

Curriculum Vitae

Personal Information

Surname : ALI.
First Name : Faez Hassan.
Date and Place of Birth: Iraq-Baghdad-1964.
Address : Baghdad-Tunis Q.-Q330-S62-H64.
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Marital Status : Married / Children: 4.
Gender : Male.



Education

1. **B.Sc. in Mathematics (1987).**

- Project titled : “**Optimization Theory**”.
- Project Advisor: Prof. Dr. Abd AL- Samiaa AL-Janabi.
- Department of mathematics / College of Science / AL-Mustansiriya University.

2. **M.Sc. in Mathematics (1999).**

- Thesis titled “**Applications of Numerical Analysis and Basic Criteria for Linear Feedback Shift Registers Systems**”.
- Thesis Advisor: Asst. Prof. Dr. Jumaa Zarnan Aswad.
- Department of Mathematics / College of Science / AL-Mustansiriya University.

3. **Ph.D. in Mathematics (2015).**

- Thesis titled “**Improving Exact and Local Search Algorithms for Solving Some Combinatorial Optimization Problems**”.
- Thesis Advisor: Prof. Dr Tariq S. Abdul_Razaq.
- Department of Mathematics / College of Science / AL-Mustansiriya University.

Membership

- Iraqi Association of Physics and Mathematics.
- Iraqi Association of Information Technology.

Computer Skills:

- **Internet and Computing Core Certification (IC³) from CertiPort/2010.**
- **Programming languages:** Pascal, MATLAB, Delphi
- **Software packages:** Microsoft Office (Word, Excel, Power point).

Work Experience

- 1987-2003 : Senior System Analyst in Military Industrial Commission.
- 2003-current: Lecturer at the Dept. of mathematics / College of Science / AL-Mustansiriya University.

Research Interests

1. **Computer Security**

- Data Security (Cryptography and Cryptanalysis).

- Steganography and Steganalysis.
 - Network security.
 - Statistical Randomness Test.
2. **Operations Research**
- Single Machine Weighed Tardiness.
 - Parallel Machine Scheduling.
 - Stochastic Models.
 - Combinatorial Optimization Problems.
3. **Heuristic Optimization**
- Genetic Algorithm.
 - Particle Swarm Optimization.
 - Ant Colony Optimization.
 - Simulated Annealing.
 - Bees Algorithm.

Teaching Experience

- Advanced Cryptography.
- Numerical Analysis.
- Computer Security.
- Operation Research.
- Structure Programming.
- Systems Analysis.
- Discrete Mathematics.
- Combinatorial Optimization Problems.
- Linear Programming Problems.
- Visual Programming.
- Simulation.

Languages

English and Arabic (reading and writing).

Published Papers (27)

1. "*Use the Multiplicative Cyclic Group to Generate Pseudo Random Digital Sequences*", Journal of Al-Rafidain University College for Sciences, Vol.20, pp.122-135, 2006.
2. "*Cryptanalysis of the Stream Cipher Systems Using the Genetic Algorithm*", Proceeding of the Information Technology & National Security Conference, Vol.1, pp.2129-2171, Al-Riyadh-KSA,1-4/Dec./2007.
3. "*Constructing and Solving the Linear Equations System Produced From LFSR Generators*", Baghdad University, Journal of Ibn-Alhaitham for Pure and Applied Sciences, 2008.
4. "*Use of Neural Networks in Cryptanalysis of Stream Cipher Systems*", Iraqi Association of Information Technology Journal, Al-Mustansiriyyah University, College of Science/ Computer Dept., 2008.
5. "*The Role of Information Technology in Data Security*", Al-Mustansiriya University, Journal of College of Basic Education, 2008.

