



Murtadha Mahmood Sadkhan AL-KAABI

EDUCATION AND TRAINING

BSc. Degree in Electrical Engineering

University of Mustansyriah [2004 – 2008]

City: Baghdad

Country: Iraq

Level in EQF: EQF level 1

BSc in Electrical Engineering

MSc. Degree in Power System Engineering

National University of Science and Technology POLITEHNICA Bucharest [2015 – 2017]

City: Bucharest

Country: Romania

Field(s) of study: Engineering and engineering trades

Level in EQF: EQF level 1

Power System Engineering

Ph.D. student of Power System Engineering

National University of Science and Technology POLITEHNICA Bucharest [2020 – Current]

City: Bucharest

Country: Iraq

WORK EXPERIENCE

Electrical Engineer

Mayoralty Of Baghdad [2008 – 2011]

City: Baghdad

Country: Iraq

Al-Sadder water project, Baghdad, Iraq, I was worked in Al-Sadder Project Water as an Electrical Engineer for the project knowing, newly designed projects for water purification in Baghdad from American side. Al-Russafa water project, Baghdad, Iraq, I was worked in the Russafa water project, newly designed projects for water purification in Baghdad from the Japanese side.

Statistical Assistant

The Iraq Planning Ministry [2010 – 2011]

City: Baghdad

Country: Iraq

Data entry for the population census in Iraq

Technician in Electrical Systems

Ministry of Science and Technology [2011 – 2012]

City: Baghdad

Country: Iraq

Electrical Engineer

Electrical Systems Technician

Ministry of Education [2012 – 2022]

City: Baghdad

Country: Iraq

Electrical Engineer in School Building

Assist Lecture

University of Mustansiriyah [2019 – 2020]

City: Baghdad

Country: Iraq

Assist lecture in Power System Laboratory

Electrical Systems Technician

The General Secretariat for Council Ministries [2022 – Current]

City: Baghdad

Country: Iraq

LANGUAGE SKILLS

Mother tongue(s): **Arabic**

Other language(s):

Romanian

LISTENING B2 READING B2 WRITING B2

SPOKEN PRODUCTION B2

SPOKEN INTERACTION B2

English

LISTENING A2 READING B1 WRITING B1

SPOKEN PRODUCTION A2

SPOKEN INTERACTION A2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

COMMUNICATION AND INTERPERSONAL SKILLS

Communication and interpersonal skills

Good communication skills gained through my experience as a
Assist teacher in University and supervising Engineer on Engineering Projects

JOB-RELATED SKILLS

Job-related skills

- Expertise in power electrical systems.
- Highly experienced in modeling and analysis of electrical systems in Matlab/ m.file.
- Using programs: Windows, Microsoft Office, Visio
- Deep knowledge in Programming languages: MATLAB, Simulink, C, Visual Basic.
- Professional Programs: NEPLAN, PSPICE, ATP Program.
- Excellent laboratory practical abilities

PUBLICATIONS

Modified Artificial Bee Colony Optimization Technique with Different Objective Function of Constraints Optimal Power Flow

[2020]

M. Al-Kaabi and L. Al-Bahrani, (2020), Int. J. Intell. Eng. Syst., vol. 13, pp. 378–388.

M. Al-Kaabi and L. Al-Bahrani, (2020), "Modified Artificial Bee Colony Optimization Technique with Different Objective Function of Constraints Optimal Power Flow" International Journal of Intelligent Engineering and Systems, vol. 13, pp. 378–388.

Optimal power flow based on differential evolution optimization techniques

[2020]

L.Al-Bahrani, M.Al-Kaabi, M.Al-Saadi, V.Dumbrava,2020, Sci.Bul., Ser.C.,Vol.82,No. 1,pp.247-258.

L. Al-Bahrani, M. Al-Kaabi, M. Al-Saadi, and V. Dumbrava, (2020), "Optimal Power Flow based on Differential Evolution Optimization Technique", Sci. Bul., Ser. C Elec. Eng. and Comp. Sci., Vol. 82, No. 1, pp. 247-258.

