

Publication list - Dr. Iyad T. Abu Doush

Publications

- *Ph.D. Dissertation*
 - Iyad Abu Doush (2009). Non-Visual Navigation of Excel™ Spreadsheet, New Mexico State University, Computer Science Department, Las Cruces, USA.
- *Thomson ISI Journals*
 1. Mohammed Azmi Al-Betar; Mohammed A. Awadallah; Sharif Naser Makhadmeh; **Iyad Abu Doush**; Raed Abu Zitar; Samah Alshathri, Mohamed Abd Elaziz. A Hybrid Harris Hawks Optimizer for Economic Load Dispatch Problems. Alexandria Engineering Journal (**Impact factor 6.626**) Accepted
 2. Mohammed Azmi Al-Betar; Mohammed A. Awadallah; **Iyad Abu Doush**; Osama Ahmad Alomari; Ammar Kamal Abasi; Sharif Naser Makhadmeh; Zaid Abdi Alkareem Alyasseri. Boosting the Training of Neural Networks Through Hybrid Metaheuristics. Cluster Computing (**Impact factor 2.303**) Accepted.
 3. **Iyad Abu Doush**, Ahmad Al-Jarrah, Nancy Alajarmeh, Mrim Alnfiai. Learning Features and Accessibility Limitations of Video Conferencing Applications : are people with disabilities left behind. Universal Access in the Information Society (**Impact factor 2.629**) Accepted.
 4. Zaid Abdi Alkareem Alyasseri; Osama Ahmad Alomari; Mohammed Azmi albetar; Sharif Naser Makhadmeh; **Iyad Abu Doush**; Mohammed Awadallah; Ammar Kamal Abasi; Ashraf Elnagar. A Recent Advances of Bat-inspired Algorithm, Its Versions and Applications. Neural Computing and Applications (**Impact factor 5.102**) Accepted.
 5. **Iyad Abu Doush**, Mohammed Azmi Al-Betar; Mohammed A. Awadallah, Zaid Abdi Alkareem Alyasseri, Sharif Naser Makhadmeh, and Mohammed El-Abd (2022). Island Neighboring Heuristics Harmony Search Algorithm for Flow Shop Scheduling with Blocking. Swarm and evolutionary computation, 74, 101127, DOI: <https://doi.org/10.1016/j.swevo.2022.101127> (**Impact factor 10.267**).
 6. Sharif Makhadmeh, Ammar Kamal Abasi, Mohammed Azmi Al-Betar, Mohammed A. Awadallah, **Iyad Abu Doush**, Zaid Abdi Alkareem Alyasseri, Osama Ahmad Alomari (2022). A Novel Link-based Multi-objective Grey Wolf Optimizer for Appliances Energy Scheduling Problem. Cluster Computing, DOI: <https://doi.org/10.1007/s10586-022-03675-3> (**Impact factor 1.809**).
 7. Mohammed A. Awadallah, Mohammed Azmi Al-Betar; Malik Shehadeh Braik; Abdelaziz I. Hammouri; **Iyad Abu Doush**; Raed Abu Zitar (2022). An Enhanced Binary Rat Swarm Optimizer based on Local-best Concepts of PSO and Collaborative Crossover Operators for Feature Selection. Computers in Biology and Medicine, DOI: <https://doi.org/10.1016/j.combiomed.2022.105675> (**Impact factor 4.589**).
 8. Zainab Almeraj, **Iyad Abu Doush**, Dari Alhuwail, Shok Shama, Ahmed Albahar, and Mohammad Al-Ramahi. Access and Experiences of Arabic Native Speakers with Disabilities on Social Media During and After the World Pandemic. International Journal of Human-Computer Interaction (Accepted) (**Impact factor 3.353**).
 9. Mohammed A. Awadallah, Mohammed Azmi Al-Betar, **Iyad Abu Doush**, Sharif Naser Makhadmeh, Zaid Abdi Alkareem Alyasseri, Ammar Kamal Abasi, Osama Ahmad Alomari

