Basheer Al-Duwairi

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Education

05/2002 – 05/2005	**PhD. Computer Engineering**, Iowa State University, Ames, IA, USA, Dissertation: Mitigation and Traceback Countermeasures for DDoS Attacks. Advisors: Manimaran Govindarasu & Thomas E. Daniels **(Research Excellence Award)**
08/2000 – 05/2002	**MS. Computer Engineering**, Iowa State University, Ames, IA, USA. Thesis: Combined Scheduling of Hard and Soft Real-Time Tasks in Multiprocessor Systems, Advisor: Manimaran Govindarasu
09/1994 –06/1999	**BSc. Electrical & Computer Engineering**, Jordan University of Science & Technology, Jordan

Academic Experience

10/2012 - present	**Associate Professor**, Department of Network Engineering & Security, Jordan University of Science & Technology
09/2009 – 10/2012	**Assistant Professor**, Department of Network Engineering & Security, Jordan University of Science & Technology
09/2005 – 09/2009	**Assistant Professor**, Department of Computer Engineering, Jordan University of Science & Technology
09/2008 – 12/2011	**Adjunct Professor**, New York Institute of Technology, Amman Campus, Jordan
06/2012 – 8/2012	**DFG Visiting Professor**, Technical University of Berlin, Berlin, Germany

Administrative and Technical Experience

09/2013 - present	**Chairman**, Department of Network Engineering & Security, Jordan University of Science & Technology

06/2010-09/2011	**Director** of Computer and Information Center/ JUST
09/2009 - 06/2010	Vice Dean, Faculty of Computer and Information Technology/ JUST
09/2008 – 09/2009	**Chairman**, Department of Computer Engineering, Jordan University of Science & Technology
09/2006 – 09/2008	**Assistant Dean**, Deanship of Student Affairs, Jordan University of Science & Technology

Journal Publications

2014	**Basheer Al-Duwairi** and Ahmad Al-Hammouri, "Fast Flux Watch: A Mechanism for Online Detection of Fast Flux Netwoks", Jpurnal of Advanced Research, Vol. 5, No. 4 (2014), pp 473–479**.**
	Zakaria Al-Qudah, **Basheer Al-Duwairi**, and Osama Al-Khaleel, "DDoS Protection as a Service: Hiding Behind the Giants", International Journal of Computational Science and Engineering, Vol.9, No.4 (2014), pp.292 – 300**.**
2013	**Basheer Al-Duwairi**, Zakaria Al-Qudah, and Manimaran Govindarasu,"A Novel Scheme for Mitigating Botnet-Based DDoS Attacks", Journal of Networks, Vol 8, No. 2 (2013) pp (297-306).
2012	**Basheer Al-Duwairi**, Ismail Khater, and Omar Al-Jarrah, "Detecting Image Spam Using Texture Features", International Journal for Information Security Research (IJISR), Volume 2, Issues 3/4, September/December 2012, pp 344-353.
	Basheer Al-Duwairi, Mohammad Marei, Malek Ireksossi, and Belal Rehani, "ConTest: A GUI-Based Tool toManage Internet-Scale Experiments over PlanetLab", In Proc. JETWI - Journal of Emerging Technologies in Web Intelligence. Vol 4, No 2 (2012), 164-171.
2010	**Basheer Al-Duwairi** and Abdul-Raheem Mustafa, "Request diversion: a novel mechanism to counter P2P-based DDoS attacks", In Proc. Int. J. Internet Protocol Technology. Vol. 5, Nos. 1/2, 2010. Pages: 55-64.
2006	**Basheer Al-Duwairi** and G. Manimaran, "Novel Hybrid Schemes Employing Packet Marking and Packet Logging for IP Traceback,". In Proc. of IEEE Transactions on Parallel and Distributed Systems (IEEE TPDS), Volume 17 , Issue 5, May 2006, Pages: 403 - 418.

Basheer Al-Duwairi and G.Manimaran, "Distributed Packet Pairing for Reflector Based DDoS Attack Mitigation," In Proc. Of Computer Communications Journal. Volume 29, Issue 12, 4 August 2006, Pages 2269-2280.

Articles in Refereed Symposia, Conferences, and Workshops

2012 Omar Al-Jarrah, Ismail Khater, and **Basheer Al-Duwairi**, "Identifying Potentially useful header features for email spam filtering". In Proc. of the Sixth International Conference on Digital Society (ICDS 2012), Valencia, Spain, Feb. 2012.

2011 **Basheer Al-Duwairi**, Ismail Khater, and Omar Al-Jarrah, "Texture Analysis Based Image Spam Filtering". In Proc. the 6th International Conference for Internet Technology and Secured Transactions (ICITST-2011), Abu Dhabi, Dec. 2011.

