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PERSONAL INFORMATION

	Jordanian
	June 1, 1966
	Married with 3 daughters and 2 sons.

EDUCATION

1992–1996 *Concordia University* *Montreal, Canada*	**Ph.D. in Electrical and Computer Engineering.** (scholarship from Jordan University of Science and Technology) **Dissertation Topic:** High Level Synthesis for DSP Data Flow Graphs. **Research Methodology:** Graph Theory Validation and Software Implementation. **Thesis Rank**: Outstanding Nominated for the Canadian Gold Medal for best thesis. **Course work Topics**: Computer Architecture, VLSI, Neural Networks, Combinatorial Theory, Networks, Queuing Theory, and Mathematics.
1989-1992 *Jordan University of Science and Technology, Jordan*	**M.Sc. in Electrical Engineering.** **Dissertation Topic:** Microprocessor (TMS 320x) based detection of DTMF signals. **Course work Topics:** Digital Communications, Electronics and Integrated Circuits, Information Theory, Detection and Estimation, Advanced Applied Mathematics.
1984-1989 *Jordan University of Science and Technology, Jordan*	**B.Sc. in Electrical Engineering (Major in Computers).** Senior Project: OS development for a microcomputer based on the 6809 micro-processor.

AFFILIATIONS

1996 – 2002 2005 – 2009 2014 - now	Jordan University of Science and Technology, Irbid, Jordan
2002 – 2005	The Hashemite University, Zarqa, Jordan
2009-2010	Princess Sumya University For Technology
2010 – 2014	Arab East College for Post-Graduate Studies, Riyadh, KSA

ACADEMIC RANK: PROFESSOR

AREAS OF PROFESSIONAL INTEREST

- Teaching and Research
- Academic Accreditation and Quality
- ICT Strategic Planning
- Enterprise IT Solutions
- Higher Education Planning
- E-learning and OER
- System Analysis of Information Systems

ACADEMIC AND TECHNICAL CONSULTATION POSITIONS

1. IT and Academic Consultant, Arab East Graduate College, Riyadh, KSA (2010-2014)

Main Contributions	
	* Designed and implemented the work procedures for the student admission and registration.
	* Designed and implemented the electronic forms used by students.
	* Designed and implemented most of the academic documents.
	* Supervised the implementation of a tier-2 data center, including site preparation, hardware solution, application, and Internet connectivity.
	* Designed and supervised the implementation of the network infrastructure.
	* Designed and supervised the implementation of the computer central site.
	* Designed and supervised the implementation of the IP Telephony infrastructure
	* Designed and supervised the implementation of the lecture sharing facilities.
	* Designed and supervised the implementation of the shared rooms to allow female students to enroll in male classes.
	* Prepared the quality document required by the MOHE to include the college in the Internal Scholarship Program
	* Prepared contracts between the college and other colleges who intended to implement the college programs at their premises.
	* Prepared the contracts with IT companies providing services to the college
	* Prepared the college contracts with part-time professors.
	* Designed and Implemented an IT solution to manage the student registration and grading system
	* Prepared a full RFP for a standard IT Solution
	* Played a major role in recruiting faculty members
	* Daily Configuration and operation of the local area network
	* Daily Configuration and operation of the IP Telephony network
	* Preparation of the college course schedule

	* Designed and implemented a system to produce a conflict-free final examination schedule.
	* Supervised and implemented the College ERP and SIS solutions along with the design of all business rules.
	* Member of the higher committee for quality assurance
	* Presented workshops for instructors on course quality control

2. *System consultant, Universal For Trading & Information Technology co. Riyadh, KSA (2011-2014)*

| *Main Task* | System analysis and development of business rules for two student information systems (SIS) developed by the company and an educational ERP system. |

3. *Director of Information Technology Center, Jordan University of Science and Technology, (1996-1999)*

	* Established the first LAN network with ATM backbone for 1000 ports.
	* Initiated, supervised and implemented a total university MIS solution.
	* Supervised the solution of the Y2K problem at JUST MIS.
	* Participated in the design of an inter-university network infrastructure and specifications through a project sponsored by the World Bank.
	* Headed the IT committee for the computerization and automation of King Abdullah University Hospital.
	* Participated in the design of the IT infrastructure for the Ministry of Education.