- (2021). Cellular Crow Search Algorithm with Topological Neighbourhood shapes for optimization. Expert Systems with Applications (Accepted) (**Impact factor 6.954**).
10. Zaid Abdi Alkareem Alyasseri, Mohammed Al-Betar, **Iyad Abu Doush**, Mohammed Awadallah, Ammar Kamal Abasi, Osama Ahmad Alomari, Sharif Naser Makhadmeh, Raed Abu Zitar, Karrar Hameed Abdulkareem, Afzan Adam (2021). *Machine Learning and Deep Learning Approaches for COVID-19 Diagnose: A Review*. Expert Systems, DOI: <https://doi.org/10.1111/exsy.12759> (**Impact factor 1.546**).
 11. Raed Abu Zitar, Mohammed Azmi Al-Betar, Mohammed A. Awadallah, **Iyad Abu-Doush**, Khaled Assaleh (2021). *An intensive and comprehensive overview of JAYA algorithm, its versions and applications*. Archives of Computational Methods in Engineering, DOI: <https://doi.org/10.1007/s11831-021-09585-8> (**Impact factor 6.730**).
 12. Noura Al-Ghurair, Ghada Alnaqi, and **Iyad Abu Doush** (2020). *An Augmentative and Alternative Communication Tablet Application for Children with Language Impairment*, Kuwait Journal of Science, 9 (2), 106-123 (**Impact factor 0.519**).
 13. Osama Ahmad Alomari, Sharif Naser Makhadmeh, Mohammed Azmi Al-Betar, Zaid Abdi Alkareem Alyasseri, **Iyad Abu Doush**, Ammar Kamal Abasi, Mohammed A. Awadallah, Raed Abu Zitar. *Gene Selection for Microarray Data Classification based on Grey Wolf Optimizer Enhanced with TRIZ-inspired Operators*. Knowledge-Based Systems, 223 (107034) (**Impact factor 5.921**).
 14. **Iyad Abu Doush**, Mohammed El-Abd, Abdelaziz I. Hammouri, Mohammad Qasem Bataineh. *The Effect of Different Stopping Criteria on Multi-Objective Optimization Algorithms* (2021), Neural Computing and Applications, DOI: <https://doi.org/10.1007/s00521-021-05805-1> (**Impact factor 4.774**).
 15. Mohammed Azmi Al-Betar, Zaid AbdiAlkareem Alyasseri, Mohammed A. Awadallah, **Iyad Abu-Doush**. *Coronavirus Herd Immunity Optimizer*. Neural Computing and Applications DOI: <https://doi.org/10.1007/s00521-020-05296-6> (**Impact factor 4.774**).
 16. Mohammed Azmi Al-Betar, Abdelaziz I. Hammouri, Mohammed A. Awadallah, **Iyad Abu Doush** (2020). *Binary B-Hill Climbing Optimizer with S-shape Transfer Function for Feature Selection*. Journal of Ambient Intelligence and Humanized Computing, DOI: <https://doi.org/10.1007/s12652-020-02484-z> (**Impact Factor 1.598**).
 17. Abdelaziz I. Hammouri, Majdi Mafarja, Mohammed Azmi Al-Betar, Mohammed A. Awadallah, **Iyad Abu-Doush** (2020). *An Improved Dragonfly Algorithm for Feature Selection*. Knowledge-Based Systems, 203 (106131) (**Impact Factor 5.358**).
 18. Mohammed A. Awadallah, Mohammed Azmi Al-Betar, Asaju La'aro Bolaji, **Iyad Abu Doush**, Abdelaziz I. Hammouri, Majdi Mafarja (2020). Island Artificial Bee Colony for Global Optimization. Soft Computing, 24, 13461–13487, DOI: <https://doi.org/10.1007/s00500-020-04760-8> (**Impact Factor 2.784**)
 19. **Iyad Abu Doush** and Ayah Sawalha (2020). *Automatic music composition using genetic algorithm and neural networks*. Malaysian Journal of Computer Science, 33 (1), 35-51 (**Impact Factor 0.60**).
 20. Mustafa Hammad, Mohammad Alnabhan, **Iyad Abu Doush**, Gheed Alsalem, Fatima Al-Alem, Mouhammd Al-awadi (2020). *Evaluating Usability and Content Accessibility for e-Learning Websites in the Middle East*. International Journal of Technology and Human Interaction 16 (1), 54-62.
 21. **Iyad Abu-Doush**, Mohammed Azmi Al-Betar, Mohammed A. Awadallah, Eugene Santos, Abdelaziz I. Hammouri, Majdi Mafarjeh, and Zainab AlMeraj (2019). *Flow Shop Scheduling with Blocking using Modified Harmony Search Algorithm with Neighboring Heuristics Methods*. Applied Soft Computing, <https://doi.org/10.1016/j.asoc.2019.105861> , 85 (**Impact Factor 4.87**).