2010 **Basheer Al-Duwairi** and Lina Al-Ibbini, "BotDigger: Autonomous and Intelligent Botnet Detector". In Proc. of the 5th International Conference for Internet Monitoring and Protection (ICIMP 2010), Barcelona, Spain.

2009 **Basheer Al-Duwairi** and G. Manimaran, "JUST-Google: A search engine based defense against botnet-based DDoS attacks,". In Proc. IEEE ICC 2009, Dersden, Germany.

2005 **Basheer Al-Duwairi** and G.Manimaran, "Victim-AssistedMitigation Technique for TCP-Based Reflector DDoS Attacks," In Proc. of IFIP Networking May 2005, Waterloo, Ontario, Canada.

Basheer Al-Duwairi and G.Manimaran, "Intentional Dropping: A Novel Scheme for SYN flooding Mitigation," In Proc. of 8th IEEE Global Internet Symposium/Infocom March 2005, Miami, FL, USA.

2004 **Basheer Al-Duwairi** and Tom E. Daniels, "Topology Based Packet Marking," In Proc. of IEEE International Conference on Computer Communications and Networks (ICCCN 2004), Chicago, IL, USA.

Basheer Al-Duwairi and G. Manimaran, "A Novel Packet Marking Scheme for IP Traceback," In Proc. of IEEE International Conference on Parallel and Distributed Systems (ICPADS 2004), Newport Beach, California, USA.

Basheer Al-Duwairi, A. Chakrabarti, and G. Manimaran, "An Efficient Packet Marking Scheme for IP Traceback," In Proc. of Networking 2004, Athens, Greece.

2003 **Basheer Al-Duwairi** and G. Manimaran, "Combined Scheduling of Hard and Soft Real-Time Tasks in Multiprocessor Systems," In Proc. of International conference on High Performance Computing (HiPC 2003), Hyderabad, India.

Articles in Non-Refereed Conferences

2013 Basheer Al-Duwairi, Natheer Khasawneh, Hanaa Theiabat and Mohammad Fraiwan, "A Prototype of a Centralized Smartphone Botnet for Private Information Collection," Secure Abu Dhabi (SAD 2013)

Research Impact

Google scholar
As of 06/2015

Citation indices	All	Since 2010
Citations	237	157
h-index	7	7
i10-index	6	4

Research Awards

2012 Basheer Al-Duwairi (PI), Natheer Khasawneh, Mohammad Fraiwan, Characterization and detection of SMS commanded and controlled mobile botnets. Deanship of Research, Jordan University of Science & Technology, 2012.

2011 Basheer Al-Duwairi, SOA-Based Implementation of JUST Enterprise System in the Cloud , IBM Faculty Award, 2011.

Basheer Al-Duwairi (PI),Monther Al-Dwairi, Ahmad Al-Hammouri, Characterization and detection of fast flux Networks, Deanship of Research, Jordan University of Science & Technology, 2011.

Travel Awards

2013 NSF US-Egypt Workshop on Cyber Security, Cairo-Egypt May 2013.

2012 NSF United-States/Middle-East Workshop On Trustworthiness in

Emerging Distributed Systems and Networks, Istanbul-Turkey, June 2012.

2004 ACM Sigcomm 2004 student travel grant, Portland, Oregon, USA. Oct. 2004.

USENIX Security 2004 student travel grant, San Diego, CA, USA. 2004.

Student Awards

- Research Excellence Award May 2005
- Second Place Award for Computing Research in the Student Poster Competition, International Symposium on Modern Computing 2003, Ames, IA, USA.
- Full scholarship from JUST to pursue the M.S. & Ph.D. degrees in Computer Engineering in the USA. 2000 to 2005
- Listed several times on the Collage of Engineering Deans honor list at JUST 1994 to 1999

Tutorials

Toturial Speaker

- "Understanding the threat of Botnets", Half-day tutorial, presented at the 5th International Conference for Internet Monitoring and Protection (ICIMP 2010), Barcelona, Spain.
- "Understanding the threat of Botnets", Half-day tutorial, The International Conference on Information and Communications Systems (ICICS2009), Amman, Jordan.

Toutorial Co-Speaker

- "Internet Infrastructure Security", Half-day tutorial, IEEE Hot Interconnects 2005, Stanford University, USA. (Co-speacker: Dr. G.Manimaran, Iowa State University).