4. *Consultant, UNESCO, Cairo Office, (2001-2006)*

| *Main Tasks* | * Senior quality assurance officer for ICT capacity building in the Arab word |
| | * Trainer on advanced ICT tools for the MOE and the community in general. |

ACADEMIC ADMINISTRATIVE POSITIONS

1. *Dean of College, Computer and Information Technology, Jordan University of Science and Technology Sept. 2016- Sept 2018.*

Main Contributions	• Established a new master program in Network Engineering and Security, started in Sept. 2017.
	• Established a new master program in Data Science, started in Sept. 2018.
	• Designed the Course Electronic Portfolio System and supervised its implementation- complies with ABET standards and customizable to any other accreditation system. This project is becoming the core application in the university for analyzing the student attainment of the ILOs.

	• Prepared the proposal to establish a university center for e-learning and open educational resources (OER) – approved by the ministry of higher education and started Jan 2018.
	• Prepared the proposal to establish a notional OER center – approved by the ministry of higher education.
	• Proposed and supervised the transfer from the mark-system to the letter grade system and analyzed the impact of the transformation on the student standings.
	• Designed the teacher-evaluation system and supervising its implementation and integration with the university information system.
	• Drafted the B.Sc. degree regulations to comply with the new grading system
	• Designed the electronic meeting archiving system and supervised its implementation.
	• Drafted the career path regulations at JUST.
	• Participated in the design of the electronic promotion system and supervision of its implementation.
	• Established the skill-building program for all college students to provide extra-curriculum training to enhance the chance of graduates of finding jobs. (Establishing the programming-innovation club.)
	• Establish the Security Operations Center (SOC) at JUST to link the college with industry in the field of security and to provide services to the local and regional market.
	• Obtained the ABET accreditation for the Computer Engineering Program.
	• Chaired the 8th and 9th Version of the college international conference ICICS2017/2018.
University Committees	• Member of the university strategic planning higher committee
	• Member of the registration general committee
	• Member of the higher committee for academic quality
	• Head of the committee to establish an e-learning and OER center
	• Head of the committee to design the university brochure and video
	• Member of the e-promotion committee
	• Member of the mark to letter conversion committee
	• Member of the strategic plan drafting committee
	• Member of the computer center board.
	• Member of the committee to draft the summer research leave regulations
	• Head of the committee to propose the university employee career path
	• Member of the committee to enforce the code of ethics for students.
	• Head of the committee to draft the invigilation code of conduct.
	• Member of the committee to design the teacher evaluation template.

	• Member of the committee to transform selected courses to problem/project-based courses.
	• Member of the committee to state the rules of joint-appointment in the university.
	• Member of the committee to state the rules of dual degree programs.
	• Member of the committee to modify the B.Sc. regulation to comply with the new policies and procedures.
	• Member of the committee to draft the online courses policies and practices.
	• Member of the committee to improve engineering education to meet the needs of the labor market
	• Member of the committee to prepare the new faculty orientation package and training program.
National Committees	• Member of the committee to draft the proposal to establish and national OER Center
	• Member of the committee to prepare the competency exam for all IT-related programs (several times; most recent 2019)
	• Member of the committee to design master programs for the military IT specialists – supervised by King Abdullah II Design and Development Bureau (KADDB).
Major Student Activities	• Supervised the ethical hacking competition, Capture the Flag (Twice)
	• Supervised the ACM programming competition (several times)
	• Supervised the Programming Training for School students (twice)

2. Dean of College, Information Technology
The Hashemite University (Sept. 2002 – Sept. 2005)

Vital Contributions	* Established the new college by doing the following:
	    * Building the college hardware and software infrastructure
	    * Appointing the technical staff of the college.
	    * Designing the curriculum of the college different disciplines.

