# RÉSUMÉ for ANAS HAMDI ABU TALEB Doctoral degree in Computer Science

# PERSONAL DATA

Name	: Anas Hamdi Abu Taleb
Nationality	: Jordanian
Gender	: Male
Date of Birth	: July, 13 <sup>th</sup> , 1982
Place of Birth	: As-Salt, Jordan
Marital Status	: Married
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### LANGUAGE

Arabic: Native language. English: Fluent reading, writing, and conversation.

## **OBJECTIVE**

To attain a position in the field of Computer Science in a reputable firm where a sense of responsibility is required, and within which I would be able to utilize my knowledge and skills.

## **EDUCATIONAL BACKGROUND**

#### **University of Bristol**

Woodland Road Bristol BS8 1UB, United Kingdom PhD Computer Science, July 2010

### University of the West of England

Frenchay, Coldharbour lane Bristol BS16 1QY, United Kingdom MSc Computer Science (with Merit), February 2007

### Princess Sumaya University for Technology

Amman, Jordan Faculty of Computer Science Bachelors Degree, June 2004 Major: Computer Science

### **Research Interests:**

Wrote several researches addressing computer science and techniques. All the researches were conducted under the supervision of the university teachers. And the tutors always evaluated the results reached with valuable discussions done with the whole class, which added value and depth to the whole projects. During my BSc, I worked on developing java based applications. Additionally, I am interested in developing various web applications in order to make different services available for clients on the spot such as online banking and stocks exchange systems. All of these projects were supervised and assessed by tutors at the universities were I studied. Also, I have attended courses about operating systems, data base systems, advanced data based systems and distributed systems as a requirement of the degrees I hold. The researches that were accomplished included:

- Fault Tolerance
- Sensor Networks
- Ad hoc Networks
- Communications

## **Publications:**

- Anas AbuTaleb, "Breadth First Based Sink Mobility Model for Wireless Sensor Networks", Journal of Theoretical and Applied Information Technology, Vol. 97, No. 8, pp. 2217-2228, April 2019.
- Anas Abu Taleb," A Comparative Study of Mobility Models for Wireless Sensor Networks", Journal of Computer Science, Vol. 14, No. 10, pp 1279-1292, Oct. 2018, DOI: 10.3844/jcssp.2018.1279.1292.
- Anas Anu Taleb," VANET Routing Protocols and Architectures: An Overview." Journal of Computer Science, Vol. 14, no. 3, pp 423-434, March 2018, DOI: 10.3844/jcssp.2018.423.434
- Alhmiedat, Tareq Ali, Firas Omar, **Anas Abu Taleb**, and Ahmad Alsswey. "Road Safety and Energy Saving Proposed System: A Zigbee WSN Approach." International Journal of Online Engineering (iJOE) Vol.11, no. 2, pp-55-59, 2015.
- Hamad, Fadi; Zraqou, Jamal; Maaita, Adi; Abu Taleb, Anas, "A Secure Authentication System for ePassport Detection and Verification," in Intelligence and Security Informatics Conference (EISIC), 2015 European, pp.173-176, 7-9 Sept. 2015, doi: 10.1109/EISIC.2015.21
- Anas Abu Taleb, Tareq Alhmiedat, "Depth First Based Sink Mobility Model for Wireless Sensor Networks", International Journal of Electrical, Electronics and Computer Systems (IJEECS), Vol. 19, no. 2, 2014
- Tareq Alhmiedat, Firas Omar and **Anas Abu Taleb**, "*A Hybrid Tracking System for ZigBee WSNs*", The 6th International Conference of Computer Science & Information Technology (CSIT'14), Amman, Jordan, March 26-27, 2014.
- Osama Mohammad Al-Haj Hassan , Lakshmish Ramaswamy , Fadi Hamad & Anas Abu Taleb, Enterprise Information Systems, "Cooperative distributed architecture for mashups", Enterprise Information Systems, Vol 8, no. 3, pp. 406-444, May 2014.
- Alhmiedat, T, Abu Taleb, A, and Samara, G. "A Prototype Navigation System for Guiding Blind People Indoors using NXT Mindstorms", *International Journal of Online Engineering*, Vol. 9, No. 5, 2013.
- Anas Abu Taleb, Tareq Alhmiedat, Osama Ah-Haj Hassan and Nidal M. Turab, "A Survey of Sink Mobility Models for Wireless Sensor Networks". Journal of Emerging Trends in Computing and Information Sciences, Vol. 4, No. 9, September 2013.

