Curriculum Vitae

Issa Ahmed Abed

*Contact Information*

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issaahmedabed@stu.edu.iq

Birth of day: 14-4-1980

Address: Engineering Technical College Basrah,

Southern Technical University, Iraq

*Education*

1- University of Basrah, Iraq, Basrah, 1998-2002.Received the B.Sc.degree in Electrical engineering as *third* on the department.

2- University of Basrah, Iraq, Basrah, 2002-2005.Received the M.Sc. degree in Electrical Engineering (Control and Computing).

3- University Tenaga Nasional, Malaysia, 2011-2014. Received the PhD degree in Engineering (Electrical Engineering-Control and Computing).

*Employment*

1) I worked as a lecturer at the laboratory of Electrical Engineering Department/College of Engineering/Basrah University for two years.

2) Also I worked as hardware and software engineer in Adiaan Company.

3) I worked in Asiacell Telecommunication Company more than one year as Intelligent Network engineer.

4) Currently, I am working in Engineering Technical College Basrah, Southern Technical University, Department of Electrical Power Technologies Engineering as Asst. Prof. for more than ten years.

5) I worked as a lecturer in Al-Qurna Technical Institute for one year.

6) I worked as a lecturer in Basrah Technical Institute for one year.

*Publications*

Journals

J1. Abduladheem A. Ali, & Easa A. Abd. (2007). Genetic-Fuzzy Inverse Controller for a Robot Arm Suitable for On Line Applications. World Academy of Science, Engineering and Technology, 9, 660-671.

J2. Abed, I. A. (2010). Finding the Best Key Stream by Using Genetic Algorithm for Image Encryption. Journal of Basrah Researches ((Sciences)), 36, 72-80.

J3. Abed, I. A., Koh, S. P., Sahari, K. S. M., Tiong, S. K., & Yap, D. F. W.(2012).Comparison between genetic algorithm and electromagnetism-like algorithm for solving inverse kinematics. World Applied Sciences Journal, 20, 946-954.

J4. Abed, I. A., Koh, S. P., Sahari, K. S. M., Tiong, S. K., & Yap, D. F. W. (2013).Task scheduling optimization for robot manipulator using electromagnetism-like algorithm and genetic algorithm. Wulfenia Journal, 20 , 2-19.

J5. Abed, I. A., Koh, S. P., Sahari, K. S. M., Tiong, S. K, & Tan, N. M. L. (2013). Optimization of task scheduling for single-robot manipulator using pendulum-like with attraction-repulsion mechanism algorithm and genetic algorithm. Australian Journal of Basic and Applied Sciences, 7, 426-445.

J6. Abed, I. A., Koh, S. P., Sahari, K. S. M., Jagadeesh, P., & Tiong, S. K. (2014). Optimization of the time of task scheduling for dual manipulators using a modified electromagnetism-like algorithm and genetic algorithm. Arab J Sci Eng, 39,6269-6285.

J7. Abed, I. A., Koh, S. P., Sahari, K. S. M., Tiong, S. K, & Tan, N. M. L. (2014). Solving the inverse kinematics for robot manipulators using modified electromagnetism-like algorithm with record to record travel. Research Journal of Applied Sciences, Engineering and Technology, 7, 3986-3994.

J8. Abed, A. M., Abed, I. A., Majdi, H. S., Al-Shamani, A. N., & Sopian, K. (2016). A new optimization approach for shell and tube heat exchangers by using electromagnetism-like algorithm (EM). Heat and Mass Transfer, 52, 2621–2634.

J9. Abed, I. A. (2015). Inverse Kinematics Solution for Robot Manipulators using Record to Record Travel Algorithm. Ciencia e Tecnica Vitivinicola, 30, 220-228.

J10. Muhsen, D. H., Ghazali, A., Khatib, T., Abed, I. A. (2015). Extraction of photovoltaic module model’s parameters using an improved hybrid differential evolution/electromagnetism-like algorithm. Solar Energy , 119, 286-297.