22. Mohammed Azmi Al-Betar, Mohammed A. Awadallah, **Iyad Abu Doush**, Abdelaziz I. Hammouri, Majdi Mafarjeh, and Zaid AbdiAlkareem Alyasseri (2019). *Island flower pollination algorithm for global optimization*. The Journal of Supercomputing, <https://doi.org/10.1007/s11227-019-02776-y> (**Impact Factor 1.532**).
23. **Iyad Abu Doush**, Faisal Alkhateeb, and Anwar Gharaibeh (2018). *A Novel Arabic OCR Post-Processing Using Rule Based and Word Context Techniques*. International Journal on Document Analysis and Recognition (IJDAR), 21(1-2), 77–89 (**Impact Factor 0.902**).
24. Mohammed Azmi Al-Betar, Mohammed A. Awadallah, **Iyad Abu Doush**, Emad Al-Sukhni, Habes AL-khraisat (2018). *A Non-convex Economic Dispatch Problem with Valve Loading Effect Using a New Modified β -Hill Climbing Local Search Algorithm*. Arabian Journal for Science and Engineering, 43(12): 7439–7456 (**Impact Factor 0.865**).
25. **Iyad Abu Doush**, Mohammed I. Al-Saleh (2017). *Can Genetic Algorithms Help Virus Writers Reshape their Creations and Avoid Detection?*. Journal of Experimental & Theoretical Artificial Intelligence, 29 (6): 1297-1310 (**Impact Factor 1.703**).
26. **Iyad Abu Doush**, Sawsan Alshatnawi, Abdel-Karim Al-Tamimi, Bushra Alhasan, Safaa Hamasha (2017). *ISAB: Integrated Indoor Navigation System for the Blind*. Interacting with Computers, 29 (2): 181-202 (**Impact Factor 1.233**).
27. Basima Hani F. Hasan , **Iyad Abu Doush**, Eslam Al Maghayreh , Faisal Alkhateeb , Mohammad Hamdan (2014). *Hybridizing Harmony Search Algorithm with Different Mutation Operators for Continuous Problems*. Applied Mathematics and Computation, 232 (C): 1166–1182. (**Impact Factor 1.317**).
28. Zakaria Al-Qudah, **Iyad Abu Doush**, Faisal Alkhateeb, Eslam Al Maghayreh, and Osama Al-Khaleel (2014) .*Utilizing Mobile Devices' Tactile Feedback for Presenting Braille Characters: An Optimized Approach for Fast Reading and Long Battery Life*. Interacting with Computers 26(1): 63-74 (**Impact Factor 1.233**).
29. Mohammed Azmi Al-Betar, Ahamad Tajudin Khader, and **Iyad Abu Doush** (2014). *Memetic Techniques for Examination Timetabling*. Annals of Operations Research Journal published by Springer 218(1): 23-50 (**Impact Factor 1.029**).
30. Mohammed Azmi Al-Betar, Ahamad Tajudin Khader, Zong Woo Geem, **Iyad Abu Doush**, and Mohammed A. Awadallah (2013). *An Analysis of Selection Methods in Memory Consideration for Harmony Search* . Applied Mathematics and Computation 219(22): 10753-10767, (**Impact Factor 1.317**).
31. **Iyad Abu Doush**, Faisal Alkhateeb, Eslam Al Maghayreh, and Mohammed Azmi Al-Betar. (2013). *The Design of RIA Accessibility Evaluation Tool*. Advances in Engineering Software, 57: 1–7, (**Impact Factor 1.092**).
32. **Iyad Abu Doush** and Enrico Pontelli (2013). *Non-visual navigation of spreadsheets: Enhancing accessibility of Microsoft Excel*. Universal Access in the Information SocietyTechnology, 12(2): 143-159 (**Impact Factor 0.333**).
33. Mohammed Azmi Al-Betar, **Iyad Abu Doush**, Ahamad Tajudin Khader, and Mohammed A. Awadallah (2012). *Novel selection schemes for harmony search*. Applied Mathematics and Computation 218 (10): 6095–6117, (**Impact Factor 1.317**).
34. **Iyad Abu Doush**, Ashraf Bany Mohammed, Emad Ali, and Mohammed Azmi Al-Betar. (2013) *Towards a More Accessible E-government in Jordan: An evaluation Study of Visually Impaired Users and Web Developers*. Behaviour & Information Technology Journal, 32(3): 273-293 (**Impact Factor 1.011**).