Optimal Power Flow with Four Objective Functions using Improved Differential Evolution Algorithm: Case Study IEEE 57-bus power system

[2021]

M.Al-Kaabi, L.Al-Bahrani, V.Dumbrava and M.Eremia, 2021,Int.Conf.ENE.&ENV.(CIEM),Bucharest,pp. 1-5,

M. Al-Kaabi, L. Al-Bahrani, V. Dumbrava and M. Eremia, (2021), "Optimal Power Flow with Four Objective Functions using Improved Differential Evolution Algorithm: Case Study IEEE 57-bus power system," 2021 10th International Conference on ENERGY and ENVIRONMENT (CIEM), Bucharest, Romania, pp. 1-5, doi:10.1109/CIEM52821.2021.9614925.

Single and Multi-Objective Optimal Power Flow Based on Hunger Games Search with Pareto Concept Optimization

[2022]

Al-Kaabi, M.; Dumbrava, V.; Eremia, M., (2022), Energies 2022, 15, 8328.

Al-Kaabi, M.; Dumbrava, V.; Eremia, M. Single and Multi-Objective Optimal Power Flow Based on Hunger Games Search with Pareto Concept Optimization. Energies 2022, 15, 8328. <https://doi.org/10.3390/en15228328>

Solving Optimal Power Flow Problem Using Improved Differential Evolution Algorithm

[2022]

L. Al-Bahrani, M. Al-Kaabi, and J. Al Hasheme, Int.J.Elec.&Elecn.Eng.& Telc., vol.11, pp.146–155.

L. Al-Bahrani, M. Al-Kaabi, and J. Al Hasheme, "Solving Optimal Power Flow Problem Using Improved Differential Evolution Algorithm," *Int. J. Electr. Electron. Eng. Telecommun.*, vol. 11, no. 2, pp. 146–155, 2022.

A Slime Mould Algorithm Programming for Solving Single and Multi-Objective Optimal Power Flow Problems with Pareto Front Approach: A Case Study of the Iraqi Super Grid High Voltage

[2022]

Al-Kaabi, M.; Dumbrava, V.; Eremia, M., (2022) *Energies* 2022, 15, 7473.

Al-Kaabi, M.; Dumbrava, V.; Eremia, M. A Slime Mould Algorithm Programming for Solving Single and Multi-Objective Optimal Power Flow Problems with Pareto Front Approach: A Case Study of the Iraqi Super Grid High Voltage. *Energies* 2022, 15, 7473. <https://doi.org/10.3390/en15207473>

Improved Differential Evolution Algorithm to solve multi-objective of optimal power flow problem

[2022]

M. Al-Kaabi, J. Al Hasheme, and L. Al-Bahrani, (2022), *Arch. Electr. Eng.*, vol. 71, pp. 641-657.

M. Al-Kaabi, J. Al Hasheme, and L. Al-Bahrani, (2022), "Improved differential evolution algorithm to solve multiobjective of optimal power flow problem," *Arch. Electr. Eng.*, vol. 71, no. 3, pp. 641-657.

Optimal Power Flow Based on Grey Wolf Optimizer: Case Study Iraqi Super Grid High Voltage 400 kV

[2023]

M.AL-Kaabi,S.Salih,B.Hussein,V.Dumbrava,M.Eremia,2023, 2nd Int.Conf.Eme.Tech.Intel.Sys., pp.490–503

M. AL-Kaabi, S. Q. Salih, A. I. B. Hussein, V. Dumbrava, and M. Eremia, (2023), "Optimal Power Flow Based on Grey Wolf Optimizer: Case Study Iraqi Super Grid High Voltage 400 kV," *BT - Proc. of the 2nd Int. Conf. on Eme. Tech. and Intel. Sys.*, pp. 490–503.

