

# Yaser Jararweh

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## Brief:

My research interests include optimizing resource utilization (especially in cloud computing, wireless and mobile cloud computing), big data computing, security and large scale social networks analysis. I am interested in optimization theory and its application in formulating and solving resource management problems in computing and communication systems.

## Education:

- Ph.D. in Electrical & Computer Engineering, August 2010.  
The University of Arizona, Tucson, AZ, USA.  
Dissertation: “Autonomic Programming Paradigm for High Performance Computing”.
- M.Sc., Computer Engineering, October 2007.  
Jordan University of Science & Technology, Irbid, Jordan.  
Thesis: “An Integrated Radix-4 Modular Divider/Multiplier Hardware Architecture for Cryptographic Applications”.
- B.Sc., Computer Engineering, June 2005.  
Jordan University of Science & Technology, Irbid, Jordan.

## Work Experience:

- Associate Professor, Jordan University of Science and Technology Feb 2016 - Now
- Assistant Professor, Jordan University of Science and Technology Feb 2011- Feb 2016
- Vice dean of Faculty of Computer and Information Technology, Jordan University of Science and Technology, Sept. 2014 – Now
- Visiting Research Scientist: University of California, Riverside, USA March to April 2015
- Visiting Research Scientist: Staffordshire University, UK. Sept. to Oct. 2014
- Visiting Research Scientist: Internet Initiative Japan (IIJ) – Tokyo, Japan Aug. to Sept. 2013
- Visiting Research Scientist: Heidelberg Institute for Theoretical Studies, Germany. June to July 2013
- Visiting Research Professor: University of Warsaw, Poland, July to Aug. 2012

## Honors & Awards

- Arab-American Frontiers Fellowship, Dec 2015.
- USAID –NSF Research Visit Award, University of California, Riverside, March 2014 and March 2015.
- Erasmus Mundus Partnership PEACE II Scholarship; September 2014.
- Research Fellowship, IIJ Innovation Institute, Inc. Japan, August 2013 – September 2013
- Research Visit Award, Heidelberg Institute for Theoretical Studies, Germany, June 2013
- Erasmus Mundus Partnership JOSYLEEM Scholarship; July 2012 – September 2012
- The University of Arizona Graduate School scholarship (2007-2010)