	* Selecting a group of B.Sc. and Master Holders to be sent on scholarships to obtain the PhD in some major IT specialties, and helping them obtain admissions at the top Western schools.
	* Participated in the articulation of the Hashemite University Regulations and Bylaws.
	* Initiated the Hashemite University E-learning Project and supervised its implementation.
	* Designed the IT building Network.
	* Planned and supervised the implementation of the IT building wireless campus
	* Supervised the implementation of the E-campus project
	* Planned and supervised the implementation of the video-on-demand university project
	* Chaired the project for providing consultation on the improvement the ICT services in the higher education institutions.

	* Chaired more than ten technical committees for tenders pertaining to ICT infrastructure.
	* Drafted agreements with international institutions.
	* Chairing the ICT (information and communication technology) board
	* Planning for the ICT infrastructure and capacity building
	* Planning for the university education portal
	* Planning and supervising the university audio-visual facilities
	* Initiated and supervised the implementation of the university on-line examination office and infrastructure
University Committees	* Central Tendering Committee
	* Faculty Scientific Committee, Research committee, and Employment Committee
	* Student Appeals Committee
	* Planning and follow-ups committee
	✱ Information and Communication Board
Special Task Committees	* Member of a committee to draft the university mission, goals, and policies.
	* Member of the committee to study the prospective projects to be submitted to the UNESCO
	* Member of a committee to provide recommendations on the implementation of a university MIS solution as a part of the world bank project.
	* Member of a committee to study the potential cooperation with UAE institutions.
	* Member of a committee to modify the student registration procedure to comply with the best practices
	* Member of a committee to arrange for the procurement of the furniture and equipment of the IT building
	* Member of a committee to plan for the university qualifying test
	* Member of a committee to draft the potential projects to be sponsored through the higher education reform program
	* Member of a committee to establish the Jordanian Universities' Intranet.
	* Member of a committee to prepare the university annual report.

3. Vice Dean of College, Computer and Information Technology, Jordan University of Science and Technology
Sept. 2001 – Sept. 2002

Main Contributions	* Participated in the organization of the 2nd International Arab Conference on Information Technology, 13-15 Nov. 2001, JUST.
	* Participated in the economic transformation project for improving the university IT infrastructure
	* Drafted the instructions of the Student Senior Training
	* Participated in the design and articulation of the new bachelor and Master Programs Curricula.
	* Drafting the college self-assessment report

SPECIFIC ASSIGNMENTS AND CONSULTATIONS	

*   MOHE national committee to prepare the competency exam for all the fields in computer science and information technology 2017.
*   MOHE national committee to place the mandate of the national OER center, 2017.
*   KADDB national committee to design a master program for military officers, 2017.
*   General Chair of the ICICS'20172018 Conferences.
*   Steering Committee member and track chair of AEECT'2015 Conference
*   Participated in the technical committees for several conferences in and out of Jordan
*   Editorial board member for the International Journal of Excellence in e-Learning
*   Participated in several national committees for accreditation of Jordanian universities. Examples include:

    Amman Private University

    Al-Isra University

    Philadelphia University (General)

    Irbid Private University

    Amman Arab University

    Albalqa University (General)

    University of Jordan

    Applied Science University
*   Accreditation Requirements of Computer Specialties.
*   Part time consultant with the Jordan MOHE for certificate equivalency.
*   University Coordinator and focal person for the graduate competency exam, administrated by the Ministry of Higher Education.
*   Invited Speaker on the impact of Information Technology on health care, PRNC Conference, WHO sponsored, Dubai, March 2004.
*   Invited consultant for the UNESCO computer literacy project, Tehran, Iran.
*   Reviewed several papers in international and local journals, some of them for the IEEE transactions on circuits and systems.
*   Participated in the preparation of the MOHE competency test for the Computer Engineering Graduates, Class of 2006.
*   Participated in the technical committee of King Abdullah II Award for Innovation – Field of Information Technology
*   Presented a lecture on the impact of information technology on the Jordanian economy – June 2002. Abdelhameed Shoman Foundation.
*   Participated in an awareness workshop on E-government to the Libyan Government- Sept 2002, Tripoli – Libya.
*   Presented a 1-week workshop to a group of the university faculty members, on the use of the Internet & Publishing tools in Research, 1997.
*   Presented five 4-Semester Cisco CCNA training to the community, 6 months each.