6. "***Cryptanalysis of Polyalphabetic Substitution Cipher Using Genetic Algorithm***", Proceeding of the 1st Conference of Iraqi Association of Information Technology, Vol.1, pp. 85-112, Iraq, Jen./2009.
7. "***Using Access Control Policy and Cryptosystems to Protect the Secret Documents against Intruders and Entrusted Programs***", Proceeding of the 1st Information Technology Conference, Vol.1, pp.309-320, April, 2009.
8. "***Solving Linear Equations Systems Using Genetic Algorithm***", The 10th Scientific Conference, Al-Mansour University College & Iraqi Association for Libraries & Information -Iraq, No#.14, pp.121-137, 24-25/Oct./2009.
9. "***Generalize the Randomness Tests to Test the Digital Sequences Produced from Digital Stream Cipher Systems***", Iraqi Journal for Science, Baghdad University, College of Science, 2009.
10. "***Construction of New Triangle to Find the Coefficients of the Polynomials Represent the Term $I(x+j)$*** ", The First Iraqi-French Mathematics Conference in Cooperation with College of Science, Salahaddin University-Erbil, Iraq, 14-18, Nov., 2009, Journal of Pure and Applied Sciences, Special Issue, Vol.22, pp. 138-152, 2010.
11. "***High Efficient Sequences Generate from Developed MCG Generator***", the 10th Scientific Conference, Al-Rafidian University College No#. 25, pp.169-182, 21, Nov., 2009.
12. "***Letter Recognition Using Neural Network Learned by Particle Swarm Optimization***", 17th Scientific Conference, Al-Mustansiriya University, College of Education, 5-6/May/2010.
13. "***Detecting the LSB-LFSR Algorithm Stego-Image Using the Statistical Analysis and Visual Attack***", The 11th Scientific Conference, Al-Mansour University College & Iraqi Association for Libraries & Information -Iraq, 19-20/Oct./2011.
14. "***Modified Heuristics For Scheduling in Flow Shop to Minimize Makespan***", Journal of Al-Rafidain University College for Sciences, No#.30, 2012.
15. "***Theoretical Estimation of the Autocorrelation Postulate for Nonlinear Sequences Generated from Threshold***", Al-Mustansiriya University, Journal of College of Basic Education, Vol.18, No#.75, pp.183-196, 2012.
16. "***Pattern Recognition based on Intelligent Systems***", Journal of Al-Rafidain University College for Sciences, No#.31, 2013.
17. "***Dynamic Stream Ciphering Algorithm***", IOSR Journal of Computer Engineering (IOSR-JCE) e-ISSN: 2278-0661, p- ISSN: 2278-8727 Volume 16, Issue 2, Ver. VIII (Mar-Apr. 2014), PP 72-78 www.iosrjournals.org.
18. "***Constructing of an Artificial Neural Networks to Minimize Total Completion Time and Total Tardiness***", IOSR Journal of Mathematics (IOSR-JM) e-ISSN: 2278-3008, p- ISSN:2319-7676. Volume 10, Issue 2 Ver. VI (Mar-Apr. 2014), PP 25-37 www.iosrjournals.org.
19. "***Modification of Some Solution Techniques of Combinatorial Optimization Problems to Analyze the Transposition Cipher***", Mathematical Theory and Modeling, ISSN 2224-5804 (Paper) ISSN 2225-0522 (Online), Vol.4, No.9, PP 120-141, 2014. www.iiste.org.
20. "***Hybrid Bees Algorithm to Solve Aircraft Landing Problem***", Journal of Zankoy Sulaimani – Part A For Pure and Applied Sciences (JZS-A) ISSN 1812-4100 Issued by the University of Sulaimani, Vol.(17), No.(1), PP 71-89, (2015), www.univsul.edu.iq.
21. Abdul-Razaq T. S. and Ali F. H., "***Algorithms for Scheduling a Single Machine to Minimize Total Completion Time and Total Tardiness***", The 2nd International Conference on Mathematical Sciences-ICMA, 23-24 Oct. 2013, Basrah Journal of Science (A) Vol.34, Issue 2, pp. 113-132 , 113-132, (2016).

22. ***“Scheduling a Single Machine to Minimize Max Tardiness, Max Late Work and Total Late Work”***, Mathematics and Statistics Journal, Published BY IWNEST Publication, ISSN-2077-4591, 3(1): 1-17, 2017.
23. ***“Local Search Methods to Solve Multi-Criteria Machine Scheduling Problems”***, the 23th Scientific Conference, Al-Mustansiriyah University, College of Education, 26-27/4/2017.
24. ***“Analyzing Cryptosystems by Using Artificial Intelligence”***, special Issus: 1st Scientific International Conference, College of Science, Al-Nahrain University, 21-22/11/2017, Part I, pp.100-108, DOI. 10.22401/SIC.I.14, 2017.
25. ***“Robust and Efficient Dynamic Stream Cipher Cryptosystem”***, Iraqi Journal of Science, Vol. 59, No.2C, pp: 1105-1114, DOI:10.24996/ijs.2018.59.2C.1, 2018.
26. ***“New Improved Heuristic Method for Solving Travelling Salesman Problem”***, Iraqi Journal of Science, 2018, Vol. 59, No.4C, pp: 2289-2300, DOI:10.24996/ijs.2018.59.4C.16, 2018.
27. ***“Design of New Dynamic Cryptosystem with High Software Protection”***, Iraqi Journal of Science, 2018, Vol. 59, No.4C, pp: 2301-2309, DOI:10.24996/ijs.2018.59.4C.17, 2018.