J11. Muhsen, D. H., Ghazali, A. B., Khatib, T., Abed, I. A., & Natsheh, E. M. (2016). Sizing of a standalone photovoltaic water pumping system using a multi-objective evolutionary algorithm. Energy, 109, 961-973.

J12. Muhsen, D. H., Ghazali, A., Khatib, T., Abed, I. A. (2015). Parameters extraction of double diode photovoltaic module’s model based on hybrid evolutionary algorithm Energy Conversion and Management, 105, 552– 561.

J13. Abed, I. A. (2016). An Improved Technique Based on Firefly Algorithm to Estimate the Parameters of the Photovoltaic Model.Iraqi Journal for Electrical and Electronic Engineering, 12 , 137-145.

J14. Muhsen, D. H., Ghazali, A. B., Khatib, T., & Abed, I. A. (2016). A comparative study of evolutionary algorithms and adapting control parameters for estimating the parameters of a single-diode photovoltaic module's model. Renewable Energy, 96, 377-389.

J15. Tan, J. D., Dahari, M., Koh, S. P., Koay, Y. Y., & Abed, I. A. (2016). An improved electromagnetism-like algorithm for numerical optimization. Theoretical Computer Science, [641](http://www.sciencedirect.com/science/journal/03043975/641/supp/C), 75-84.

J16. Tan, J. D., Dahari, M., Koh, S. P., Koay, Y. Y., & Abed, I. A. (2017). Analysis of the effect of search step size on the accuracy and convergence properties of electromagnetism-like mechanism algorithm. J. of Mult.-Valued Logic & Soft Computing, 28, 429-441.

J17. Abed, I. A. (2016). Photovoltaic parameters identification using optimization algorithm.Journal of Thi-Qar University, 12**.**

J18. Jian Ding Tan , Mahidzal Dahari , Siaw Paw Koh , Ying Ying Koay , Issa Ahmed Abed. (2017). A new experiential learning electromagnetism-like mechanism for numerical optimization , Expert Systems With Applications , [86](http://www.sciencedirect.com/science/journal/09574174/86/supp/C), 321-333.

J19. Abed, I. A. (2017). Using Firefly Optimization Method to Extract the Parameters of Photovoltaic Model System.Journal University of Kerbala,15, 280-293**.**

J20**.** Hussain A. Younis, Issa Ahmed Abed, Isra`a M. Hayder and Hameed Abdul-Kareem Younis, 2019. Adaptive Least-Significant-Bit Substitution Applied in Data Hiding Structure for RGB Image. *Journal of Engineering and Applied Sciences, 14: 3754-3760.*

J21. Al-Momin, M., Abed, I. A., & Leftah, H. A. (2019). A new approach for enhancing LSB steganography using bidirectional coding scheme. *International Journal of Electrical & Computer Engineering (2088-8708)*, *9*.

Conference

C1. Abed ,I. A., Koh, S. P., Sahari, K. S. M., Tiong , S. K., & Yap ,D. F. W.(2012). *Using electromagnetism-like algorithm in solving inverse* *kinematics problem*. In Proceedings National Graduate Conference. Kajang, Selangor, Malaysia.

C2. Abed, I. A., Sahari, K. S. M., Koh, S. P., Tiong, S. K., & Jagadeesh, P. (2013). *Using electromagnetism-like algorithm and genetic algorithm to* *optimize time of task scheduling for dual manipulators*. In IEEE Region 10 Humanitarian Technology Conference (pp.192-197). Sendai, Japan: IEEE.

C3. Abed, I. A., Koh, S. P., Sahari, K. S. M., Tiong, S. K, Abed, A. A., Younis, H. A. (2016). *Pendulum-Like Algorithm as a Local Search* *Technique*. Al-Sadeq International Conference on Multidisciplinary in IT and Communication Science and Applications (AIC-MITCSA) – IRAQ.

C4. Younis, H. A., Abed, I. A., Younis, H. A. (2016). *Multimedia Data Hiding: Three-in-One.* The fourth scientific conference of the college of science of university of Kerbala.