## Published Papers:

### Journals:

1. **Yaser Jararweh**, Moath Jarrah, Mazen Kharbutli, Zakarea Alshara, Mohammed Noraden Alsaleh and Mahmoud Al-Ayyoub. CloudExp: A Comprehensive Cloud Computing Experimental Framework. *Simulation Modelling Practice and Theory* 49(0): 180-192, 2014.
2. **Yaser Jararweh**, Mahmoud Al-Ayyoub, Ala' Darabseh, Elhadj Benkhelifa, Mladen Vouk, Andy Rindos. SDIoT: A Software Defined based Internet of Things framework, *Journal of Ambient Intelligence and Humanized Computing*, 2015, doi:10.1007/s12652-015-0290-y
3. Haythem Bany Salameh, **Yaser Jararweh**, Abdallah Khreishah, Taimour Aldalgamouni, Cooperative weighted-fair control strategy for spectrum self-coexistence in multi-cell WRAN systems, *Computers & Electrical Engineering*, doi: /10.1016/j.compeleceng.2015.07.018.
4. Muhannad Quwaider, **Yaser Jararweh**, A cloud supported model for efficient community health awareness, *Pervasive and Mobile Computing*, doi: /10.1016/j.pmcj.2015.07.012.
5. Mahmoud Al-Ayyoub, Mohammad Wardat, **Yaser Jararweh** and Abdallah A Khreishah. Optimizing Expansion Strategies for Ultrascale Cloud Computing Data Centers. *Simulation Modelling Practice and Theory*. To appear. doi:10.1016/j.simpat.2015.03.002
6. Moath Jarrah, Manar Jaradat, **Yaser Jararweh**, Mahmoud Al-Ayyoub, Abdelkader Bousselham, A hierarchical optimization model for energy data flow in smart grid power systems, *Information Systems*, doi:10.1016/j.is.2014.12.003.
7. Mahmoud Al-Ayyoub, Ansam M. Abu-Dalo, **Yaser Jararweh**, Moath Jarrah and Mohammad Al Sa'd. A GPU-Based Implementations of the Fuzzy C-Means Algorithms for Medical Image Segmentation. *Journal of Supercomputing*. 2015.
8. **Yaser Jararweh**, Mahmoud Al-Ayyoub, Ahmad Doulat, Ahmad Al Abed Al Aziz, Haythem Bany Salameh and Abdallah Khreishah. Software Defined Cognitive Radio Network Framework: Design and Evaluation. *International Journal of Grid and High Performance Computing (IJGHPC)*. doi: 10.4018/ijghpc.2015010102
9. Muhannad Quwaider, **Yaser Jararweh**, Cloudlet-based Efficient Data Collection in Wireless Body Area Networks, *Simulation Modelling Practice and Theory*, Volume 50, January 2015, Pages 57-71, <http://dx.doi.org/10.1016/j.simpat.2014.06.015>.
10. **Yaser Jararweh**, Huda Ababneh, Mohammad Alhammouri, Lo'ai Tawalbeh. Energy Efficient Multi-Level Network Resources Management in Cloud Computing Data Centers. *Journal of Networks* 05/2015; 10(5):273-280. DOI: 10.4304/jnw.10.5.273-280
11. Raed T. Al-Zubi, Khalid A. Darabkh, and **Yaser I. Jararweh**. "A Powerful Yet Efficient Iris Recognition Based on Local Binary Quantization." *Information Technology and Control* 43.3 (2014): 244-251.
12. Qutaibah Althebyan, Omar Alqudah, **Yaser Jararweh**, Qussai Yaseen. A Scalable Map Reduce Tasks Scheduling: A Threading Based Approach. In Press, To Appear in *International Journal of Computational Science and Engineering*, 2015.
13. Lo'ai Tawalbeh, **Yaser Jararweh**, Fadi Ababneh, Fahd Dosari. Large Scale Cloudlets Deployment for Efficient Mobile Cloud Computing. *Journal of Networks* 02/2015; 10(1):70-76. DOI: 10.4304/jnw.10.1.70-76
14. Qutaibah Althebyan, **Yaser Jararweh**, Qussai Yaseen, Omar Alqudah, Mahmoud Al-Ayyoub Evaluating Map Reduce Tasks Scheduling Algorithms over Cloud Computing Infrastructure, In Press 2015. *Concurrency and Computation: Practice & Experience*
15. Muhannad Quwaider and **Yaser Jararweh**, "Cloud-assisted Data Management in Wireless Body Area Networks" To Appear in *International Journal of Computational Science and Engineering*, In Press, 2015.