Scientific Conferences (18)

1. Data and Computers Security and Protection Workshop, Baghdad-Iraq, 2000.
2. Data and Computer Security and Protection Workshop, Baghdad-Iraq, 2001.
3. The 1st National Conference in Mathematical Sciences, Baghdad-Iraq, Sep. 2001.
4. Information Technology & National Security Conference, Al-Riyadh-KSA, 1-4 Dec. 2007.
5. The 1st Conference of Iraqi Association of Information Technology, Baghdad-Iraq, 17th Jen.2009.
6. The 1st Information Technology Conference, Baghdad-Iraq, 21-23 April, 2009.
7. The 10th Scientific Conference, Al-Mansour University College & Iraqi Association for Libraries & Information -Iraq, 24-25/Oct./2009.
8. Informatics and its Applications in Modern Education Seminar, Center of Development and Continuous Education Workshop, Baghdad University, Baghdad-Iraq, 4th Nov.2009.
9. The First Iraqi-French Mathematics Conference in Cooperation with College of Science, Salahaddin University-Erbil, Iraq, 14-18, Nov., 2009.
10. The 10th Scientific Conference, Al-Rafidian University College-Iraq, 21, Nov., 2009.
11. The 17th Scientific Conference, Al- Mustansiriyah University, College of Education-Iraq, 5-6, May, 2010.
12. The 1st Scientific Conference/Mathematical and Computer Science/ Al-Kufa University College-Iraq, March, 2011.
13. The 17th Scientific Conference, Al- Mustansiriya University, College of Science-Iraq, 4-5, May, 2011.
14. The 11th Scientific Conference, Al-Mansour University College-Iraq, 19-20/Nov./2011.
15. The 9th Scientific Conference, Al- Mustansiriya University, College of Science-Iraq, 6-7, May, 2013.
16. The Second International Conference on Mathematical Sciences-ICMA2013, 23-24, Basrah-Iraq, October, 2013.
17. The 23th Scientific Conference, Al-Mustansiriyah University, College of Education, 26-27/4/2017.
18. The 1st International Scientific Conference, Al-Nahrain University, College of Science, 21-22/11/2017.

Scientific Journals (13)

1. Journal of Al-Rafidain University College for Sciences.
2. Journal of Ibn-Alhaitham for Pure and Applied Sciences.
3. Iraqi Association of Information Technology Journal, Al-Mustansiriya University, College of Science.
4. Journal of College of Basic Education, Al-Mustansiriya University.
5. Iraqi Journal for Science, College of Science, Baghdad University.
6. Journal of Pure and Applied Sciences College of Science, Salahaddin University-Erbil.
7. Journal of College of Education, Al-Mustansiriya University.
8. International Organization of Scientific Research, Journal of Computer Engineering (IOSR-JCE), e-ISSN: 2278-0661, p- ISSN: 2278-8727, www.iosrjournals.org.
9. International Organization of Scientific Research, Journal of Mathematics (IOSR-JM), e-ISSN: 2278-3008, p-ISSN:2319-7676.
10. Mathematical Theory and Modeling, The International Institute for Science, Technology and Education (IISTE), ISSN 2224-5804 (Paper) ISSN 2225-0522 (Online), www.iiste.org.
11. Journal of Zankoy Sulaimani – Part A For Pure and Applied Sciences (JZS-A) ISSN 1812-4100 Issued by the University of Sulaimani www.univsul.edu.iq.
12. Mathematics and Statistics Journal, ISSN-2077-4591, Published BY IWNEST Publication, <http://www.iwnest.com>.
13. Iraqi Journal of Science, Vol. 59, No.2C, pp: 1105-1114, DOI:10.24996/ij.s.2018, <http://scbaghdad.edu.iq/eijs>.