Teaching and advising

Courses Tought

- NES 451 (Basics of Information System Security), Fall 2012, Spring 2013
- NES 413(Computer Networks Lab), Fall 2012, Spring 2013
- NES 312 (Fundamentals of Computer Networks), Spring 2012, Spring 2013
- NES 202 (Introduction to UNIX), Fall 2011, Spring 2012
- CPE 776 (Cryptography and Network Security), Spring 2011.
- MGMT 755*- (Security Risk Analysis), Spring 2010.
- INCS 615* (Network Security and Perimeter Protection), Summer 2008, Fall 2011.
- CSCI 635* (Probability and Stochastic Processes), Spring 2009.
- CPE 779 (Special Topics: Advanced Topics in Network

Security), Spring 2009

- CPE 442 (Computer Networks), Fall 2008, Spring 2009, Fall 2009.
- CPE 542 (Network Security & Management), Spring 2006, Summer 2006, Fall 2006, Spring 2007, Summer 2007, Fall 2007.
- CPE 341 (Applied Probability and Queuing Theory), Fall 2005, Spring 2006, Fall 2006, Spring 2007, Fall 2007, Spring 2008, Fall 2011.
- CPE 254 (Digital Logic Design and Computer Architecture). Fall 2005.
- CPE 255 (Digital Logic Design Lab). Spring 2006, Spring 2008.
- CS 101 (Introduction to C++), Spring 2011.

Master thesis supervised

- Abdul-Raheem Mustafa, "Countering P2P-Based Distributed Denial of Service Attacks". May 2008.
- Ismail Khater, "Hierarchical email spam Filtering". (Co-advised with Dr. Omar Al-Jarrah). August 2011.

Selected senior design projects supervised

- Dana Bataineh and maram Rawashdeh, "Implementation of Mobile Elearning System", Spring 2013.
- We'am Rababa'h and Duaa Mata, "JUST iReport: Cloud-based mobile phone application to report issues related to JUST campus", Fall2012.
- Mohammad Marei, Malik Eriqsusi, Belal Rihani, "ConTest: A Visual Manager for Planetlab Experiments", Spring 2011.
- Duaa Gogazeh,Mona Saleh, Marina Al-Naber, "Bluetooth-Based PatientMonitoring System". Spring 2011.
- Bashar Al-Shboul and Shady Al-Zoubi, "Bluetooth-Based Announcement System". Spring 2010.
- Sahar Jaddoa, Ola Abu-Rjei, Amani Bawaneh, "Web-Based Room Occupancy Estimator". Spring 2010.
- Ghadeer Al-Enzi, Inas Oudat,Worrod Owesat, "Mitigation Tool for SYN Flodding Attacks". Spring 2008.
- Youssef Mantash and Humam Abushaaban, "Implementation of Anomoly Based Web Phishing Page Detection Tool". Spring 2008.
- Fidda Al-Kharabsheh and Gharam Al-Afeef, "Intrusion Detection Tool". Spring 2007.
- Shadi Alawneh and Mohammad Khalili, "Web-Based Course Assignment Tool". Spring 2007.
- Ruba Al-Absi and Diana Al-Oglah, "Selective Encryption of Compressed and Uncompressed Images". Fall 2006.

Professional Services

Program Committee Chair	• The Second International Conference on Information and Communication Systems (iCICS 2011), Irbid, Jordan. • First International Conference on Digital Communications and Computer Applications (DCCA 2007), Irbid, Jordan /Reviewing chair.
Program Committee member	• The Third International Conference on Information and Communication Systems (iCICS 2012), Irbid, Jordan. • The Fourth International Conference on Information and Communication Systems (iCICS 2013), Irbid, Jordan. • International Conference on Computing, Networking and Communications (ICNC 2013), San Diego, USA. • International Conference on Computer Communication Networks (ICCCN 2012), Munich, Germany. • IEEE International Conference on Broadband Communications, Networks, and Systems (BROADNETS 2007), North Carolina, USA.
Steering Committee member	International Conference on Information and Communication Systems (iCICS)
Peer Review	IEEE Transactions on Parallel and Distributed Systems, Information Security Journal: A Global Perspective, Wiley Journal of Security and Communication Networks, Conferences, ICCCN 2012, ICC 2007, ITNG 2007.
Departmental and University Committees at JUST	• Establishment of Center of Excellence in Service Innovation Committee, College of IT, (2011/2012). • Service Science Management & Engineering Curriculum Development Committee, College of IT, (2/2010-9/2012). • University Students Disciplinary Committee (9/2008- 9/2012). • University Academic Development Committee (6/2010-9/2011). • Training and rehabilitation of university employees Committee (2010/2011). • University E-portfolio Committee (2010/2011). • Graduation projects Evaluation Committee. Department of Computer Engineering (2011/2012). • Accreditation and Quality Assurance Committee, Network Engineering and Security Department, (2009/2010). • Scientific Research Committee, Network Engineering and Security Department (2009/2010). • Development of MS program in the Department Network

Engineering & Security Committee (2011/2012).

- Course Schedule Committee, Computer Engineering Department, (2008/200).
- Tenders and Labs Committee. Computer Engineering Department, (2005/2006).
- Graduate Studies Committee, College of IT, (9/2008-9/2010).
- Study Plans and Courses Transfer Committee, College of IT, (2009/2010).
- Scholars Committee, Department of Computer Engineering, (2006-2009).