▪ *Refereed Journals*

a. *Published or Accepted*

1. Zaid Alyasseri, Mohammed Azmi Al-Betar, Mohammed Awadallah, Sharif Naser Makhadmeh, Ammar Kamal Abasi, **Iyad Abu Doush**, Osama Ahmad Alomari (2021). *A Hybrid Flower Pollination with p-Hill Climbing Algorithm for Global Optimization*. Journal of King Saud University - Computer and Information Sciences, DOI: <https://doi.org/10.1016/j.jksuci.2021.06.015>.
2. Faisal Alkhateeb, Ra'ed M. Al-Khatib , and **Iyad Abu Doush** (2020). *Applications and variants of nature-inspired immune search algorithm: a survey*. International Journal of Computer Applications in Technology 63 (4), 354-370.
3. **Iyad Abu Doush** and Eugene Santos (2020). *Best Polynomial Harmony Search with Best β -Hill Climbing Algorithm*. Journal of Intelligent Systems 30(1), 1-17.
4. **Iyad Abu Doush**, Wea'am Alrashdan, Mohammed Azmi Al-Betar, and Mohammed A. Awadallah (2020). *Community detection in complex networks using multi-objective bat algorithm*. International Journal of Mathematical Modelling and Numerical Optimization 10 (2), 123- 140.
5. Sawsan Alshatnawi, **Iyad Abu Doush**, and Anas Alsobeh (2019). *Personal Tour Schedule Construction using Artificial Bee Colony Optimization Algorithm for an Electronic Tourist Guide Systems*. Journal of Theoretical and Applied Information Technology 97 (17), 4565 - 4578.
6. **Iyad Abu Doush** and Zainab AlMeraj (2019). *Evaluating the Accessibility of Kuwaiti E-government Websites*. Jordanian Journal of Computers and Information Technology (JJCIT), 05 (03), 152 – 169.
7. **Iyad Abu Doush**, Sanaa Ismail Jarrah (2019). *Accessible Interface for Context Awareness in Mobile Devices for Users with Memory Impairment*. International Journal of Biomedical and Clinical Engineering (IJBCE), 8 (2), 1-30.
8. Emad Ali, **Iyad Abu Doush**, Gheed Mufied Alsalem, Wea'am Alrashdan. *Evaluating the Web Accessibility of University Online Registration System: case study Jordan* (2019). International Journal of Advanced Science and Technology (IJAST), 13 (3): 1-16.
9. **Iyad Abu Doush**, Mohammed Azmi Al-Betar, Mohammed A. Awadallah, Abdelaziz I. Hammouri, Ra'ed M. Al-Khatib, Saba ElMustafa (2018). *Harmony Search Algorithm for Patient Admission Scheduling Problem*. Journal of Intelligent Systems.DOI: <https://doi.org/10.1515/jisys-2018-0094>.
10. Gheed Mufied Alsalem and **Iyad Abu Doush** (2018). *Access education: What is needed to have accessible higher education for students with disabilities in Jordan?*. International Journal of Special Education, 33(3): 541-561.
11. **Iyad Abu Doush** and Ikdam Alhami (2018). *Evaluating the accessibility of computer laboratories, libraries, and web sites in Jordanian universities and colleges*. International Journal of Information Systems and Social Change (IJISSC), 9 (2): 44-60.
12. Raed Z. Al-Abdallah , Ameera S. Jaradat, **Iyad Abu Doush**, and Yazan A. Jaradat (2017). *A Binary Classifier Based On Firefly Algorithm*. Jordanian Journal of Computers and Information Technology 3(3):172-185.
13. Emad Al-Sukhni, Mohammed Azmi Al-Betar, Mohammed A. Awadallah, **Iyad Abu Doush** (2017). *Multiple-Reservoir Scheduling using B-Hill Climbing Algorithm*. Journal of Intelligent Systems DOI: <https://doi.org/10.1515/jisys-2017-0159>.
14. Osama Alshareet, Awni Itradt, **Iyad Abu Doush**, Ahmad Qutoum (2017). *Incorporation of ISO 25010 with Machine Learning to develop a Novel Quality in Use Prediction System (QiUPS)*. International Journal of System Assurance Engineering and Management, 9 (2): 344–353.
15. **Iyad Abu Doush**, Amal Quran, Mohammed Azmi Al-Betar, and Mohammed A. Awadallah (2017). *MAX-SAT problem using hybrid harmony search algorithm*. Journal of Intelligent Systems, 27(4).
16. Faisal Alkhateeb, **Iyad Abu Doush**, and Abdelraouf Albsoul (2017). *Arabic Optical Character Recognition Software: A Review*. Pattern Recognition and Image Analysis 27(4): 763-776.
17. **Iyad Abu Doush**, Faisal Alkhateeb, Abdelraouf Albsoul (2017). *AraDaisy: A system for automatic generation of Arabic DAISY books*. International Journal of Computer Applications in Technology, 55(4): 322-333.