	* A member of the evaluation committee for Abdul Hameed Shoman Award for Science Teachers in Jordanian Elementary and Secondary Schools, 2008.
	* A member of the evaluation committee for Abdul Hameed Shoman Award for Arab Scholars, 2008.
	* A member of the evaluation committee for Abdul Hameed Shoman Award for Science Teachers in Jordanian Schools, 2009.
	* A board member for Philadelphia Award of Best Student Senior Project. (2017-now)

TEACHING EXPERIENCE	
Courses	Combinatorial Graph Theory (Master)
	Data Structures and Algorithms
	Object Oriented Programming
	Advanced Programming using C++
	High Performance Computer Architectures (Master)
	Advance Computer Architecture
	Microprocessors and Assembly Language
	Computer Interfacing
	Computer Organization and Design
	Digital Integrated Circuits
	Digital Logic Design
Master Theses	Supervised more than 20 master theses in the fields:
	Analysis of dataflow graphs
	Computer Architecture: cache design, superscalar computer design, Scheduling of iterative data flow graphs
	High level synthesis for DSP applications
	Deep learning
	GPU applications
	Wireless Sensor Networks
	Sentiment Analysis
Senior Projects	Supervised more than 100 senior projects in different fields, including Databases, Web-Based applications, Client-Server Programming, Network Programming, Hardware Design and Modeling.
	Supervised a long-term project (3 years) on the development of a life plan health information system for Jordan.
DEPARTMENT COMMITTEES	
	* Student Project Committee
	* Senior Training Committee
	* Graduate Studies Committee
	* Scientific Research Committee
	* Recruitment Committee
	* Course Schedule Committee
	* Library Committee
	* Social Committee
TOOLS AND PROGRAMMING LANGUAGES	
	* C++
	* C, Pascal, Fortran
	* VLSI Tools.
	* Matlab.
	* HDL
	* UML and Rational Software Engineering
	* Oracle Developer and Java
	* MS System Administration

	* CISCO CCNA certified
	* OCCAM (parallel programming language)
	* SUN E-Frastructure
	* Web Publishing and Online Teaching Tools (FrontPage, WebCT, Blackboard, Moodle.)
	* C#.Net, ASP.Net

TRAINING

	* Java: 50 hour training at STS
	* Oracle Developer and Java Tracks: 200 hour training at Oracle certified training local company
	* MCSE training: 200 hour
	* Rational Rose: 50 hour training
	* CCNA: 280 hour through Cisco Academy E-learning Portal
	* E-Commerce Infrastructure: 80 hour training at SUN, London, UK
	* Web Publishing and Online Teaching Tools:
	* (3 x 1-week workshops by UNESCO Cairo Office)
	* C#.Net, ASP.Net: 100 hour training by Microsoft Jordan
	* .Net Infrastructure – 40 Hours, Microsoft, Dubai, UAE
	* Academic Quality Assurance, NCAAA, four workshops.

PUBLICATIONS

	1. A. Shatnawi, M.O. Ahmad, and M.N.S. Swamy, "Rate-Optimal Static Scheduling for DSP Data Flow Graphs onto Multiprocessors," in Proc. IEEE Pacific Rim Conference on Communications, Computers, and Signal Processing, pp 197-200, May 1995.
	2. A. Shatnawi, M.O. Ahmad, and M.N.S. Swamy, "Rate-Optimal Static Scheduling for DSP Data Flow Graphs onto multiprocessors using circuit contraction," in Proc. IEEE International Symposium on Circuits and Systems, pp. 1360-1363, May 1995.
	3. A. I. Abu-El-Haija, A. Elabdella, A. Shatnawi, "A Digital Receiver for Dual-Tone Multifrequency Signals", IEEE Instrumentation and Measurement Technology Conference, Ottawa, Canada, May 1997.
	4. Ali Shatnawi, M. O. Ahmad, and M.N.S. Swamy, "Scheduling of DSP Data Flow Graphs onto Multiprocessors for Maximum Throughput", The 1999 IEEE International Symposium on Circuits and Systems, Orlando, Florida, p 54.8, May 1999.
	5. Ali Shatnawi, and Jehad Ghanim, "Rate-optimal scheduling OF DSP applications onto integrated heterogeneous Multiprocessors", International Arab

Conference on Information Technology, Irbid, Jordan, Nov. 2001.