16. Mahmoud Al-Ayyoub, Mustafa Daraghme, **Yaser Jararweh**, Qutaibah Althebyan "Towards Improving Resource Management in Cloud Systems using a Multi-Agent Framework", International Journal of Cloud Computing (IJCC), In Press, 2015.
17. Mohammed A. Shehab, Yahya M. Tashtoush, Wegdan A. Hussien, Mohammed N. Alandoli, **Yaser Jararweh**. An Accumulated Cognitive Approach to Measure Software Complexity. Journal of Advances in Information Technology 02/2015; 6(1):7.
18. Mahmoud Al-Ayyoub, **Yaser Jararweh**, Mustafa Daraghme and Qutaibah Althebyan. Multi-Agent Based Dynamic Resource Provisioning and Monitoring for Cloud Computing Systems Infrastructure. Cluster Computing. To appear. doi:10.1007/s10586-015-0449-5
19. **Yaser Jararweh**, Salim Hariri. "Power and Performance Management of GPUs based Cluster", International Journal of Cloud Applications and Computing, 2(4), 16-31.
20. **Yaser Jararweh**, Ola Sharqawei, Nawaf Abdullah, Lo'ai Tawalbeh, Mohammad Alhammouri: "High Throughput Encryption for Cloud Computing Storage system". International Journal of Cloud Applications and Computing 2014.
21. **Yaser Jararweh**, Abdelkader Bousselham, Moath Jarrah, "GPU Scaling: From Personal Supercomputing to the Cloud." IJITWE 9.4 (2014): 13-23. Web. 20 Jun. 2015. doi:10.4018/ijitwe.2014100102
22. Rindos, Andy, Mladen Vouk and **Yaser Jararweh**. "The Virtual Computing Lab (VCL): An Open Source Cloud Computing Solution Designed Specifically for Education and Research." IJSSMET 5.2 (2014): 51-63. Web. 29 Nov. 2014. doi:10.4018/ijssmet.2014040104.
23. **Yaser Jararweh**, Lo'ai Tawalbeh, Hala Tawalbeh, Abidalrahman Mohd. "28 nm FPGAs support for high throughput, low power Cryptographic applications", Journal of Advances in Information Technology, Vol 4, No 2 (2013), 84-90, May 2013
24. **Yaser Jararweh**, Zakarea Alshara, Moath Jarrah, Mazen Kharbutli, Mohammed Noraden Alsaleh." TeachCloud: Cloud Computing Educational Toolkit". International Journal of Cloud Computing (IJCC), Vol. 2, No. 2/3, 2013.
25. **Yaser Jararweh**, Loai Tawalbeh, Hala Tawalbeh, Abedalrahman Mohd, "Hardware Performance Evaluation of SHA-3 Candidate Algorithms", Journal of information Security, 3(2): 69-76 (2012)
26. Lo'ai Tawalbeh, **Yaser Jararweh**, Abedalrahman Mohd. "An Integrated Radix-4 Modular Divider/ Multiplier Hardware Architecture for Cryptographic Applications". IAJIT, Vol. 9, No. 3, May 2012.

#### Peer Reviewed Conference Papers:

27. Mahmoud Al-Ayyoub, **Yaser Jararweh**, Loai Tawalbeh, Anas Basalamah, "Power Optimization of Large Scale Mobile Cloud Computing Systems". FiCloud 2015, Rome, Italy.
28. Manar Jaradat, Moath Jarrah, Abdelkader Bousselham, **Yaser Jararweh**, and Mahmoud Al-Ayyoub. "The Internet of Energy: Smart Sensor Networks and Big Data Management for Smart Grid", International Conference on Future Networks and Communications 2015, Belfort, France.
29. Ala' Darabseh, Mahmoud Al-Ayyoub, **Yaser Jararweh**, Elhadj Benkhelifa, Mladen Vouk and Andrew Rindos." SDDC: A Software Defined Datacenter Experimental Framework". FiCloud 2015, Rome, Italy.
30. Muhannad Quwaider, **Yaser Jararweh**, Mahmoud Al-Ayyoub and Rehab Duwairi. "Experimental Framework for Mobile Cloud Computing System." In the proceedings of the 6th International Conference on Ambient Systems, Networks and Technologies (ANT 2015), 2015.
31. Ala' Darabseh, Mahmoud Al-Ayyoub, **Yaser Jararweh**, Elhadj Benkhelifa, Mladen Vouk and Andrew Rindos. "SDSecurity: A Software Defined Security Experimental Framework." In the