*Theses*

T1-Issa Ahmed Abed. "Genetic Fuzzy Based Robot Arm Controller", 2005.

T2-Issa Ahmed Abed. " Development of Pendulum-Like Algorithm and Genetic Algorithm (PA-GA) in Optimization of Inverse Kinematics and Task Scheduling for Robot Manipulators", 2014.

*Service*

Technical program committee

* First Al-Sadeq International Conference on Multidisciplinary in IT and Communication Science and Applications (IEEE), 2016.
* International Workshop on Materials Science and Mechanical Engineering, 2017.
* Second Al-Sadeq International Conference on Multidisciplinary in IT and Communication Science and Applications (IEEE), 2017.
* The 2nd International Conference on New Energy and Future Energy System.
* 2nd International Conference on Advanced Science and Engineering 2019- University of Zakho - Duhok Polytechnic University.
* 4th Scientific International Conference-Najaf (4th SICN-2019).

*Journal editorial member*

* American Journal of Applied Scientific Research.
* Control and Systems Engineering journal.

*Community engagement*

* I'm a member of the Iraqi Engineering Union.
* I’m a member of the Centre for Advanced Mechatronics and Robotics (University Tenaga Nasional, Malaysia), 2011.
* I’m a member of the Centre for System and Machine Intelligence (Automation Technology) (University Tenaga Nasional, Malaysia), 2011.
* I'm a member of IEEE, 2016.
* Graduate activity club (University Tenaga Nasional, Malaysia), 2012.
* I'm a member of Association for Computing Machinery (ACM), 2017.
* Elsevier publishing campus.
* Mathworks.
* National instruments.
* Arid.

*Reviewer*

I am a reviewer in Applied Soft Computing Journal from 2014 till now, which is an Elsevier Q1 journal; Alexandria Engineering Journal; Journal of Technology Innovations in Renewable Energy; IEEE Journal of Photovoltaics; Iraq J. Electrical and Electronic Engineering. As well as I did reviewing for the first, second, and third International Scientific Conference of Southern Technical University, the first and second Al-Sadeq International Conference on Multidisciplinary in IT and Communication Science and Applications (IEEE), 4th Scientific International Conference-Najaf, 2nd International Conference on Advanced Science and Engineering (ICOASE 2019),and The Forth Postgraduate Engineering Conference,

*Supervision*

Undergraduate students

* Twelve projects.

Postgraduate students

* One master project (Finished)
* Two master projects (Still working)

*Teaching*

* Communications and Electronic Lap., Third year, Electrical Eng. Dept.
* Communications Lap., Fourth year, Electrical Eng. Dept.
* Electric circuits lap, First year, Computer Eng. Dept. and Electrical Eng. Dept.
* Logic lap, Second year, Computer Eng. Dept.
* Electrical measurements and instruments lap., Second year, Electrical Eng. Dept.
* C++ language lap., Second year, Electrical Eng. Dept.
* Electric circuits lap., Second year, Electrical Eng. Dept.
* Digital Electronic /1st year, Basrah Technical Institute.
* Computer Applications/4th year, Environment and Pollution Dept.
* Control /4th year, Environment and Pollution Dept.
* Electrical circuit analysis/2nd year, Electrical Power Dep.
* Computer Applications/1st year, Electrical Power Dep.
* Computer Applications/4th year, Electrical Power Dep.
* Engineering analysis/3rd year, Electrical Power Dep.
* Digital Electronics and microprocessor/3rd year, Electrical Power Dep.
* Electronic /1st year, Al- Qurna Technical Institute.
* Computer Applications/4th year, Electrical Power Dep.
* Advanced Control Systems Lab. , Postgraduate.
* Artificial Intelligence in Control System Design, Postgraduate.
* Advanced Computer Networks, Postgraduate.