6. Ali Shatnawi, M. O. Ahmad, and M.N.S. Swamy, "Optimal Scheduling of Digital Signal Processing Data Flow Graphs Using Shortest Path Algorithms", The computer Journal, vol. 45, issue 1, pp 88-100, Jan 2002.

7. C. Duanmu, M. O. Ahmad, M.N.S. Swamy and Ali Shatnawi, "A Vector Based Fast Block Motion Estimation Algorithm for Implementation on SIMD Architectures", IEEE International Symposium on Circuits and Systems", Arizona, May 2002.

8. C. Duanmu, M.O. Ahmad, M.N.S. Swamy, M.N.S. and A. Shatnawi, "Optimization of the three-step search algorithm by exclusion of stationary macroblocks from the search process", IEEE International Conference on Electronics, Circuits and Systems (ICECS) September 2002, Dubrovnik, Croatia.

9. M. AL-Rousan, A. Shatnawi and S. Ahmed, "Modeling COMA Multiprocessor Systems Based on SCI", The Fourth Middle East Symposium on Simulation and Modelling, September 28-30, 2002, Sharjah, U.A.E.

10. Ali Shatnawi, Jehad Ghanim & M.N.S Swamy, "Memory Optimization on Heterogeneous Multiprocessor Embedded systems for DSP Applications", the International Journal of Modeling and Simulation, vol. 23, No. 4 , pp 240-249, 2003.

11. Abdoul Rjoub, Ali Shatnawi, "High Speed Low Power Multi-Threshold Voltage Flip Flops", Journal of Electrical Engineering, Vol. 54, No. 5-6, pp 123-127, 2003.

12. Awni Itradat, M. O. Ahmad, and Ali Shatnawi, ", Scheduling of DSP data flow graphs with processing times characterized by fuzzy sets, IEEE Canadian Conference on Electrical and Computer Engineering, May, 2004, pp 1245-1248, Niagara Falls, Ontario, Canada.

13. S. Bataineh, A. Shatnawi, and A. Audat, "Task-to-Processor Assignment in Heterogeneous Network of Processors (Cluster) System", The international Arab Conference on Information Technology, Algeria, 12-15Dec 2004.

14. Ali Shatnawi, "A Flow-Based Algorithm for computing the iteration bound in recursive data flow graphs", International Conference on Computational Intelligence, Istanbul, Turkey, 17-19/12/2004, pp 345-348.

15. Ali Shatnawi, "Computing the Loop Bound in Iterative Data Flow Graphs Using Natural Token Flow",

International Journal of Signal Processing, vol.1, no. 2, 2004, pp 135 -140.

16. Ali Shatnawi, Jehad Ghanim and MO Ahmad, "High Level synthesis of Integrated Heterogeneous Pipelined Processing elements for DSP applications", Elsevier Computers and Electrical Engineering Journal, 30, 2004, pp 543-562.

17. Awni Itradat, M. O. Ahmad, and Ali Shatnawi, "Scheduling of DSP Algorithms onto Heterogeneous Multiprocessors with Inter-Processor Communication", International IEEE Northeast Workshop on Circuits and Systems June 2005, Québec City, Canada, paper PS1-7.

18. Awni Itradat, M. O. Ahmad, and Ali Shatnawi, "Incorporating of Reservation Stations into the Scheduling of DSP Graphs onto Heterogeneous Multiprocessor Systems", IEEE International Midwest Symposium on Circuits & Systems, Cincinnati, Ohio, Aug 7 - 10, 2005.