18. Saba ElMustafa, Ameera Jaradat, **Iyad Abu Doush**, Nahed Mansour (2017). *Community Detection Using Intelligent WaterDrops Optimization Algorithm*. International Journal of Reasoning-based Intelligent Systems, 9 (1): 52-65.
19. **Iyad Abu Doush**, Ahmed Al-trad (2016). *Improving Post-Processing Optical Character Recognition (OCR) Documents with Arabic Language Using Spelling Error Detection and Correction*. International Journal of Reasoning-based Intelligent Systems, 8 (4): 91-103.
20. Osama Alshareet, Awni Itradat, **Iyad Abu Doush**, Ahmad Qutoum (2016). *A Novel Software Quality Prediction System Based on Incorporating ISO 9126 with Machine Learning*. Journal of Theoretical and Applied Information Technology, 94 (2): 283 - 293.
21. **Iyad Abu Doush** and Sahar AL-Btoush (2016). *Currency Recognition Using A Smartphone: Comparison Between Color SIFT AND Gray Scale SIFT Algorithms*. Journal of King Saud University - Computer and Information Sciences, 29 (4): 484-492.
22. **Iyad Abu Doush**, Faisal Alkhateeb, Abdelraouf Albsoul (2016). *What we have and what is needed, how to evaluate Arabic Speech Synthesizer?*. International Journal of Speech Technology, 19(2): 415-432.
23. **Iyad Abu Doush**, Sawsan Alshatnawi, Malek Barhoush (2015). *Non-visual Navigation Interface for Completing Tasks with a Predefined Order Using Mobile Phone*. International Journal of Mobile Network Design and Innovation, 6(1), 1 - 13.
24. Amal AbuNaser, **Iyad Abu Doush**, Nahed Mansour, and Sawsan Alshatnawi (2015). *Underwater Image Enhancement Using Particle Swarm Optimization*. Journal of Intelligent Systems, 24(1): 99-115.
25. **Iyad Abu Doush**, Basima Hani F. Hasan, Mohammed Azmi Al-Betar , Eslam Al Maghayreh, Faisal Alkhateeb , Mohammad Hamdan. (2014). *Artificial Bee Colony with Different Mutation Schemes: A comparative study*. Computer Science Journal of Moldova 22 (1): 77-98.
26. **Iyad Abu Doush**, Mohammed Azmi Al-Betar, Ahamat Tajudin Khader, and Mohammed A. Awadallah, and , Ashraf Bany Mohammed (2013). *Analysis of Takeover Time and Convergence Rate for Harmony Search with Novel Selection Methods*. International Journal of Mathematical Modelling and Numerical Optimisation, 4(4): 305-322.
27. **Iyad Abu Doush**, Faisal Alkhateeb, Eslam Al Maghayreh, Mohammed Azmi Al-Betar (2013). *Hybridizing Harmony Search Algorithm with Multi-Parent Crossover to Solve Real World Optimization Problems*. International Journal of Applied Metaheuristic Computing, 4(3): 1-14.
28. Eslam Al Maghayreh, **Iyad Abu Doush**, and Faisal Alkhateeb. (2013). *Detecting Distributed Predicates Using Genetic Algorithms*. International Journal of Intelligent Information Technologies (IJIIT), 9 (1).
29. **Iyad Abu Doush** and Sondos Al-Badarneh (2013). *Automatic Semantic Generation and Arabic Translation of Mathematical Expressions on the Web*. International Journal of Web-Based Learning and Teaching Technologies (IJWLTT) 8 (1) : 1-16.
30. Faisal Alkhateeb, Ahmed M. Manasrah, **Iyad Abu Doush**, Eslam Al Maghayreh (2012). *Connecting Mobile Users Through Mobile Social Networks*. International Journal of Interactive Mobile Technologies (iJIM) 6(4) : 4-14.
31. Rana Sawalha and **Iyad Abu Doush** (2012). *Face Recognition Using Harmony Search-Based Selected Features*. International Journal of Hybrid Information Technology 5(2) : 1-16.
32. Heider Wahsheh, **Iyad Abu Doush**, Mohammed Al-Kabi, Izzat Alsmadi, and Emad Al-Shawakfa (2012). *Using Machine Learning Algorithms to Detect Content-based Arabic Web Spam*. Journal of Information Assurance and Security, 7 (1).
33. Eslam Al Maghayreh, Samer Samarah, Faisal Alkhateeb, **Iyad Abu Doush**, Izzat Alsmadi and Ahmad Saifan (2012). *A Framework for Monitoring the Execution of Distributed Multi-agent Programs*. International Journal of Advanced Science and Technology 38(5).

