FNC 2016 Montreal, Quebec, Canada, 2016.
- Member of the International Programme committee for the International Conference on Ambient Systems, Networks and Technologies (ANT-2016), Madrid, Spain, 2016.
- Member of the International Programme committee for The 10th International Conference on Future Networks and Communications, FNC 2015 Belfort, France, 2015.
- Member of the International Programme committee for the 2th ACS/IEEE International Conference on Computer Systems and Applications, AICCSA 2015, Marrakech, Morocco, 2015.
- Member of the International Programme committee for the International Joint Conference on Neural Networks (IJCNN),

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- Killarney, Ireland, 2015.
- Member of the International Programme committee for the International Conference on Ambient Systems, Networks and Technologies (ANT-2015), London, United Kingdom, 2015.
  - Member of the International Programme committee for the International Conference on Ambient Systems, Networks and Technologies (ANT-2014), Hasselt, Belgium, 2014.
  - Member of the International Programme committee for The 9th International Conference on Future Networks and Communications, FNC 2014, Niagara Falls, Ontario, Canada, 2014.
  - Member of the International Programme committee for the International Conference on Ambient Systems, Networks and Technologies (ANT-2013), Halifax, Nova Scotia, Canada, 2013.
  - Member of the International Programme committee for the International Conference on Emerging Technologies (ICET), Islamabad, Pakistan, 2012.
  - Member of the International Programme committee for the 37th IEEE Conference on Local Computer Networks (LCN), Clearwater, Florida, USA, 2012.
  - Member of the International Programme committee for the 9th IEEE International Conference on Control & Automation (IEEE ICCA'11), Santiago, Chile, 2011.
  - Member of the International Programme committee for the IEEE Symposium on Computers & Informatics (ISCI), Kuala Lumpur, Malaysia, 2011.
  - Member of the International Programme committee for the IEEE Symposium Series on Computational Intelligence - SSCI 2011, Paris,

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France, 2011.

- Member of the International Programme committee for The Third International Workshop on Advanced Computational Intelligence, IWACI2010, Suzhou, China, 2010 .
- Member of the International Programme committee for the 18th International Conference on Software, Telecommunications and Computer Networks , SoftCOM 2010, Split - Bol (island of Brac), 2010.
- Member of the International Programme committee for the Third International Workshop on Advanced Computational Intelligence (IWACI), Suzhou, China, 2010
- Member of the International Programme committee for International Conference on Autonomous and Intelligent Systems, AIS 2010, Povoade Varzim, Portugal, 2010
- Member of the International Programme committee for the International Joint Conference on Neural Networks (IJCNN), Barcelona, Spain, 2010.
- Member of the International Programme committee for the IEEE International Conference on Fuzzy Systems (FUZZ), Barcelona, Spain, 2010.
- Member of the International Programme committee for the 6th International Conference on Intelligent Environments (IE'10), Kuala Lumpur, Malaysia. 2010.
- Member of the International Programme committee for the 4th WSEAS International Conference on CIRCUITS, SYSTEMS, SIGNAL and TELECOMMUNICATIONS , 2010
- Member of the International Programme committee for the First KES

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- International Symposium on Intelligent Decision Technologies, IDT'09, Himeji, Japan , 2009.
- Member of the International Programme committee for the International Conference in Sensor Networks , SensorNets2009, Monastir, Tunisia, 2009.
  - Member of the International Programme committee for the 5th International Conference on Intelligent Environments (IE'09), ), Barcelona, Spain, 2009
  - Member of the International Programme committee for the Fourth International Multi-Conference on Computing in the Global Information Technology, ICCGI 2009, French Riviera, France, 2009
  - Member of the International Programme committee for the International Conference on Wireless Information Networks and Systems, WINSYS 2009, Milan Italy , 2009 .
  - Member of the International Programme committee for The 34th IEEE Conference on Local Computer Networks (LCN), Zürich, Switzerland, 2009
  - Member of the International Programme committee for the international Multi-Conference on Computing in the Global Information Technology, ICCGI 2006, Bucharest, Romania, 2006.