19. Ali Shatnawi and M.F. Shatnawi, "Improving Branch Predictors by Combining with Predicated Execution", Journal of Electrical Engineering, Vol. 56, No. 11-12, pp 290-297, 2005.

20. Awni Itradat, M.O. Ahmad and Ali Shatnawi, "A Delay-Optimal Static Scheduling of DSP Applications Mapped onto Multiprocessor Architectures", International Symposium on Parallel Computing in Electrical Engineering, 13-17 September 2006, Bialystok, Poland.

21. O. Al-Jarrah, A. Shatnawi, and A. Halawani, "Recognition Of Gestures In Arabic Sign Language Using Neural Networks," IASTED International Conference on Artificial Intelligence and Soft Computing (ASC), Palma de Mallorca, Spain,2006

22. Awni Itradat, M.O. Ahmad and Ali Shatnawi, ", A Processor Allocation of DSP Applications onto Heterogeneous Multiprocessor Architectures", Canadian Conference on Electrical and Computer Engineering, April 2007, pp 944 – 947 Vancouver, Canada.

23. Awni Itradat, M.O. Ahmad and Ali Shatnawi, ",Dynamically Reconfigurable Adaptable MultiModule Based Synthesis of DSP Data Flow Graphs", Canadian Conference on Electrical and Computer Engineering, April 2007, pp 1515 – 1518 Vancouver, Canada.

24. Awni Itradat, M.O. Ahmad and Ali Shatnawi, "Architectural Synthesis of DSP Applications with Dynamically Reconfigurable Functional Units", IEEE International Symposium on Circuits and Systems, New Orleans, USA, pp1037-1040, May 27-30, 2007.

	25. Awni Itradat, M.O. Ahmad and Ali Shatnawi, "Minimization of I/O Delay in the Architectural Synthesis of DSP Data Flow Graphs with inter-processor communication delay", IEEE Symposium on Circuits and Systems, Seattle, USA, May 18-21, 2008.
	26. Awni Itradat, M.O. Ahmad and Ali Shatnawi," Delay and Sampling-Rate Aware Architectural Synthesis in Presence of Communication Overhead" , Joint International IEEE Northeast Workshop on Circuits and Systems and TAISA Conference, 2008. NEWCAS-TAISA 2008, June 2008, pp 323 – 326,Montreal, Canada.
	27. Ali Shatnawi and Mufleh Shatnawi, "A Pipelined Architecture for a High Speed Digital Oscillator", IEEE International Conference on Signal Processing, Beijing, China, Oct. 26-29, 2008.
	28. Khalil M. Yousef, Jamal N. Al-Karaki and Ali M. Shatnawi, "Intelligent Traffic Light Flow Control System Using Wireless Sensors Networks", Journal of Information Science and Engineering, Vol. 26 No. 3, May 2010, pp 753-768.
	29. Ali shatnawi and Mufleh Shatnawi, "High Speed Digital Oscillator Implementations Based on Advanced Arithmetic and Architecture Techniques", Circuits and Systems, 2013, 4, 252-263.
	30. Ahmad Al Badawi, Ali Shatnawi, "Static Scheduling of Directed Acyclic Data Flow Graphs onto multiprocessors using particle swarm optimization, Computers & Operations Research 40 (2013) 2322–2328.
	31. Ali Shatnawi and Yathrip Alzahouri "A Multi-Pass Algorithm for Sorting Extremely Large Data Files", International Conference on Information and Communication Systems, Amman, Jordan, April, 2015.
	32. Ali Shatnawi, Hadi Al-Qahtani and Mohammad Fraiwan, "Exam Scheduling: A Case Study" The 9th International Conference on Advanced Computational Intelligence (ICACI 2017), 4-6 Feb, 2017, Doha, Qatar.
	33. M.Z. Ali, N.H. Awad, P.N. Suganthan, Ali Shatnawi and R.G. Reynolds, "An improved Class of Real-Coded Genetic Algorithms for Numerical Optimization", Journal Neurocomputing, Elsevier, vol. 275, 2018, pp 155-166.
	34. N.H. Awad, M.Z. Ali, P.N. Suganthan, R.G. Reynolds and Ali Shatnawi, "A novel differential crossover strategy based on covariance matrix learning with Euclidean neighborhood for solving real-world problems", IEEE Congress on Evolutionary Computation (CEC), 2017, pp 380-386.

