SHARIF NASER MAKHADMEH

Researcher/Teacher/Lecturer/ Programmer

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SKILLS

- MATLAB
- R Programming Language
- Java Programming Language
- Android Programing
- C + +, Object Oriented and Data Structure
- Unity and C#
- Python

LANGUAGES

English
Full Professional Proficiency

Arabic
Native or Bilingual Proficiency

Malay
Limited Working Proficiency

I have a Ph.D. in artificial intelligence and software engineering/ computer sciences, highly competent IT professional with a proven track record in researching, teaching and learning, supervising, developing, and programming. I have strong technical skills as well as excellent interpersonal skills, enabling me to interact with a wide range of other people (students and clients). I taught several courses for two educational level students (undergraduate and postgraduate). Moreover, I had developed several methods to solve different problems using optimization algorithms, such as optimizing airport operations, smart grid and smart home scheduling problem, text document clustering problem, and authentication problem. I have a good research publication in several filed, such as smart home scheduling, text document clustering, and EEG authentication.

EDUCATION

Ph.D. in Artificial Intelligence and Software Engineering
Universiti Sains Malaysia (USM)/ Malaysia, Penang
2017 - 2020

MSc. in Information Technology (IT)
Universiti Utara Malaysia (UUM)/ Malaysia, Kedah
2013 - 2015

BSc. in Computer Sciences (CS)
Yarmouk University (YU)/ Jordan, Irbid
2008 - 2013

WORK EXPERIENCE

Ajman University/ Adjunct Research Associate
01/Jan/2021 – Present

1. Engaging in joint and collaborative research with the members of the Artificial Intelligence Research Center.
2. Producing high-quality scholarly output related to the research activities of the Artificial Intelligence Research Center.
3. Providing input in developing the equipment and infrastructure of the Artificial Intelligence Research Center.
4. Mentoring Ajman University students and research assistants affiliated with the Artificial Intelligence Research Center.

INTERESTS

- Artificial Intelligence (AI)
- Optimization Algorithms
- Smart Home and Smart Grid
- Electroencephalogram (EEG)
- Clustering
- Big Data
- Machine Learning
- Deep Learning

EditSprings/ Academic Editor and Reviewer
01/Nov/2020 – Present

1. Revising the manuscript in terms of academic logicality, content organization, results analysis, and language.
2. Reorganizing structure of the manuscripts; correct errors of grammar, usage, spelling, punctuation, and other mechanics of style; clarifying meaning, eliminating jargon, polishing language and sentences, and other non-mechanical line-by-line editing.
3. Journal recommendation.
4. Manuscript assessing as follow:
    a. Assess the significance in terms of theoretical research or application.
    b. Assess the novelty in terms of new research method, new technology, new theory, new discovery, etc.
    c. Assess whether the research is systematic or scientifically designed and performed.
    d. Assess the preciseness.
    e. Assess the language usage in terms of grammar, punctuation, spelling, readability.

Jordan University of Science and Technology (JUST)/ Part-time Lecturer
01/Oct/2020 – Present
Teaching several courses for undergraduate students using various software, such as Repl online compiler and Path2Code, to improve the interactions with students and deliver knowledge to them in the best ways.

Braintech Company/ Software Engineer and Unity Developer
07/Nov/2019 – 07/April/2020

1. Developing software for brain enhancement.
2. Developing games using Unity for improving the brain capabilities.

Universiti Sains Malaysia (USM)/ Teacher assistant
01/April/2017 – 01/June/2019
Generally, teachers introduce new material to students, and teacher assistants help reinforce the lessons by working with students in solving tutorials using software and tools, as shown in the table below.