*Seminars, Workshops, and Training Courses, Conferences (Presenter)*

* Workshop about the plagiarism, 2014, Iraq-Engineering Technical College.
* One week PLC training course for Basrah Gas Company, 2015, Iraq-Engineering Technical College.
* Workshop on using artificial intelligent to solve engineering problems, 2016, Iraq-Engineering Technical College.
* Control Systems training course, 2016, Iraq-Engineering Technical College.
* Turnitin Program Seminar, 2016, Southern Technical University.
* One Type of Modern Systems (AI) training course. 2017, Iraq-Engineering Technical College.
* As a presenter of paper in Al-Sadeq International Conference on Multidisciplinary in IT and Communication Science and Applications (IEEE), 2016.
* Eight one week PLC training course for Basrah Gas Company , 2017-2018, Iraq- Southern Technical University.
* Six one week DCS training course for Basrah Gas Company , 2017-2018, Iraq-Southern Technical University.
* Three days workshop on genetic algorithm for postgraduate students, 2017.
* H- index workshop in university of Basrah, 2017.
* Publication, Scopus, Thomson reuter workshop, Southern Technical University, 2017.
* Workshop in Technical Institute-Qurna on artificial intelligent and its use in daily our life, 2018.
* Course training in Engineering Technical College Basrah on the parts of PC and how to repair, 2018.
* Student conference in Engineering Technical College-Basrah, Our project CNC.
* Course training in Engineering Technical College Basrah on solar energy, 2019.
* Course training in Engineering Technical College Basrah on types of controllers, 2018.

*Seminars, Workshops, and Training Courses, Conferences (Participant)*

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| --- | --- | --- | --- |
| A symposium on modern technologies for renewable energy applications | 2015 | Iraq-Al-Mustaqbal University | Attendance |
| The fourth scientific conference for engineering and technology | 2015 | Iraq- The Islamic University College | Attendance |
| A symposium on IEEE-Iraq | 2015 | Iraq- [Petroleum culture center](https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=12&cad=rja&uact=8&ved=0ahUKEwjxm9P9yN3PAhWMOsAKHT5nDNUQFgheMAs&url=http%3A%2F%2Fwikimapia.org%2F12295141%2FPetrolum-culture-center-%25D8%25A7%25D9%2584%25D9%2585%25D8%25B1%25D9%2583%25D8%25B2-%25D8%25A7%25D9%2584%25D8%25AB%25D9%2582%25D8%25A7%25D9%2581%25D9%258A-%25D8%25A7%25D9%2584%25D9%2586%25D9%2581%25D8%25B7%25D9%258A&usg=AFQjCNGmFEbjQHACTMFUpe0coC0oSI3yQA) | Attendance |
| ISO workshop | 2015 | Iraq- [Petroleum culture center](https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=12&cad=rja&uact=8&ved=0ahUKEwjxm9P9yN3PAhWMOsAKHT5nDNUQFgheMAs&url=http%3A%2F%2Fwikimapia.org%2F12295141%2FPetrolum-culture-center-%25D8%25A7%25D9%2584%25D9%2585%25D8%25B1%25D9%2583%25D8%25B2-%25D8%25A7%25D9%2584%25D8%25AB%25D9%2582%25D8%25A7%25D9%2581%25D9%258A-%25D8%25A7%25D9%2584%25D9%2586%25D9%2581%25D8%25B7%25D9%258A&usg=AFQjCNGmFEbjQHACTMFUpe0coC0oSI3yQA) | Attendance |
| IVSL workshop | 2015 | Iraq-Technical College | Participant |
| Teaching VS learning and the learning process | 2015 | Iraq-Technical College | Attendance |
| Workshop about the new teaching technologies | 2014 | Iraq-Technical College | Attendance |
| Workshop the methods of the running of 3-phase and 1-phase motors | 2015 | Iraq-Technical Institute-Qurna | Attendance |
| Universities ICT research and development conference | 2016 | Iraq- [Petroleum culture center](https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=12&cad=rja&uact=8&ved=0ahUKEwjxm9P9yN3PAhWMOsAKHT5nDNUQFgheMAs&url=http%3A%2F%2Fwikimapia.org%2F12295141%2FPetrolum-culture-center-%25D8%25A7%25D9%2584%25D9%2585%25D8%25B1%25D9%2583%25D8%25B2-%25D8%25A7%25D9%2584%25D8%25AB%25D9%2582%25D8%25A7%25D9%2581%25D9%258A-%25D8%25A7%25D9%2584%25D9%2586%25D9%2581%25D8%25B7%25D9%258A&usg=AFQjCNGmFEbjQHACTMFUpe0coC0oSI3yQA) | Attendance |
| A symposium on Internet of Things | 2015 | Iraq-University of Basrah-College of Engineering | Attendance |
| Health Insurance conference | 2016 | Iraq- Medical Technical College-Basrah | Attendance |
| Workshop on the skills of writing the research papers | 2016 | Iraq-Technical College | Participant |
| Workshop on using artificial intelligent to solve engineering problems | 2016 | Iraq-Technical College | Presenter |
| Workshop on using electronic engineering for life development | 2016 | Iraq-Technical College | Participant |
| Workshop on faults detection on motors using wavelet | 2016 | Iraq-Technical College | Participant |
| Workshop on the methods of teaching | 2016 | Iraq-Southern Technical University | Participant |
| Thesis preparation using Latex workshop | 2014 | Malaysia | Participant |
| SPSS intermediate workshop | 2014 | Malaysia | Participant |
| The Malaysia TRIZ innovation association workshop | 2012 | Malaysia | Participant |
| Avoiding plagiarism in academic writing workshop | 2012 | Malaysia | Participant |
| Google developer group workshop | 2015 | Iraq-Basrah College | Participant |
| Using Latex for thesis writing | 2011 | Malaysia | Participant |
| Proposal defense mini workshop | 2012 | Malaysia | Participant |
| Planning your research projects | 2012 | Malaysia | Participant |
| Scopus/ science direct database workshop | 2012 | Malaysia | Participant |
| 4th Symposium on Image Processing, Image Analysis and Real Time Imaging (IPIARTI 2013) and the 1st Symposium on Acoustics, Speech and Signal Processing (SASSP 2013) | 2013 | Malaysia | Attendance |
| From journal to thesis: How to get your work published  Towards research excellence | 2013 | Malaysia | Participant |
| Towards research excellence | 2013 |  |  |
| Three Webinar in IEEE | 2017 | IEEE | Participant |
| One Webinar in Elsevier | 2017 | Elsevier | Participant |
| HSE | 2018 |  |  |