### **G. Research Infrastructure Development**

- **Robotic Research Lab, Hail University**

I am the founder of the Robotic research lab at the college of Computer Science and Engineering , Hail University, in 2019.



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The lab serves as a platform for Artificial Intelligence and Robotics research.

- **Internet of Things Lab, Cairo University**

I am the founder of Intel Internet of Things Lab at the faculty of Engineering. I was the Principle Investigator for a project submitted to Intel Company for an Internet of Things lab equipment's. The lab serves many of the courses such as embedded systems and Wireless Sensor Networks.

- **Applied Sensing Technology Research Laboratory (ApplS-LAB), Cairo University.**

I am a founder of the ApplS-LAB at Computer Engineering Department, Cairo University. The lab serves the research of Wireless Sensor Networks (WSNs).

- **Ambient Intelligent Center (AMIC) at German University in Cairo (GUC).**

I was a cofounder of Ambient Intelligent Center (AMIC) at German University in Cairo. AMIC is a research center that utilizes the Ambient Intelligent techniques and concepts in the field of smart environments. The center started by developing a unique testbed at GUC which is an intelligent classroom. The center opens many of the research ideas and offer masters and PhD programs for GUC students and others.

- **Robotics labs and the Robotics research group, German University in Cairo (GUC).**

I took a part of establishing the Robotics labs and the Robotics

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research group in the German University in Cairo. This lab was used for RoboCup Competition preparation in 2009 and 2010 as well as a base for Robotics research.

### **- Brain Computer Interface lab , Hail University.**

I am the founder of the Brain Computer Interface Lab at Hail University. The lab is a fruitful effort with the Fraunhofer institute cooperation during the year of 2015. It is expected to receive the lab equipment sometime before the end of 2016.

## **H. Students Supervision**

### **Previous Ph.D. and Masters Students:**

- Dr. Amira Abdul Mageed, currently working at Ain Shams University, Egypt.
- Ahmed Ezz Eldin, Ph.D. candidate, Florida University, USA.
- Fady Medhat , Ph.D. candidate , The University of York, England, United Kingdom.
- Shereen Mohamed , teaching Assistant at Al-Azhar university .
- Bassant El Samadony , Cairo University
- Eman ElShahed , Ain Shams university
- Sahar kamal, Alazhar University.
- Bassam Shosha , Arab Academy for Science ,Technology , Maritime Transport.
- Marwa Hassan, Ph.D. candidate, Cairo University.
- Mohamed Nabil, Arab Academy for Science, Technology, Maritime Transport.

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- Shamsan Mohamed, Cairo University.
- Ahmed Essamt , Cairo University .
- Mohamed Abdel-Aal , Helwan University .

### **Current Ph.D. Student Students:**

- Fatma H. El-Fouly , Monofia University, Egypt
- Mostafa Abo Amer, Ain Shams University

### **Current Masters Students**

- Karen Medhat, Cairo University.
- Amr Helal, Cairo University.
- Eman Sabry, Arab Academy for Science, Technology, and Maritime Transport.
- Alamir Labib, Cairo University.
- Ahmed Shawki, Cairo University.

### **External Examiner Duties:**

- King Abdul Azziz University, Saudi Arabia.
- Ain Shams University, Egypt
- Al-Azhar University, Egypt.
- German University in Cairo, Egypt.

## **I. Conference Keynote Speeches:**

- **Internet of Things Challenges and Opportunities**

THE INTERNATIONAL ENGINEERING CONFERENCE AT  
THE UNIVERSITY OF HAIL, 2018

- **Internet of Intelligent Things: How Intelligence Make the  
Internet of Things Meaningful**

International Conference on Advanced Computation and  
Telecommunication (ICACAT), India, 2018.