No.	Course Name	Educational Level	Software
1.	Discrete Structures	Undergraduate	----
2.	Logic and Application	Undergraduate	----
3.	Multimodal Information Retrieval	Postgraduate	MATLAB
4.	Principles and Practices of Data Science and Analytics	Postgraduate	R programming language

International School of Choueifat/ Administrative Employee (Supervisor)
13/Aug/2015 –15/Dec/2016
Administrative Employee (Supervisor) description:

1. Course coordinator.
2. Educational supervision and follow-up students.
3. Set a weekly meeting with the director, AQC, and SLC to discuss the week's offenses & disciplinary issues, and immediately take an action plan.
4. Teachers/staff Infractions: (Report and record the teacher infractions).

Freelance Teacher/ Java Programming Language
15/March/2013 – 01/Jan/2015
Teaching Java programming language for undergraduate and postgraduate students at University Utara Malaysia.

TRAINING COURSES

1. Training Course in Java programming.
2. Training Course in Android programming.
3. Training Course in Oracle programming.
4. Training Course in MATLAB.
5. Training Course in R programming.
6. Training Course in Unity.
7. Training Course in C#.

PROJECTS

Brain Control Interface Using Virtual Reality

1. MATLAB programming was used in this project.
2. The main objective of this project is to remotely control drone operation using human signals, namely electroencephalogram (EEG).
3. The Virtual Reality headset used for data recording using a Mindata chip and Arduino board.

Brain Games Using Unity

1. Unity and C# were used in this project.
2. The main objective of this project is to create a collection of games that help users to improve their brain operations, such as memory and speed thinking.
3. The project usually suggests to users some games and levels to be played based on their results in the played games.
4. The project provides full analysis and results to users for the played games.

A Multi-objective Antlion Optimization Algorithm for Power Scheduling Problem in a Smart Home Using Smart Battery

1. MATLAB programming was used in this project.
2. The main objective of this project is to schedule appliances in a smart home using home battery and optimization algorithm, known as Antlion Optimization Algorithm.

Mobile-Base Mathematical and Statistical Package

1. Java Programing Language and Android Programming Language were used in this project.
2. The main objective of this project is to help the students in the statistical calculation operations.
3. The statistical calculation operations that provided by this project are Scientific Calculator, Statistical Calculator, Currency Converter related to a database on Jordan Central Bank, Cartesian drawing some mathematical equations.

The Development of Mobile Application for Academic Services in UUM

1. Java Programing Language and Android Programming Language were used in this project.
2. The main objective of this project is to enable the students and lecturers to interact with each other directly and to remove the communication gap between them.
3. The lecturers can upload announcements, courses, and quizzes to their students in the same class. In addition, the lecturers can make chatting conversation in a chat room with their students. The lecturers and students can receive announcements from the university.

JOB DESCRIPTION

I can carry out the followings job responsibilities:

- **Researcher:**
  - I have the ability to prepare a high-quality research on various topics and solve several problems, particularly in the optimization field, as shown in the List of Publication Section.
- **Teaching and Learning:**
  - I have the ability to teach several courses for two educational level students (undergraduate and postgraduate) as mentioned in the experience section.
- **Methods Developing:**
  - I have the ability to develop methods for solving different optimization problems such as airport operations problem, scheduling problem, clustering problem, authentication problem, and problems with big data, using several optimization algorithm, including Genetic algorithm, Particle swarm optimization algorithm, grey wolf optimizer, min-conflict algorithm, wind-driven optimization algorithm, flower pollination algorithm, multiverse optimization algorithm.
  - I can develop the methods mentioned above using different software, including MATLAB, R programming language, Java Programming Language, C + +, and Object-Oriented.
- **Mobile Applications:**
  - I can develop several types of mobile applications using Java Programming Language, Android Programing.

I have the capability to deliver an excellent job on time and hard worker and fast learner in any job assignments.