- proceedings of the IEEE International Conference on Communications (ICC 2015), London, UK.
32. Mohammed Shehab, Mahmoud Al-Ayyoub and **Yaser Jararweh**. Improving FCM and T2FCM Algorithms Performance using GPUs for Medical Images Segmentation. In the 6th International Conference on Information and Communication Systems (ICICS 2015), 2015.
  33. Mohammad Al-Rousan, Elham Al-Shara, **Yaser Jararweh** "AMCC: Ad-hoc based Mobile Cloud Computing Modeling". International Conference on Future Networks and Communications 2015, Belfort, France.
  34. Enas Kanan, Ghaith Husari, Mahmoud Al-Ayyoub and **Yaser Jararweh**. "Towards Improving Channel Switching in Cognitive Radio Networks." In the 6th International Conference on Information and Communication Systems (ICICS 2015), 2015.
  35. Elhadj Benkhelifa, Thomas Welsh, Loai Tawalbeh, Yaser Jararweh, Anas Basalamah. "User Profiling for Energy Optimisation in Mobile Cloud Computing ". First International Workshop on Mobile Cloud Computing Systems, Management, and Security (MCSMS-2015), London, UK, 2015.
  36. Bashar Al Shboul, Mahmoud Al-Ayyoub and **Yaser Jararweh**. "Multi-Way Sentiment Classification of Arabic Reviews." In the 6th International Conference on Information and Communication Systems (ICICS 2015), 2015.
  37. Ala' Darabseh, Mahmoud Al-Ayyoub, **Yaser Jararweh**, Elhadj Benkhelifa, Mladen Vouk and Andrew Rindos. "SDStorage: A Software Defined Storage Experimental Framework." In the proceedings of the IEEE International Conference on Cloud Engineering (IC2E 2015), Arizona, USA.
  38. **Yaser Jararweh**, Mahmoud Al-Ayyoub, Izzat Alsmadi, Darrel Jenerette, " Climate Change above the Cloud: Accelerating Climate Change Research with Cloud Computing Infrastructure." In the proceedings of 3rd International IBM Cloud Academy Conference (ICA CON 2015)
  39. Rami Mohawesh, Qutaibah Althebyan, Qussai Yaseen, **Yaser Jararweh**. A Knowledge Base "Insider Threat Prevention Model in a Cloud Data Center. " In the proceedings of 3rd International IBM Cloud Academy Conference (ICA CON 2015)
  40. Bassam Arkok, Mahmoud Al-Ayyoub, **Yaser Jararweh**, Izzat Alsmadi and Elhadj Benkhelifa. "Collaboration Networks of Levantine Biomedical Researchers. " In the proceedings of the 7th IEEE/ACM International Conference on Utility and Cloud Computing (UCC 2014), London, UK.
  41. Mosab Faqeeh, Mahmoud Al-Ayyoub, Mohammad Wardat, Ismail Hmeidi and **Yaser Jararweh**. "Topical Search Engine for Internet of Things." In the proceedings of the 11th ACS/IEEE International Conference on Computer Systems and Applications (AICCSA 2014), 2014.
  42. Haneen Ta'amneh, Ehsan Abu Keshek, Manar Bani Issa, Mahmoud Al-Ayyoub and **Yaser Jararweh**. "Compression-Based Arabic Text Classification." In the 11th ACS/IEEE International Conference on Computer Systems and Applications (AICCSA 2014), 2014.
  43. **Yaser Jararweh**, Izzat Alsmadi, Mahmoud Al-Ayyoub and Darrel Jenerette. "The Analysis of Large-Scale Climate Data: Jordan Case Study." In the 11th ACS/IEEE International Conference on Computer Systems and Applications (AICCSA 2014), 2014.
  44. Manar Jaradat, Moath Jarrah, **Yaser Jararweh**, Mahmoud Al-Ayyoub and Abdelkader Bousselham. "Integration of Renewable Energy in Demand-Side Management for Home Appliances ". In the 2nd International Renewable and Sustainable Energy Conference (IRSEC), 2014.
  45. Ahmad Doulat, Ahmad Al Abed Al Aziz, Mahmoud Al-Ayyoub, **Yaser Jararweh**, Haythem Bany Salameh and Abdallah Khreishah. "Software Defined Framework for Multi-Cell