Also, I have additional Seminars, Workshops, and Training Courses, Conferences (Participant)

*Awards and Appreciation Letters:*

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| --- | --- | --- | --- |
| No. |  | Donor | Year |
| 1 | Certificate of appreciation | Basrah Youth and Sport Directorate | 2009 |
| 2 | Certificate of appreciation | Basrah Youth and Sport Directorate | 2010 |
| 3 | Acknowledgement | Al-Mustaqbal University | 2015 |
| 4 | Certificate of appreciation | Technical Institute-Qurna | 2015 |
| 5 | Certificate of appreciation | Applied soft computing journal(Elsevier) | 2014 |
| 6 | Certificate of appreciation | The committee of the universities ICT research and development conference | 2016 |
| 7 | Certificate of appreciation | Imam Jaafar Al-Sadiq University | 2016 |
| 8 | Acknowledgement | Vice chancellor for the scientific affairs | 2015 |
| 9 | Acknowledgement (2) | Technical Institute-Qurna | 2015,2018 |
| 10 | Acknowledgement | Vice chancellor for the administrative affairs | 2014 |
| 11 | Acknowledgement (18) | Engineering Technical College | 2010-2018 |
| 12 | Acknowledgement (2) | President of Southern Technical University | 2017 |
| 13 | Acknowledgement (2) | University of Basrah | 2017,2018 |
| 14 | Certificate of appreciation | President of Southern Technical University | 2018 |

Also, I have additional awards and appreciation letters.

*Activities*

I have visited the Basrah Gas Company, Fayhaa General Hospital, and State Company for Petrochemical industries in order to share the knowledge and the experience.