REFERENCES

Assoc. Prof. Dr. Mohammed Azmi Al-betar,
Head of research center (Ajman University)
m.albetar@ajman.ac.ae +971589993748

Dr. Zaid Abdi Alkareem Alyasseri
Lecturer and Researcher (Universiti Kebangsaan Malaysia and University of Kufa)
zaid.alyasseri@uokufa.edu.iq +601133833965

Dr. Osama Ahmad Alomari
Assistant Professor (Istanbul Gelisim University, Turkey)
oalomari@gelisim.edu.tr +905369948716

LIST OF PUBLICATIONS

- **Book Chapter**

[1] Abasi, A. K., Khader, A. T., Al-Betar, M. A., Naim, S. , **Makhadmeh, S. N.**, Alyasseri. (2019). A Novel Hybrid Salp Swarm Algorithm with b-Hill Climbing for Text Documents Clustering. *In Evolutionary Data Clustering: Algorithms*, and Applications.

- **Journals**

[1] **Makhadmeh, S. N.**, et al. " Optimization methods for power scheduling problems in smart home: Survey." *Renewable and Sustainable Energy Reviews* (2019): 1-15.

[2] **Makhadmeh, S. N.**, et al. "Multi-objective power scheduling problem in smart homes using grey wolf optimiser." *Journal of Ambient Intelligence and Humanized Computing* (2018): 1-25.

[3] **Makhadmeh, S. N.**, Khader, A. T., Al-Betar, M. A., Naim, S., Abasi, A. K., & Alyasseri, Z. A. A. (2020). A Novel Hybrid Grey Wolf Optimizer With Min-conflict Algorithm for Power Scheduling Problem in a Smart Home. Swarm and Evolutionary Computation, 100793.

[4] **Makhadmeh, S. N.**, Khader, A. T., Al-Betar, M. A., Naim, S., Alyasseri, Z. A. A., Abasi, A. K. Smart Home Battery for Multi-objective Power Scheduling Problem in a Smart Home Using Grey Wolf Optimizer. *Renewable and Sustainable Energy Reviews*. (Under Review).

[5] **Makhadmeh, S. N.**, Khader, A. T., Al-Betar, M. A., Naim, S., Alyasseri, Z. A. A., Abasi, A. K. A Multi-objective Antlion Optimization Algorithm for Power Scheduling Problem in a Smart Home Using Smart Battery. *NEURAL COMPUTING & APPLICATIONS.* (Under Review).

[6] Alyasseri, Z. A. A., Khader, A. T., Al-Betar, M. A., Papa, J. P., Alomari, O. A., **Makhadmeh, S. N.** (2018). Classification of eeg mental tasks using multiobjective flower pollination algorithm for person identification. *International Journal of Integrated Engineering*, 10(7).

[7] Abasi, A. K., Khader, A. T., Al-Betar, M. A., Naim, S., **Makhadmeh, S. N.**, Alyasseri, Z. A. A. (2020). Link-based multi-verse optimizer for text documents clustering. *Applied Soft Computing*, 87, 106002.

[8] Alyasseri, Z. A. A., Khader, A. T., Al-Betar, M. A., Abasi, A. K., **Makhadmeh, S. N.** (2019). EEG Signals Denoising Using Optimal Wavelet Transform Hybridized With Efficient Metaheuristic Methods. *IEEE Access*, 8, 10584-10605.

[9] Abasi, A. K., Khader, A. T., Al-Betar, M. A., Naim, S., Alyasseri, Z. A. A., & **Makhadmeh, S. N**. (2020). A novel hybrid multi-verse optimizer with K-means for text documents clustering. *NEURAL COMPUTING & APPLICATIONS*.

[10] Alrosan, A., Alomoush, W., Norwawi, N., Alswaitti, M., & **Makhadmeh, S. N.** (2020). An improved artificial bee colony algorithm based on mean best-guided approach for continuous optimization problems and real brain MRI images segmentation. Neural Computing and Applications, 1-27.

[11] Abasi, A. K., Khader, A. T., Al-Betar, M. A., Naim, S., Alyasseri, Z. A. A., & **Makhadmeh, S. N**. (2020). A Novel Ensemble Statistical Topic Extraction Method for Scientific Publications based on Optimization Clustering. *Multimedia Tools and Applications*.