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### J. Publications

#### A. Submitted Papers

- Ahmed M. Dirie and **Rabie A. Ramadan**, “**Refactoring Infrastructure as Code Into Smaller Projects For Improved Automation,**” **submitted to Advances in Engineering Software, Elsevier , 2020**
- Marwa. S. Salem, Shimaa M. Ahmed and Rabie A. Ramadan, “**Bandwidth Broadening of Piezoelectric Energy Harvesters Using a Promising Proposed Array of Cantilever Structure,**” **submitted to Smart Materials and Structures journal , IOP Publisher, 2020.**
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- Harisu Abdullahi Shehu , Md. Haidar Sharif , And **Rabie A. Ramadan**, “**Distributed Mutual Exclusion Algorithms for Intersection Traffic Problems**”, **submitted to IEEE Access, 2020 .**
- Karen Medhat and **Rabie A. Ramadan**, “ **Learning based Intrusion Detection Mechanism in Wireless Sensor Communication Systems,**” **“submitted to Computers & Security, Elsevier 2020.**
- Bassam Aboushousha; Mohamed Dessouky; **Rabie A. Ramadan**; Ayman El-Sayed , "Compact-Data Encryption Standard (C-DES) Approach to Enhance the Security and Privacy in Smart City", **submitted to Journal of Ambient Intelligence and Humanized Computing, 2020.**
- Eissa Elrashisi and **Rabie A. Ramadan** ,”**Effectiveness of Image Descriptors in Recognizing Human Faces Supported by Distributed Platforms,**” **submitted to IEEE Transactions on Image Processing, 2019.**
- Fatma H. Elfouly, **Rabie A. Ramadan**, Mohamed I. Mahmoud, Moawad I. Dessouky, and Fathi. Abd El-Sami “**Optimal and Meta-Heuristic Algorithms for Object Tracking in Multi-Sink Wireless Sensor Networks,**” **submitted to the international Journal of Ambient Intelligence and Smart Environments, 2019.**
- **Rabie A. Ramadan**, Eissa Elrashidi , and MD haidar , “ **Energy Efficient Framework for Fog Network Based on Multisink Wireless Sensor Networks,**” **submitted to the International Conference on Computer and Information Sciences, ICCIS2020.**

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### - **Journal Papers**

- Fatma Elfouly and **Rabie A. Ramadan** “[Real-Time Energy-Efficient Reliable Traffic Aware Routing for Industrial Wireless Sensor Networks,](#)” IEEE Access, 2020.
- Habib Ullah , Ahmed B. Altamimi , **Rabie A. Ramadan** , “ [The Internet of Things for Crowd Panic Detection,](#) “ International Journal of Advanced Computer Science and Applications (IJACSA) , 2020.
- Shamsan M Qaashah, **Rabie A Ramadan**, Magda B Fayek, “[A priority multi-channel coordination MAC protocol in roadside unit-assisted vehicular networks,](#)” International Journal of Network Science, Inderscience , 2019
- Majed Mohaia Alhaisoni , **Rabie A. Ramadan** , Ahmed Y. Khedr, “[SCF: Smart Big Data Classification Framework,](#)” Indian Journal of Science & Technology, 2019
- Bassam Aboshsha, Mohamed Dessouky, **Rabie A. Ramadan**, Ayman EL-SAYED, “[LCA- Lightweight Cryptographic Algorithm for IoT Constraint Resources,](#)” Menoufia Journal of Electronic Engineering Research, 2019
- Bassam Aboshsha, Mohamed Dessouky, **Rabie A. Ramadan**, Ayman EL-SAYED, “ [Design and Analysis of Substitution Boxes in GOST Lightweight Security Algorithm,](#)” Menoufia Journal of Electronic Engineering Research, 2019
- Bassam Aboshsha, Mohamed Dessouky, Rabie A. Ramadan, Ayman EL-SAYED, “[Immunity of Lightweight DES Algorithm \(DESL\) Against Linear Cryptanalysis Attack,](#)” Menoufia Journal of Electronic Engineering Research, 2019
- Bassam W Aboshosha, Mohamed M Dessouky, **Rabie A Ramadan**, Ayman El-Sayed, Fatma H Galal, “[Enhanced Version of GOST Cryptosystem for Lightweight Applications,](#)” WAS Science Nature Journal, 2019 .
- Adel Alkhalil , **Rabie Ramadan** , and Aakash Ahmad, “ [Bio-inspired Think-and-Share Optimization for Big Data Provenance in Wireless Sensor Networks,](#) “ International Journal of Advanced Computer Science and Applications(IJACSA), Volume 10 Issue 6, 2019.