Application of Harris Hawks Optimization (HHO) Based on Five Single Objective Optimal Power Flow

[2022]

M.Al-Kaabi,J.AlHasheme,V.Dumbrava,M.Eremia,2022,14th Int.Conf.Ele.Com.& Art.(ECAI),Romania,pp1-8,

M. Al-Kaabi, J. Al Hasheme, V. Dumbrava and M. Eremia, "Application of Harris Hawks Optimization (HHO) Based on Five Single Objective Optimal Power Flow," 2022 14th International Conference on Electronics, Computers and Artificial Intelligence (ECAI), Ploiesti, Romania, 2022, pp. 1-8, doi: 10.1109/ECAI54874.2022.9847456.

Grey Wolf Optimizer for solving single objective functions optimal power flow

[2023]

M.Al-Kaabi,V.Dumbrava,M.Eremia,(2023),13th Int.Sym.Adv.Top.Ele.Eng.(ATEE),Bucharest,Romania,pp. 1-5,

M. Al-Kaabi, V. Dumbrava and M. Eremia, "Grey Wolf Optimizer for solving single objective functions optimal power flow," 2023 13th International Symposium on Advanced Topics in Electrical Engineering (ATEE), Bucharest, Romania, 2023, pp. 1-5, doi: 10.1109/ATEE58038.2023.10108149.

Generation Reliability Enhancement based on Reliability Indices

[2021]

L .Al-Bahrani, W. Saeed, M. AL-KAABI, 2021 J. Phys.: Conf. Ser. 1844 012010

L T Al-Bahrani et al 2021 J. Phys.: Conf. Ser. 1844 012010, DOI 10.1088/1742-6596/1844/1/012010

Application of Harris Hawks Optimization in Single Objective Optimal Power Flow

[2023]

M. Al-Kaabi, V. Dumbrava & M. Eremia,(2023),15th Int.Conf.Ele.Comp.Art.Intel.(ECAI),Romania,pp1-6,

M. Al-Kaabi, V. Dumbrava and M. Eremia, (2023), "Application of Harris Hawks Optimization in Single Objective Optimal Power Flow," 2023 15th International Conference on Electronics, Computers and Artificial Intelligence (ECAI), Bucharest, Romania, pp. 1-6, doi: 10.1109/ECAI58194.2023.10194019.

An Overview of the Smart Grid Attributes, Architecture and Components

[2023]

Al-Kaabi,M., Al Igeb,B., Ali, S.(2023), Pro.2nd Int. Conf. Eme. Tech.& Intel Sys, vol 584. Springer

Al-Kaabi, M., Al Igeb, B.H., Ali, S.Y. (2023). An Overview of the Smart Grid Attributes, Architecture and Components. In: (eds) Proceedings of the 2nd International Conference on Emerging Technologies and Intelligent Systems. ICETIS 2022. Lecture Notes in Networks and Systems, vol 584. Springer, Cham. https://doi.org/10.1007/978-3-031-25274-7_38

Multi Objective Optimal Power Flow Problems Using Hunger Games Search Algorithm

[2023]

M.Al-Kaabi,H. ALJANABI,V.Dumbrava,M.Eremia,(2023),10th Int.Conf.ENE.&ENV.(CIEM), Romania,Accepted.

M. Al-Kaabi, Haitham ALJANABI, V. Dumbrava and M. Eremia, "AMulti Objective Optimal Power Flow Problems Using Hunger Games Search Algorithm," 2023 10th International Conference on ENERGY and ENVIRONMENT (CIEM), Bucharest, Romania, 2023, Accepted.

A Slime Mould Algorithm to Solve Multi-Objective Optimal Power Flow Problems

[2023]

M.Al-Kaabi, B. AllGEB,V.Dumbrava,M.Eremia,(2023),10th Int.Conf.ENE.&ENV.(CIEM), Romania,Accepted.

M. Al-Kaabi, Al IGEB Bahaa Hussein, V. Dumbrava and M. Eremia, "A Slime Mould Algorithm to Solve Multi-Objective Optimal Power Flow Problems," 2023 10th International Conference on ENERGY and ENVIRONMENT(CIEM), Bucharest, Romania, 2023, Accepted.