[12] Abasi, A. K., Khader, A. T., Al-Betar, M. A., Naim, S., Alyasseri, Z. A. A., & **Makhadmeh, S. N**. (2020). An Ensemble Topic Extraction Approach based on Optimization Clusters using Hybrid Multi-Verse Optimizer for Scientific Publications. *Journal of Ambient Intelligence and Humanized Computing*.

[13] Alrosan, A., Alomoush, W., Norwawi, N., Alswaitti, M., & **Makhadmeh, S. N.** (2020). Enhanced Artificial Bee Colony Algorithm Based on Mean Best-Guided Approach for Continuous Optimization Problems and Real Brain MRI Images. Neural Computing and Applications. (Under Review).

- ## Conferences

[1] **Makhadmeh, S. N.**, Khader, A. T., Al-Betar, M. A., Naim, S., Alyasseri, Z. A. A., Abasi, A. K. (2019, April). Particle swarm optimization algorithm for power scheduling problem using smart battery. *In 2019 IEEE Jordan International Joint Conference on Electrical Engineering and Information Technology (JEEIT)* (pp. 672-677). IEEE.

[2] **Makhadmeh, S. N.**, Khader, A. T., Al-Betar, M. A., Naim, S. (2018, November). An optimal power scheduling for smart home appliances with smart battery using grey wolf optimizer. *In 2018 8th IEEE International Conference on Control System, Computing and Engineering (ICCSCE) (pp. 76-81)*. IEEE.

[3] Alyasseri, Z. A. A., Khader, A. T., Al-Betar, M. A., Papa, J. P., Alomari, O. A., **Makhadme, S. N.** (2018, July). An efficient optimization technique of eeg decomposition for user authentication system. *In 2018 2nd International Conference on BioSignal Analysis, Processing and Systems (ICBAPS)* (pp. 1-6). IEEE.

[4] Alyasseri, Z. A. A., Khadeer, A. T., Al-Betar, M. A., Abasi, A., **Makhadmeh, S.**, Ali, N. S. (2019, April). The effects of EEG feature extraction using multiwavelet decomposition for mental tasks classification. *In Proceedings of the International Conference on Information and Communication Technology* (pp.139-146).

[5] Abasi, A. K., Khader, A. T., Al-Betar, M. A., Naim, S., **Makhadmeh, S. N.**, Alyasseri, Z. A. A. (2019, April). A Text Feature Selection Technique based on Binary Multi-Verse Optimizer for Text Clustering. *In 2019 IEEE Jordan*

International Joint Conference on Electrical Engineering and Information Technology (JEEIT) (pp. 1-6). IEEE.

[6] **Makhadmeh, S. N.**, Khader, A. T., Al-Betar, M. A., Naim, S., Alyasseri, Z. A. A., & Abasi, A. K. (2019). A min-conflict algorithm for power scheduling problem in a smart home using battery. In Proceedings of the 11th National Technical Seminar on Unmanned System Technology 2019 (pp. 489-501). Springer, Singapore.

[7] Abasi, A. K., Khader, A. T., Al-Betar, M. A., Naim, S., **Makhadmeh, S. N.**, & Alyasseri, Z. A. A. (2019). An improved text feature selection for clustering using binary grey wolf optimizer. In Proceedings of the 11th National Technical Seminar on Unmanned System Technology 2019 (pp. 503-516). Springer, Singapore.

[8] Alyasseri, Z. A. A., Khader, A. T., Al-Betar, M. A., Abasi, A. K., & **Makhadmeh, S. N**. EEG Signal Denoising Using Hybridizing Method Between Wavelet Transform with Genetic Algorithm. In Proceedings of the 11th National Technical Seminar on Unmanned System Technology 2019 (pp. 449-469). Springer, Singapore.