- Nidal M. Turab, **Anas Abu Taleb** and Shadi R. Masadeh, "Cloud Computing Challenges and Solutions", International Journal of Computer Networks and Communications, Vol. 5, No. 5, September 2013.
- Osama Al-Hj Hassan, Ashraf Odeh and **Anas Abu Taleb**, "MashChord: A Structured Peer-to-Peer Architecture for Mashups based on chord". International Conference on Computer Science and Applications (ICCSA'13), Proceedings of the World Congress on Engineering and Computer Science San Francisco, USA, 23-25 Oct. 2013.
- Osama Al-Haj Hassan, Thamer Al-Rousan, Anas Abu Taleb and Adi Maaita, "An Effcient and Scalable Ranking Technique for Mashups Involving RSS Data Sources". Journal of Network and Computer Applications vol. 39 pp. 179-190, March 2014.
- Tareq Alhmiedat, Amer O. Abu Salem and **Anas Abu Taleb**, "An Improved Decentralized Approach for Tracking Multiple Mobile Targets through ZigBee WSNs". International Journal of Wireless and Mobile Networks, Vol. 5, No. 3, June 2013.
- Anas Abu Taleb, Tareq Alhmiedat, Reem Abu Taleb and Osama Al-Haj Hassan, "Sink Mobility Model for Wireless Sensor Networks", The Arabian Journal for Science and Engineering, Vol 39, no. 3, pp. 1775-1784, March 2014.
- Tareq Alhmiedat, **Anas Abu Taleb** and Mohammad Bsoul. Article: "A Study on Threats Detection and Tracking Systems for Military Applications using WSNs". International Journal of Computer Applications 40(15):12-18, February 2012.
- Anas Abu Taleb, J. Mathew and D. K. Pradhan, "*Efficient Fault Tolerant De Bruijn Based Design Approach for Sensor Networks*", 4<sup>th</sup> International Conference on Sensor Technologies and Applications, 2010. SENSORCOMM '10, Italy, July 2010.
- Anas Abu Taleb, J. Mathew and D. K. Pradhan, "Clustered De Bruijn Multi Layered Architectures for Sensor Networks," The second International conference on Wireless and Mobile Networks, Turkey 2010.
- Anas Abu Taleb, J. Mathew and D. K. Pradhan, "*Fault Diagnosis in Multi Layered De Bruijn Based Architectures for Sensor Networks*", 6<sup>th</sup> IEEE Int Workshop on Sensor Networks and Systems for Pervasive computing (*PerSeNs 2010*) 2010.
- Anas Abu Taleb, J. Mathew, D. K. Pradhan and T. Kocak, "A Novel Fault Diagnosis Technique in Wireless Sensor Networks", The International Journal On Advances in Networks and Services, February 2010.
- Anas Abu Taleb, D.K. Pradhan and T. Kocak, "A Technique to Identify and Substitute Faulty Nodes in Wireless Sensor Networks", Third International Conference on Sensor Technologies and Applications, SENSORCOMM '09, pp.346-351, 18-23 June 2009.
- Jimson Mathew, Jawar Singh, **Anas Abu Taleb**, Dhiraj K. Pradhan, "Fault Tolerant Reversible Finite Field Arithmetic Circuits," IOLTS, 14th IEEE International On-Line Testing Symposium, pp.188-189, 2008.

 الحاسوب و البرمجيات الجاهزة د. أيمن جميل النسور, د. محمد علي الجنيني, د. أنس أبو طالب, الطبعة الأولى, 2011 دار وائل للنشر.