34. Faisal Alkhateeb, Amal Alzubi, **Iyad Abu Doush**, Shadi Aljawarneh, and Eslam Al Maghayreh (2011). *Searching and Generating Authoring Information: A Hybrid Approach*. International Journal of Information Technology and Web Engineering 6 (3).
35. **Iyad Abu Doush**, Faisal Alkhateeb, Eslam Al Maghayreh, Izzat Alsmadi, Samer Samarah. (2011). *Annotations, Collaborative Tagging, and Searching Mathematics in E-Learning*. International Journal of Advanced Computer Science and Applications (IJACSA) 2(4) (<http://thesai.org/Publication/Archives/Volume2No4.aspx>).
36. **Iyad Abu Doush**, Enrico Pontelli, Tran Cao Son, Dominic Simon, and Ou Ma. (2010). *Multimodal Presentation of Two-dimensional Business Charts: An Investigation Using Open Office XML and Microsoft Excel*. ACM Transactions on Accessible Computing (TACCESS) 3(2).
37. Izzat Alsmadi, Faisal Alkhateeb, Eslam Al Maghayreh, Samer Samarah, and **Iyad Abu Doush**. (2010). *Effective Generation of Test Cases Using Genetic Algorithms and Optimization Theory*. Journal of Communication and Computer 7(11).

▪ ***Refereed Conference Papers***

1. Mustafa Karkour, David Liang, Amir AlAghbar and Rassim Melaab, **Iyad Abu Doush**. Fit Kit: Mobile Application with Augmented Reality for Better Shopping Experience. 8th International HCI and UX Conference in Indonesia 2022 (Accepted).
2. **Iyad Abu Doush**, Mohammed Awadallah and Mohammed Al-Betar. A Novel Essential Mutation Method for Evolutionary Algorithms. 2nd International Conference on Computing and Machine Intelligence ICMI-2022, 15-16 July, 2022 [online].
3. **Iyad Abu Doush** and Khalid Sultan. Can I learn during COVID-19: Accessibility of Arabic online supporting children teaching and learning resources. Computer Applications & Technological Solutions conference (CATS 2022). March 12 - March 14, 2022, Kuwait.
4. Ayman Kandil, Bader Al-Jumaah, and **Iyad Abu Doush**. *Enhancing User Experience of Interior Design Mobile Augmented Reality Applications*. 5th International Conference on Computer-Human Interaction Research and Applications (CHIRA), 28-29 Oct, 2021 [online].
5. Mohammed Al-Kandari, Rakan Al-Halak, Rony Hamza, Rawan Mostafa, and **Iyad Abu Doush**. Mental Balance: a Goal-Oriented Well-Being Mobile Application for Self-Monitoring. 5th International Conference on Computer-Human Interaction Research and Applications (CHIRA), 28-29 Oct, 2021 [online].
6. Zaid Alyasseri, Mohammed Albetar, Mohammed Awadallah, Shareef Makhadmeh, Ammar Abasi, Osama Alomari and **Iyad Abu Doush**. EEG Feature Fusion for Person Identification Using Efficient Machine Learning Approach. Third Palestinian International Conference on Information and Communication Technology (PICICT 2021), 28-29 Sep, 2021, Gaza, Palestine.
7. Sharif Naser Makhademeh, Mohammed Azmi Al-Betar, Ammar Kamal Abasi, Mohammed A. Awadallah, Zaid Abdi Alkareem Alyasseri, Osama Ahmad Alomari and **Iyad Abu Doush**. Wind Driven Optimization With Smart Home Battery for Power Scheduling Problem in Smart Home. Third Palestinian International Conference on Information and Communication Technology (PICICT 2021), 28-29 Sep, 2021, Gaza, Palestine.
8. Mohammed A. Awadallah, Mohammed Azmi Al-Betar and **Iyad Abu Doush** (2020). *cJAYA: Cellular JAYA algorithm*. 2020 International Conference on Promising Electronic Technologies (ICPET 2020). 16-17 Dec. 2020, Jerusalem and Gaza City, Palestine [online].
9. **Iyad Abu Doush**, Mohammed A. Awadallah, Mohammed Azmi Al-Betar (2020). *Web Accessibility of Palestinian Universities: can we access higher education information during COVID-19*. 4th International Conference on Computer-Human Interaction Research and Applications (CHIRA), 5-6 Nov, 2020 [online].
10. **Iyad Abu Doush**, Mohammed Azmi Al-Betar, Mohammed A. Awadallah, Abdelaziz I. Hammouri, Mohammed El-Abd (2020). *Island-based Modified Harmony Search Algorithm with Neighboring Heuristics Methods for FlowShop Scheduling with Blocking*. 2020 IEEE