- Cognitive Radio Networks." In the 2014 IEEE 10th International Conference on Wireless and Mobile Computing, Networking and Communications (WiMob), 2014.
46. Mosab Faqeeh, Nawaf Abdulla, Mahmoud Al-Ayyoub, **Yaser Jararweh** and Muhannad Quwaider. "Cross-Lingual Short-Text Document Classification for Facebook Comments ". In the proceedings of the 2nd International Conference on Future Internet of Things and Cloud (FiCloud 2014), 2014.
  47. Mohammad Wardat, Mahmoud Al-Ayyoub, **Yaser Jararweh** and Abdallah Khreishah. "To Build or Not to Build? Addressing the Expansion Strategies of Cloud Providers. "In the proceedings of the 2nd International Conference on Future Internet of Things and Cloud (FiCloud 2014), 2014.
  48. Mahmoud Al-Ayyoub, Mustafa Daraghmeh, **Yaser Jararweh** and Qutaibah Althebyan. "Multi-Agent Based Dynamic Resource Provisioning and Monitoring In Cloud Computing System." In the 2nd International IBM Cloud Academy Conference (ICA CON 2014).
  49. **Yaser Jararweh**, Mahmoud Al-Ayyoub, Ahmad Doulat, Ahmad Al Abed Al Aziz, Haythem Bany Salameh and Abdallah Khreishah. "SD-CRN: Software Defined Cognitive Radio Network Framework." In the proceedings of the IEEE International Conference on Cloud Engineering (IC2E 2014).
  50. **Yaser Jararweh**, Mahmoud Al-Ayyoub, Ahmad Doulat, Ahmad Abed Al Aziz, H. Bany Salameh, and A. Khreishah, "SD-CRN: Software Defined Cognitive Radio Network Framework", in IEEE IC2E, Boston, MA, March, 2014.
  51. Muhannad Quwaider and **Yaser Jararweh**, "An efficient big data collection in Body Area Networks," in 2014 5th International Conference on Information and Communication Systems (ICICS), 2014, pp. 1–6.
  52. Yaser Mhaidat, Mohammad A. Alsmirat, Osamah S. Badarneh, **Yaser Jararweh**, H. Bany Salameh. "A Cross-Layer Video Multicasting Routing Protocol for Cognitive Radio Networks". 2014 IEEE 10th International Conference on Wireless and Mobile Computing, Networking and Communications (WiMob 2014), Larnaca, Cyprus, October 2014.
  53. **Yaser Jararweh**, L. A. Tawalbeh, F. Ababneh, Abdallah Khreishah and F. Dosari, "Scalable Cloudlet-based Mobile Computing Model". In the proceeding of the 11th International Conference on Mobile Systems and Pervasive Computing (MobiSPC-2104). Niagara Falls, Ontario, Canada, August 2014.
  54. H. Bany Salameh, **Yaser Jararweh**, T. Aldalgamouni, Abdallah Khreishah "Traffic-driven Exclusive Resource Sharing Algorithm for Mitigating Self-coexistence Problem in WRAN Systems", IEEE Wireless Communications and Networking Conference (WCNC), Istanbul, Turkey, April 2014.
  55. Qutaibah Althebyan, Omar Alqudah, **Yaser Jararweh**, Qussai Yaseen, "Multi-Threading Based Map Reduce Tasks Scheduling", In the proceeding of IEEE ICICs 2014, Irbid Jordan.
  56. Qutaibah Althebyan, Omar Alqudah, Yaser Jararweh, Qussai Yaseen. " Evaluating Map Reduce Tasks Scheduling Algorithms over Virtualized Infrastructure ", In the proceeding of the 2nd International IBM Cloud Academy Conference (ICA CON 2014), Atlanta, Georgia USA , May 2014.
  57. Andy Rindos, Mladen Vouk, **Yaser Jararweh**. "The Virtual Computing Lab (VCL): An Open Source Cloud Computing Solution Designed Specifically for Education and Research". International workshop on Cloud Computing Applications and Security, ICICS-2013, Jordan, April 23-25, 2013.
  58. **Yaser Jararweh**, "CloudFlow based High Performance Cloud Computing Systems", Poster , International Conference on Scientific Computing -2013, Paphos, Cyprus, 3 - 6 December 2013.