# • Fault Tolerant Topologies and Routing Algorithms for Efficient Sensor Networks Design.

A project enrolled in for purpose of attaining PhD degree in computer science. The main focus of the research and the project is to increase the level of fault tolerance in sensor networks. As a result different topologies, routing algorithms and fault detection algorithms were proposed and implemented. After that the performance of sensor networks that employ the algorithms and the topologies was studied through simulation. The performance was studied according to different scenarios and conditions where in some cases the networks is fault free while in others faults were injected into the network to study the network's performance under faulty conditions and to study the ability of the algorithms to detect and deal with faults.

### • Ad hoc Wireless Networks Routing protocols.

A project enrolled in for purpose of attaining MSc degree. It is based on simulating four protocols for routing in ad hoc wireless networks. After that, measure and compare their performance based on the throughput of each one of them, while changing the mobility and density levels for nodes by using different sizes of networks and flat spaces and different pause times. In this project or dissertation, the NS-2 simulator was used to conduct the experiment.

### Stocks Exchange System

A project based on ASP.NET programming language, offering help to execute selling and buying transactions by brokers. Area of concentration was helping customers and brokers to communicate with each other, to deal with stocks more efficiently, offering statistical information about companies and prices, and facilitating the process of publishing the Daily Report which gives brokers information about daily transactions.

### Awards

• Best Paper Award for the paper titled "A Technique to Identify and Substitute Faulty Nodes in Wireless Sensor Networks" Third International Conference on Sensor Technologies and Applications, SENSORCOMM '09, pp.346-351, 18-23 June 2009.

### WORK EXPERIENCE

- 4/3/2016-Present King Hussein School of Computing Sciences, Princess Sumaya University for Technology, Associate Professor.
- 18/9/2016-3/3/2020 King Hussein School of Computing Sciences, Princess Sumaya University for Technology, Assistant Professor.
- 1/10/2015- Present Head of Computer Science Department.
- 1/10/2015-Present Head of Computer Networks Systems Department.
- 11/11/2014 Present Faculty of Information Technology, <u>Al-Isra Private University</u>, Associate Professor.
- 3/10/2010- 10/11/2014 Faculty of Information Technology, <u>Al-Isra Private University</u>, Assistant Professor.
- Trained for a month, from August 25 till September 25, 2003 in Al Thuraya Digital Technologies in Amman, Jordan as part of University requirements.

## Taught Courses

1. Computer Networks.

- 2. Data Structures in Java.
- 3. Wireless Networks.
- 4. Database (2).
- 5. Advanced Computer Networks.
- 6. Programming Fundamentals in Java.

## WORKSHOPS and TRAININGS

- Attended a course, titled Fundamentals of the Java programming Language SL-110. Under the supervision
  of Sun Microsystems. The course extended from Tan 26,2003 till Feb20, 2003.
- Attended an instructional course titled JAVA Programming (SL-275), from June 15,2003 till July 5, 2003.
- Successfully passed a 20 hours course titled Programming in Visual Basic 6, conducted by IEEE, from May 2,2002 till June 13,2002.
- Successfully completed the Microsoft Approved Course: 2559-Introduction to Visual Basic .NET, from Sep 6-11, 2003
- Successfully completed the Microsoft Approved Course: 2389-Programming with Microsoft ADO.NET, from Sep 14-17, 2003.
- Successfully completed the Microsoft Approved Course: Programming with Microsoft ASP.NET, from Sep 20-25, 2003.

## **REFERENCES**

 Dhiraj Pradhan Professor Department of Computer Science Faculty of Engineering University of Bristol Bristol, BS8 1UB, UK E-mail: pradhan@cs.bris.ac.uk

## • Dr. Jimson Mathew

Research Fellow Department of Computer Science University of Bristol Merchant Venturers Building Woodland Rd. Bristol BS8 1UB UK Tel: +44 117 331 5112 Fax: +44 117 954 5208 E-mail: jimson@cs.bris.ac.uk

## PERSONAL INTERESTS and SKILLS

- Self confident and well managed.
- Strong sense of team work
- Self motivated and energetic

- An articulate & effective communicator.
- Working well under pressure
- Competent knowledge of SQL through University Education.