11. **Iyad Abu Doush** and Eugene Santos (2019). *A Sensitivity Analysis for Harmony Search with Multi-Parent Crossover Algorithm*. Intelligent Systems Conference (IntelliSys) 2019, 5-6 September 2019, London, United Kingdom.
12. **Iyad Abu Doush**, Mohammad Qasem Bataineh, and Mohammed El-Abd (2019). *On Different Stopping Criteria for Multi-Objective Harmony Search Algorithms*. 3rd International Conference on Intelligent Systems, Metaheuristics & Swarm Intelligence (ISMSI 2019), 23-24 March, 2019, Male, Maldives.
13. **Iyad Abu Doush**, Faisal Alkhateeb, and Anwar Gharaibeh. *Yarmouk Arabic OCR Dataset* (2018). The 8th International Conference on Computer Science and Information Technology (CSIT 2018), July 11 – 12, 2018, Amman, Jordan.
14. **Iyad Abu Doush**, Mohammad Qasem Bataineh, and Mohammed El-Abd (2017). *The Hybrid Framework for Multi-objective Evolutionary Optimization Based On Harmony Search Algorithm*. The 2nd International Conference on Real Time Intelligent Systems (RTIS 2017), 18-20 Oct, 2017, Casablanca, Morocco.
15. **Iyad Abu Doush**, Mohammad Qasem Bataineh (2015). *Hybedrized NSGA-II and MOEA/D with Harmony Search Algorithm to Solve Multi-objective Optimization Problems*. 22nd International Conference on Neural Information Processing (ICONIP2015), Istanbul, Turkey.
16. **Iyad Abu Doush**, Faisal Alkhateeb, and Abed Al Raoof Bsoul (2014). *Semi-Automatic Generation of Arabic Digital Talking Books*. 3rd International conference on User Science and Engineering, Selangor, Malaysia.
17. Zaid El Omari, Samer khamiseh, **Iyad Abu Doush**, Eslam Al Maghayreh (2013). *Using A Mobile Phone To Control Movable Lego Robot Supported By Simple Robotic Arm*. The 6th International Conference on Information Technology (ICIT 2013), Amman, Jordan.
18. Mohammed Azmi Al-Betar, Mohammed A. Awadallah, Ahamad Tajudin Khader, Phuah Chea Woon, **Iyad Abu Doush** (2013). *A Modified Harmony Search for Office Space Allocation*. The 6th International Conference on Information Technology (ICIT 2013), Amman, Jordan.
19. **Iyad Abu Doush** (2012). *Harmony Search with Multi-Parent Crossover for Solving IEEE-CEC2011 Competition Problems*. 19th International Conference on Neural Information Processing (ICONIP2012), Doha, Qatar.
20. Zakaria Al-Qudah, **Iyad Abu Doush**, Faisal Alkhateeb, Eslam Al Maghayreh, and Osama Al-Khaleel (2011). *Reading Braille on Mobile Phones: A Fast Method with Low Battery Power Consumption*. 2nd International conference on User Science and Engineering, Selangor, Malaysia.
21. Eslam Al Maghayreh, **Iyad Abu Doush**, Faisal Alkhateeb, and Shadi Aljawarneh (2011). *A Tool For Monitoring And Tracing Multi-Agent Applications*. The 24th Canadian Conference on Electrical and Computer Engineering, IEEE Canada, Ontario, Canada.
22. Hani bani Salameh, Clinton Jeffery, and **Iyad Abu Doush** (2011). *Introducing Social Development Environments*. The 2nd International Conference on Information and Communication Systems (ICICS 2011). Irbid, Jordan.
23. Jafar Al-Gharaibeh, Clinton Jeffery, and **Iyad Abu Doush** (2011). *High Level 3D Object Selection for the UNICON Language*. The 2nd International Conference on Information and Communication Systems (ICICS 2011). Irbid, Jordan. **(Awarded best student paper)**
24. Faisal Alkhateeb, Amal Alzubi, **Iyad Abu Doush**, Shadi Aljawarneh, and Eslam Al Maghayreh (2010). *Extracting Authoring Information Based on Keywords and Semantic Search*. The International Conference on Intelligent Semantic Web – Services and Applications (ISWSA 2010). Amman, Jordan.
25. **Iyad Abu Doush**, Faisal Alkhateeb, and Eslam Al Maghayreh (2010). *Towards Meaningful Mathematical Expressions in E-Learning*. The International Conference on Intelligent Semantic Web – Services and Applications (ISWSA 2010). Amman, Jordan.