59. Mohammad Bani Hani, Haythem Bany Salameh, **Yaser Jararweh** Abdelkader Bousselham, "Traffic-aware Self-Coexistence Management in IEEE 802.22 WRAN Systems", IEEE GCC-2013, Doha, Qatar.
60. **Yaser Jararweh**, Abdelkader Bousselham. "PSC-GPU: Personal Supercomputing using GPU Accelerators" ICICS 2013, Jordan, April 23-25,2013
61. Mazen Kharbutli, Moath Jarrah, and **Yaser Jararweh** 'SCIP: Selective Cache Insertion and Bypassing to Improve the Performance of Last-Level Caches', IEEE - AEECT 2013, December 2013, Amman, Jordan.
62. **Yaser Jararweh**, L. A. Tawalbeh, F. Ababneh and F. Dosari, "Resource Efficient Mobile Computing using Cloudlet Infrastructure". 2013 IEEE Ninth International Conference, Mobile Ad-hoc and Sensor Networks (MSN), pp.373-377, 11-13 Dec. 2013 Dalian-China, December 11- 13, 2013
63. Muhannad Quwaider and **Yaser Jararweh**, "Cloudlet-based for Big Data Collection in Body Area Networks," in 8th International Conference for Internet Technology and Secured Transactions (ICITST), 2013, 2013, pp. 137–141, London, UK.
64. Qussai Yaseen, Qutaibah Althebyan, and **Yaser Jararweh**: "PEP-side caching: An insider threat port". IEEE IRI 2013: 137-144, August, 2013, San Francisco, CA, USA.
65. **Yaser Jararweh**, Mazen kharbutli, Moath Jarrah, Mohammed Noraden Alsaleh, Salim Hariri. "CloudFlow: An Innovative Management Framework for Cloud Computing Systems" 1st International IBM Cloud Academy Conference, ICA CON 2012, April 2012, North Carolina.
66. Shadi Zubi, **Yaser Jararweh**, Raed Shatnawi "Medical Volume Segmentation Using 3D Multiresolution Analysis", In the proceeding of IEEE IIT, March 2012. UAE.
67. **Yaser Jararweh**, Moath Jarrah, Salim Hariri. "Exploiting GPUs for Compute Intensive Medical Applications". IEEE ICMCS'12 May 2012 Morocco.
68. **Yaser Jararweh**, Zakarea Alshara, Moath Jarrah, Mazen Kharbutli, Mohammed Noraden Alsaleh." TeachCloud: Cloud Computing Educational Toolkit". 1st International IBM Cloud Academy Conference, ICA CON 2012, April 2012, North Carolina.
69. Abedalrahman Mohd, **Yaser Jararweh**, Lo'ai Tawalbeh." AES-512: 512-Bit Advanced Encryption Standard Algorithm Design and Evaluation". IEEE, IAS 2011, Malaysia.
70. **Yaser Jararweh**, Hala Tawalbeh, Lo'ai Tawalbeh Abedalrahman Mohd, "FPGA Performance Evaluation of SHA-3 Candidate Algorithms", MIC-CINT 2011, Dubai, UAE, December 2011.
71. **Yaser Jararweh**, Shadi Zubi, Salim Hariri," An Optimal Multi-Processor Allocation Algorithm for High Performance GPU Accelerators", 2011 IEEE Jordan Conference on Applied Electrical Engineering and Computing Technologies (AEECT), , pp.1-6, 6-8 Dec. 2011
72. **Yaser Jararweh**, Arjun Hary, Youssif B. Al-Nashif, Salim Hariri, Ali Akoglu, Darell jenerette. "Accelerated Discovery through Integration of Kepler with Data Turbine for Ecosystem Research". AICCSA, May, 2009, Rabat, Morocco.
73. **Yaser Jararweh**, Salim Hariri, Talal Moukabary. "Simulating of Cardiac Electrical Activity with Autonomic Run Time Adjustments." AHSC Frontiers in Biomedical Research, Tucson, AZ, USA, November, 2009.
74. Salim Hariri, **Yaser Jararweh**, Yeliang Zhang, Talal Moukabary."Physics aware programming paradigm: approach and evaluation". CLADE 2008, June 23, 2008, Boston, Massachusetts, USA.

## Research Funding and Grants

- PI. (Co-PI: Darrel Jenerette, University of California, riverside). "Evaluating climate change impacts on the arid lands and water resources in Jordan".  
Funding Agency: USAID-NSF- National Academy of Science, USA.  
August 2013 – Dec 2015, \$87000.
- Co-PI (PI: Moath Jarrah) "Modeling and Simulation of Hybrid Renewable Energy Resources to Meet Every Day Needs through Smart and Autonomic Decision Making"  
Funding Agency: Jordan University of Science& Technology  
September 2013 –September 2015, \$7000.
- PI. (Co-PI: Mahmoud Al-Ayyoub) "A GPU-based breast cancer detection system using fuzzy c-means clustering algorithm"  
Funding Agency: Jordan University of Science& Technology  
March 2015 –March 2016, \$8000.