	35. S. Abdel-Hafeez and Ali Shatnawi, "High-Speed Low-Power Flash ADC Architecture Using Switched-Capacitor Positive Feedback Comparator and Parallel Single-Gate Encoder", Journal Circuits, Systems and Signal Processing, Online Sept. 2017.
	36. Qusai Abuein, Ali Shatnawi and Huda Al-Sheyab, "Trusted Recommendation System Based On Level of Trust (TRS_LoT), The International Conference on Engineering & Technology, ICET'2017, August 21-23, 2017 Antalya, Turkey.
	37. A. Al-Tamimi, Ali Shatnawi and E. Bani-Issa, "Arabic Sentiments Analysis of YouTube Comments", IEEE Jordan Conference on Applied Electrical Engineering and Computing Technologies (AEECT 2017), 10-12 Oct 2017, Amman, Jordan.
	38. Ali Shatnawi and Mohammad Alsaedeen, "Reducing the Second-Level Cache Conflict Misses Using a Set Folding Technique", The Journal of Supercomputing, Volume 74, Issue 2, 2018, pp 970–993.
	39. Ali Shatnawi, G. Al-Bdour, R. Al-Qurran and M. Al-Ayyoub, "A comparative study of open source deep learning frameworks," *2018 9th International Conference on Information and Communication Systems (ICICS)*, Irbid, Jordan, April 2018, pp. 72-77.
	40. Ali Shatnawi, Bushra AlHajouj and Moath Jarrah, "A New Multi-threaded and Interleaving Approach to Enhance String Matching for Intrusion Detection Systems", International Journal of Communication Networks and Information Security, Vol. 10, No. 2, August 2018.
	41. Khalil Ahmad, Ali Shatnawi and Mohammad Latayfeh, "Intelligent Traffic Light Scheduling Technique Using Calendar-Based History Information", Journal Future Generation Computer Systems, 19 (2019), 124-135.
	42. Ali Shatnawi, Y. AlZahouri, Y., M. A. Shehab, Y. Jararweh and M. Al-Ayyoub, "Toward a new approach for sorting extremely large data files in the big data era", Cluster Computing (2018/10), https://doi.org/10.1007/s10586-018-2860-1.
	43. Raffi AlQurran, Mahmoud Al Ayyoub and Ali Shatnawi, "Plant Classification in the wild: A Transfer Learning Approach", 2018 - 19th International Arab Conference on Information Technology, Rmeileh, Lebanon, Nov. 2018.
	44. Ali Shatnawi, Osama Al-Khaleel and Hala Alzoubi, "A DFG Processor Implementation for Digital Signal Processing Applications", 8th International Conference on Advanced Computer Science and Information Technology (ICAIT 2019), March 30-31, 2019, Zurich, Switzerland.

45. G. Al-Bdour, R. Al-Qurran, M Al-Ayyoub and Ali Shatnawi "Benchmarking Open Source Deep Learning Frameworks", International Journal of Electrical and Computer Engineering (IJECE), Vol. 10, No. 5, October 2020, pp. 5479_5486.

46. Esra'a Bani Issa, Abdelkarim Al-Tamimi, Ali Shatnawi, "Sentiment Analysis of Arabic YouTube Comments", Book, Lambert Academic Publishing, ISBN-13: 978-620-2-79955-3. 28/8/2020.

47. Jehad Ghanim and Ali Shatnawi, "Determine the Interconnection of a Hardware Implementation for DSP Applications", International Conference on Computer and Information Sciences (ICCIS), Oct. 13-15,2020, Saudi Arabia.

48. Hala Alzoubi, Osama Al-Khaleel and Ali Shatnawi, "FPGA Implementation of Data Flow Graphs for Digital Signal Processing Applications", International Journal of Communication Networks and Information Security (IJCNIS), " to appear in April 2021.