26. Iyad Abu Doush and Enrico Pontelli (2010). *Detecting and Recognizing Tables in Spreadsheets*. International Workshop on Document Analysis Systems (DAS). Boston, MA, USA.
27. Iyad Abu Doush and Enrico Pontelli (2010). *Integrating Semantic Web and Folksonomies to Improve E-learning Accessibility*. Proceedings Young Researchers, International Conference on Computers Helping People with Special Needs (ICCHP). Vienna University of Technology, Vienna, Austria
28. Iyad Abu Doush and Enrico Pontelli (2010). *Non-Visual Navigation of Tables in Spreadsheets*. Proceedings Young Researchers, International Conference on Computers Helping People with Special Needs (ICCHP). Vienna University of Technology, Vienna, Austria
29. Iyad Abu Doush, Enrico Pontelli, Tran Cao Son, Dominic Simon, and Ou Ma (2009). *Making Microsoft Excel™ Accessible: Multimodal Presentation of Charts*. Proceedings Eleventh International ACM SIGACCESS Conference on Computers and Accessibility, Pittsburg, PA, USA.
30. Iyad Abu Doush and Enrico Pontelli (2009). *Building a Programmable Architecture for Non-Visual Navigation of Mathematics: using rules for guiding presentation and switching between modalities*. Proceedings Human Computer Interaction International Conference (HCI International). Town and Country Resort & Convention Center, San Diego, CA, USA.
31. Hani bani Salameh, Clinton Jeffery, Ziad al Sharif, Iyad abu Doush (2008). *Integrating Collaborative Program Development and Debugging within a Virtual Environment*. Collaboration Researchers International Workshop on Groupware (CRIWG). University of Nebraska, Omaha, Nebraska, USA.
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- Rama Mangalagiri, Iyad Abu Doush, Ajay Gaddam, Jafar Al-Ghraibeh, and Clinton Jeffery (2007) *Developing a Virtual Whiteboard for the VIEW Virtual Environment*. Technical Report.

- ***Published Research Datasets***

- Arabic OCR Dataset (9000 images)

https://www.researchgate.net/publication/326610140_Yarmouk_OCR_Dataset

<https://www.kaggle.com/eyadwin/yarmouk-ocr-dataset>

- Jordanian Currency Dataset (300 images)

<https://drive.google.com/open?id=1VNXScqZB0dD0LdTGMZpZIGde9pbZpqgA>

- ***Books***

- I. **Book Chapter**

- 1 Fatma Hussain, Issam Damaj, and **Iyad Abu Doush** (2020). ChildPOPS: Child Pocket Monitoring and Protection System. Book Title: Smart Technologies and Smart Cities: Advances and Recent Trends (pp. 39-56), Springer.



- 2 **Iyad Abu Doush**, Issam Damaj, Mohammed Azmi Al-Betar, Mohammed A. Awadallah, Ra'ed M. Al-khatib, Alaa Eddin Alchalabi, Asaju L. Bolaji (2020). *A Survey on Accessible Context-Aware Systems*. Book Title: Technological Trends in Improved Mobility of the Visually Impaired (pp. 29-63), Springer.



- 3 **Iyad Abu Doush** (2014). *Web Accessibility for Persons with Motor Limitations*, Book Title: Assistive Technologies, Disability Informatics and Computer Access for Motor Limitations, Editor: Georgios Kouroupetroglou, IGI Global (DOI: 10.4018/978-1-4666-4442-7.ch007).



II. Published Book

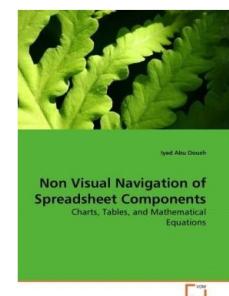
- 1 **Iyad Abu Doush** (2020). تعلم من خلال التطبيق: خوارزميات تعلم الآلة. ISBN: 9781785825040, Leanpub.



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III. Edited Book

- Faisal Alkhateeb, Eslam Al Maghayreh and Iyad Abu Doush (2011). *Multi-Agent Systems - Modeling, Control, Programming, Simulations and Applications*, ISBN 978-953-307-568-6, INTECH open access publisher (<http://www.intechopen.com/books/show/title/multi-agent-systems-modeling-control-programming-simulations-and-applications>).