## Supervised Master Theses

1. Speed Up Needleman-Wunsch Global Alignment Algorithm Using Parallelism and Vectorization Techniques (07/2015)
2. Hierarchical Detection of Insider Attacks in Cloud Computing (05/2015)
3. An Experimental Framework for Software Defined Based Secure Storage Systems (05/2015)
4. Improving the Performance of Medical Image Segmentation Algorithms by Using Graphics Processing Unit (04/2015)
5. Collaboration Networks of Levantine Biomedical Researchers (11/2014)
6. Optimizing Expansion Strategies for Cloud Data Centers (08/2014)
7. Improving Channel Switching in Cognitive Radio Networks by Predicting Channel Availability and User Mobility (05/2014)
8. MedGraph: Graph-based representation and manipulation of medical images (12/2014)
9. Multi-Threading based Map-Reduce Tasks Scheduling (1/2014)
10. widespread energy cooperation between societies in smart grid (6/2014)
11. Secure Cloudlet-based Mobile Cloud Computing Model (1/2014)
12. Autonomic Cloud Computing Resources Scaling (5/2013)
13. Multi-agent based dynamic resource provisioning and monitoring in cloud computing (01/2014)
14. Dynamic Cognitive Radio Networks Virtualization Framework for Multi Cell Systems (01/2014)
15. Dynamic Cognitive Radio Networks Virtualization Framework (01/2014)
16. Video Multicast Over Cognitive Radio Networks; A cross- Layer Approach (5/2012)
17. Multicast Routing Over Multi-hop Cognitive Radio Networks (5/2012)
18. Anomaly Based Detection for Cognitive Radio Networks Attacks (7/2012)
19. Software/Hardware performance Evaluation of SHA-3 Candidates Algorithms (6/2012)

20. An Educational And Experimental Toolkit for cloud Computing (12/2012)
21. Energy Efficient Multi-Level Network Resources Management In Cloud Computing (12/2012)
22. High Throughput Encryption Algorithm for Cloud Computing Storage Systems (7/2012)
23. Traffic Aware Self - Coexistence Management in IEEE 802.22 WRAN Systems (12/2011)

**Conferences/Workshops Founded/Organized/ Chaired:**

- The 1st International Workshop on Cloud Computing Systems, Networks, and Applications (CCSNA-2013), in conjunction with IEEE Globecom 2013.
- The 2nd International Workshop on Cloud Computing Systems, Networks, and Applications (CCSNA-2014), in conjunction with IEEE Globecom 2014.
- The 3rd International Workshop on Cloud Computing Systems, Networks, and Applications (CCSNA-2015), in conjunction with IEEE ICC 2015.
- The 4th International Workshop on Cloud Computing Systems, Networks, and Applications (GC- CCSNA-2015), in conjunction with IEEE Globecom 2015.
- The 1st International workshop on Big Data and Social Networking Management and Security (BDSN 2013) in conjunction with the 8th International Conference for Internet Technology and Secured Transactions (ICITST 2013).
- The 2nd International workshop on Big Data and Social Networking Management and Security (BDSN 2014) in conjunction with the 7th IEEE/ACM International Conference On Utility and Cloud Computing (UCC 2014).
- The 3rd International workshop on Big Data and Social Networking Management and Security (BDSN 2015) in conjunction with the 8th IEEE/ACM International Conference On Utility and Cloud Computing (UCC 2015).
- The International Workshop on Internet of Things, Systems, Management and Security (IOTSMS-2014) in conjunction with the 11th ACS/IEEE International Conference on Computer Systems and Applications (AICCSA 2014).
- The International Workshop on Internet of Things, Systems, Management and Security (IOTSMS-2015) in conjunction with the 12th ACS/IEEE International Conference on Computer Systems and Applications (AICCSA 2015).
- The International Workshop on Mobile Cloud Computing systems, Management, and Security (MCSMS 2015) in conjunction with the 6th International Conference on Ambient Systems, Networks and Technologies (ANT 2015).
- The First International Workshop on Online Social Networks Technologies (OSNT 2015) in conjunction with the 2015 IEEE Jordan Conference on Applied Electrical Engineering and Computing Technologies (AEECT 2015).
- The IEEE International Workshop on Software Defined Systems (SDS 2014) in conjunction with the IEEE International Conference on Cloud Engineering (IC2E 2014).
- The IEEE International Workshop on Software Defined Systems (SDS 2015) in conjunction with the IEEE International Conference on Cloud Engineering (IC2E 2015).
- The 2nd International IBM Cloud Academy Conference (ICA CON 2014)