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- Ibrahim M. Alseadoon, Rabie A. Ramadan \*, Ahmed Y. Khedr, Badr M. Alshammari ,” **Secure vehicle tracking using RFID**, “ [International journal of ADVANCED AND APPLIED SCIENCES](#), 2019, <https://doi.org/10.21833/ijaas.2019.10.001>
- M. Haris Uddin Sharif , C. Maheshbhai Rana , Rasheed Syed , G. M. Kumar Tadepalli , H. N. V. S. M. Krishna Tungala , Banala Vijay , M. Haidar Sharif , **Rabie A Ramadan** , Adwan Alownie Alanazi , “**PHYSICAL SECURITY PRACTICES ON INTERNATIONAL BORDER MANAGEMENT**,” [Science International Journal](#), 2019
- Harisu Abdullahi Shehu1 , Md. Haidar Sharif2 , Rabie A. Ramadan2 , Adwan Alownie Alanazi , ” **SIDE CHANNEL ATTACKS TO RECOVER POWER TRACE USING DEEP LEARNING TECHNIQUE** , “ [Science International Journal](#), 2019.
- Fatma H El-Fouly, **Rabie A Ramadan**, Mohamed I Mahmoud, Moawad I Dessouky, “**Efficient REBTA data reporting algorithm for object tracking in wireless sensor networks**”, [International Journal of Communication Systems](#), 31(8) , 2018.
- Fatma Hanafy El-Fouly, **Rabie Abd Ramadan**, Mohamed I Mahmoud, Moawad I Dessouky, **REBTAM: Reliable energy balance traffic aware data reporting algorithm for object tracking in multi-sink wireless sensor networks**, [journal of Wireless Networks](#) , 24 (3), 2018.
- Sarah N Abdulkader Yosra N Abdula , S Abdel-Mageid , **RA Ramadan** , Afaf A Nada , Marwa A.Elshahed, “**An Intelligent Spelling Framework Based on Brain-Computer Interface**,” [Journal of Scientific Research in Science](#), 34 (1), 2018.
- Ahmed S. Abu Daia, **Rabie A. Ramadan** and Magda B. Fayek, “**Sensor Networks Attacks Classifications and Mitigation**”, [Annals of Emerging Technologies in Computing \(AETiC\)](#), 2018.
- Ibrahim Mohammed Alseadoon, **Rabie A Ramadan**, Ahmed Y Khedr, “**Cultural impact on Users’ Ability to protect themselves against Phishing websites**, “[IJCSNS](#), 17 (11), 2017.

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- Rabie A. Ramadan, “ **Big Data Tools-An Overview**”, [International Journal of Computer & Software Engineering](#), 2(125), 2017
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- **Rabie A. Ramadan**, Mohamed Zaki, and Samir Shaheen, **“Hypertext Semantic Search Based Dexter Model on Distributed Heterogeneous Systems,”** 4th International Computer Engineering Conference Information Society Applications in the Next Decade (ICENCO), December, 29-30, 2008.
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- **Rabie A. Ramadan** and El-Rewini Hesham, **“Deployment of Sensor Networks on Critical Infrastructures: A Survey,”** 4th International Computer Engineering Conference Information Society Applications in the Next Decade (ICENCO), December, 29-30, 2008.
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### C. Books and Book Chapters:

- Fatma H. Elfouly and **Rabie A Ramadan** ” **Efficient Data Reporting in a Multi-Object Tracking Using WSNs** “ (pages 638-658), Robotic Systems: Concepts, Methodologies, Tools, and Applications, IGI Publisher, 2020.
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- Karen Medhat, **Rabie A. Ramadan**, and Ihab Talkhan , **“Security in Mission Critical Communication Systems: Approach for Intrusion Detection, “** book chapter submitted to; "Multimedia Services and Applications in Mission Critical Communication Systems " , <http://www.igi-global.com/publish/call-for-papers/call-details/1889> , 2016.
- Mohamed Mostafa M. Fouad , Nashwa El-Bendary, **Rabie A. Ramadan**, and Aboul Ella Hassanien , **Wireless Sensor Networks: A Medical Perspective;** , Book Chapter at Wireless Sensor Networks: From Theory to Applications book , CRC Press, 2013.

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- Nashwa El-Bendary, Mohamed Mostafa M. Fouad, **Rabie A. Ramadan**, Soumya Banerjee , and Aboul Ella Hassanien, **Smart Environmental Monitoring Using Wireless Sensor Networks**, Book Chapter at [Wireless Sensor Networks: From Theory to Applications](#) book , CRC Press, 2013.
- **Rabie A. Ramadan**, **“Odor Recognition and Localization Using Sensor Networks ,”** book chapter in “Wireless Sensor Networks: Application-Centric Design” InTech, December 2010, ISBN 978-953-307-321-7

### Teaching Profile:

During my career journey, *I have strong record of high quality of teaching*. I taught many undergraduate and graduate courses. In addition to teaching course, I developed two course modules. The first module was for undergraduate which is embedded systems and the second was for the post graduate which is the Wireless Sensor Networks course. In both courses as well as in other courses that I teach, I develop practical modules based on the state of the art of the topic.

Due to the connection with industry, *I am able to secure many internships and funded graduation projects for my students*. In fact, most of my students’ graduation projects are based on real industry problems. Most of these project problems are already proposed by the industry.

*Based on my experience as a developer using different languages (C, C++, Java, and C#)* at Banc of America Securities and Ibda Companies, I used to teach many programming language courses including “Introduction to programming” and Advanced Programming Techniques”. The first course teaches students the basics of the

## **Curriculum Vitae of Rabie A. Ramadan, Ph.D.**

programming languages and the second is an advanced course where memory management and code optimization is the main concern.

In addition to teaching courses, I am the Computer Engineering coordinator of the laboratories committee at Faculty of Engineering, Cairo University. Also, *I am part of the Computer Engineering development program* at Hail University. In addition, I play a major role in the new Information Security Program development at Hail University. Moreover, I am a part of the students exchange program with Fraunhofer institute, German.

This teaching experience formed my teaching philosophy. My philosophy is to foster the environment with:

- 1- Long life learning
- 2- Students and teachers accountability
- 3- Teaching is not one time process
- 4- Study is not disconnected from real world
- 5- Confidence since nothing is impossible

Since I love teaching and dealing with students, I do have the enthusiasm to teach traditional courses as well as develop new courses. I believe that regardless the course materials is simple or hard, the teacher has the greatest impact on students to love or hate the course materials. Therefore, I give myself enough time before the class time to get ready and equipped with different methodologies to convey the class message. I usually use different techniques to convey the lecture message to students. During the class time, for me it is the enjoyable moments answering the questions and diving through students minds with the new subjects.

Teaching is my career that I choose for life and I believe it fits my skills and capabilities. So, for long term plan, my target is to develop my teaching

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capabilities and knowledge awareness through readings, cooperating with industry, cooperating with colleagues with the same interest, attending and organizing conferences, leading journals special issues, and by experimenting real life problems. For the short term plan, *I am planning to develop a new course in the field of “Smart Internet of Things” along with its textbook.*

### **A. Courses I Taught:**

The following is my teaching record at different Universities and institutes:

- **Southern Methodist University , SMU, USA**
  - Advanced Computer Architecture and Parallel Processing
- **Computer Engineering Department, Cairo University**
  - Introduction to programming
  - Advanced Programming Techniques
  - Data Structures
  - Embedded Systems
  - Digital Logic
  - Introduction to Database
  - Algorithms
  - Introduction to Wireless Sensor Networks – post graduate course
- **College of Computer Science and Engineering, Hail University**
  - Internet of Everything
  - IT Essential
  - Operating Systems
  - Fundamentals of Computer Engineering – Digital Logic

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- Computer Architecture
- Hardware Simulation Language (VHDL)
- System Design Lab – Embedded Systems
- Blackboard Learn
- Security Fundamentals
- Advanced Database
- **Media and Information Technology Department , German University in Cairo (GUC)**
  - Computer Organization
  - Information Security
  - Introduction to Wireless Sensor Networks
- **Systems and Computers Department , Alazhar University**
  - Introduction to Programming
  - Data Structures and Algorithms
  - Microprocessor
- **Al-Shrouk Academy**
  - Introduction to Programming
  - Advanced Level Programming
  - Computer Organization
  - Computer and Network Security
- **Community Services**
  - Mobile and Social Networks Safe Usage
  - Blackboard learn
  - Communication Skills
  - Presentation Skills
  - Personal patterns

### **B. Soft Skills Courses that I completed:**

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- Crises Management
- Statistical Analysis (SPSS)
- Time and Meetings Management
- Quality Assurance in Educational Systems
- Leadership skills
- Effective Communication Skills
- Scientific Conferences Management
- Exams and Students Evaluation Systems
- Higher Education Teaching Strategies
- Work Ethics
- Critical Thinking
- Problem Solving Strategies
- Presentation Skills

### **Administrative Activities:**

- *Head of the research unit at College of Computer Science and Engineering, Hail University.*
- *Coordinator for ASIIN International Accreditation, College of Computer Science and Engineering, Hail University.*
- *Member of a New Security Program Committee, Hail University*
- *Research Seminar Coordinator, Hail University*
- *Chair of RACS-2015 Conference , Hail University*
- *Member of the Stalled Students Committee, Hail University*
- *Member of the Department Council, Hail University*
- *Member of the College Council, Hail University*
- *Member of the Computer Science accreditation program Committee, Hail University*

## Curriculum Vitae of Rabie A. Ramadan, Ph.D.

- *Member of the Computer Engineering development Program Committee , Hail University*
- *Chair of the Students activities Committee , Hail University*
- *Member of the Student Programming Competitions Committee- to participate in the Deans of Computer Science and Engineering competition, , Hail University*
- *Member of Research Committee for Deans of Computer Science and Engineering Conference, Hail University.*
- *Member of the Industrial partnership Committee , Hail University*
- *Member of the Universities Partnership Committee, Hail University.*
- *Member of students' Academic consultation Committee, Hail University.*
- *Member of the Academic Research Committee, Hail University.*
- *Member of the Electronic Education Committee, Hail University.*
- *Coordinator of the Laboratory committee, Cairo University.*
- *Member of the Exams Committee, Cairo University.*
- *Member of Quality Assurance Committee, Cairo University.*

### Coaching Activities:

- **ThinkQuest 2000**, “Quantum Mechanics made simple”, at: <http://library.thinkquest.org/C005775/> or at: [http://www.thinkquest.org/library/site.html?team\\_id=C005775](http://www.thinkquest.org/library/site.html?team_id=C005775)
- **ThinkQuest 2001**, “Satcom Online”, at : <http://library.thinkquest.org/C0122480/> or at: [http://www.thinkquest.org/library/site.html?team\\_id=C0122480](http://www.thinkquest.org/library/site.html?team_id=C0122480)
- **ThinkQuest 2006** , “Eau de Abnormality” at : [http://www.thinkquest.org/library/site.html?team\\_id=05aug/01894](http://www.thinkquest.org/library/site.html?team_id=05aug/01894) or at: <http://library.thinkquest.org/05aug/01894/>

### References

## **Curriculum Vitae of Rabie A. Ramadan, Ph.D.**

Given Upon Request