- The 3rd International IBM Cloud Academy Conference (ICA CON 2015)
- The First International Workshop on Social Networks Analysis, Management and Security (SNAMS 2014) in conjunction with the 2nd International Conference on Future Internet of Things and Cloud (FiCloud 2014).
- The Second International Workshop on Social Networks Analysis, Management and Security (SNAMS 2015) in conjunction with the 3rd International Conference on Future Internet of Things and Cloud (FiCloud 2015).
- The 1st International workshop on Cloud Computing Applications and SEcurity (CASE 2013) in conjunction with the 4th International Conference on Information and Communication Systems (ICICS 2013).
- The 2nd International workshop on Cloud Computing Applications and SEcurity (CASE 2014) in conjunction with the 4th International Conference on Information and Communication Systems (ICICS 2014).

### **Journals Special Issue Guest Editor:**

- International Journal of Computational Science and Engineering.
  - "Advances in Computational Science, Information Technology and Engineering", 2014
- International Journal of Big Data Intelligence. 2014.
  - Special Issue on "Big Data Intelligence for Social Computing"
- International Journal of Grid and High Performance Computing.
  - Special Issue on: "Software Defined based High Performance and Cloud computing Systems" 2014.
- International Journal of Embedded Systems.
  - Special Issue on: "Advanced Mobile Cloud Computing and Internet of Things Systems and Networking" 2015.
- International Journal of High Performance Computing and Networking.
  - Special Issue on: "Software Defined High Performance and Networking Systems" 2015.

### **Journals Associate Editor:**

- Cluster Computing, Springer
- Information Processing & Management, Elsevier
- International Journal of High Performance Computing and Networking.
- International Journal of Communication Networks and Information Security (IJCNIS)

### **Journals/Conferences/Workshops Reviewer/TPC Member:**

- IEEE Transactions on Services Computing
- IEEE Transactions on Cloud Computing
- IEEE/ACM Transactions on Networking (IEEE/ACM ToN).
- International Journal of Computational Science and Engineering (IJCSE).
- International Journal of Big Data Intelligence (IJDBI).
- The IEEE Global Communication Conference (Globecom 2013) (Globecom 2014) (Globecom 2015)
- The IEEE International Conference on Communications (ICC 2015) (ICC 2014).

- The IEEE Jordan Conference on Applied Electrical Engineering and Computing Technologies (AEECT 2011), (AEECT 2013), (AEECT 2015).
- The IEEE International Conference on Connected Vehicles & Expo (ICCVE 2013).
- The International Conference on Information and Communication Systems (ICICS 2012), (ICICS 2013), (ICICS 2014), (ICICS 2015).
- The 2014 International Symposium on Technology Management and Emerging Technologies (ISTMET 2014).
- The 2010 IEEE 72nd Vehicular Technology Conference (VTC2015).
- The 2013 IEEE Wireless Communications and Networking Conference (WCNC 2014).
- Technical reviewer and TPC for the following conferences:  
 IEEE AEECT (2011,2013,2015), MIC-CENT 2011, MIC-CES2011 , IIT 2012,2014, ICCASA 2012, ICMCS (2012, 2014), ISCAIE 2012, InterCloud-HPC 2013, HPCC 2013, ICTCC 2014, IRSEC'14, BigR&I (2014,2015), SPINS 2014,2015, AICCSA (2014,2015) i-Society 2014 , ISBAST 2014, ICCVR 2015, ANT 2015, ICACON (2014,2015), IRESC, (2014,2015)