

Raed Ibraheem Hamed Falahy

Computer scientist working at the Machine Learning for Big Data (ML4BD-Inc.)

Associate professor, specialist in machine learning

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Technical Biography

I am a computer scientist working at the Machine Learning for Big Data (ML4BD-Inc.), for Machine Learning Applications on better using Computational methods for analysis of different problems. I obtained my M.Sc. in information technology from the University of Technology, Baghdad Iraq in 2004 and my Ph.D. in computer science from the University of Jamia Millia Islamia, New-Delhi-110025, India, in 2011. I carried out Doctoral Degree on computer science at the University of JMI. From October 2005, I was a lecturer in the Department of computer science, college of computer, University of Anbar, where I taught in the B.Sc. (computer science) course.

My personal research interests include machine learning applications, bioinformatics and computational technology, Petri nets modeling and simulating, databases and data mining, and fuzzy logic applications to predictive modeling. I have authored over 61 publications including more than 31 journal papers, 22 refereed international conference papers, and 8 national conference papers. I have invited talks in conferences in India and Iraq. I am a member of the IEEE computer society. I am the winner of the 2010 science day award from the

ministry of higher education and scientific research, and 2017 for top researcher prize.

Academic Degrees

- » **Ph.D.** Computer Science, Department of Computer Science, Faculty of Natural Sciences, University of Jamia Millia Islamia, (A Central University), New-Delhi, India, 2011. Advisor: Prof. Syed I. Ahson.
- » **M.Sc.** Information Technology, Department of Computer Science, University of Technology, Baghdad, Iraq, 2004. Advisor: Dr. R. Abdul Shaheed.
- » **B.Sc.** Computer Science, Department of Computer Science, Faculty of Sciences, Ranked the first out of 110 students, Baghdad College of Economic Sciences University, Baghdad, Iraq, 2002.

Academic Appointments

- » July 2017 – present: working as a computer scientist at the Machine Learning for Big Data (ML4BD-Inc.)
- » September 2015 – Till June 2017, Associate Professor, Computer Science Department, College of Science and Technology, University of Human Development, Sulaymaniyah, Iraq.
- » June 2014 – July 2015, Associate Professor, Information Systems Department, College of Computer, University of Anbar, Anbar, Iraq.
- » July 2012– May 2014, Assistant Professor, Information Systems Department, College of Computer, University of Anbar, Anbar, Iraq.
- » July 2011 - 2012, Assistant Professor, Head of Information Systems Department, College of Computer, University of Anbar, Anbar, Iraq.
- » Oct. 2005–June 2011, Assistant Lecturer, Department of Computer Science, College of Computer, University of Anbar, Anbar, Iraq.
- » Oct. 2004 – Oct. 2005, Assistant Lecturer, Department of Computer Science, Baghdad College of Economic Sciences University, Baghdad, Iraq.
- » Oct. 2004 – Oct. 2005, Assistant Lecturer, Department of Computer Science, Maaref College University, Ramadi, Anbar, Iraq.

- » Oct. 2002 – Oct. 2004, Lab Management, Department of Computer Science, Baghdad College of Economic Sciences University, Baghdad, Iraq.

Research Interests:

- » Machine Learning Applications
- » Databases and Data Mining,
- » Bioinformatics and Computational Technology,
- » Petri Nets Modeling and Simulating,
- » Fuzzy Logic Applications to Predictive Modeling,
- » Workflow management systems,

Academic/Professional Awards

- » Professor Ali Qaradaxi's Top Researcher Prize, 2017
- » Dean's Award for Public Service, Anbar University, 2012
- » Science Day Prize from ministry of higher education and scientific research, Creativity Research, 2010
- » Excellence in Graduate Education Faculty Recognition Prize, Baghdad College of Economic Sciences University, 2005
- » Chancellor's Prize for Graduate (Ranked First out of 110 students in B.Sc. Degree), 2002

Professional Memberships and Activities

- » Editorial board member of the University of Human Development journal
- » Editorial board member of the UHD Journal of Science and Technology
- » Program chair of the, CST-First National Conference of Computer Science and Information Technology, December - 2016
- » Program chair of the International Conference on Current Research in Computer Science and Information Technology, April, 2017.

- » Program committee member of "Fifth International Conference on Mobile & Wireless Networks (MoWiN 2016)" to be held in May 21~22, 2016, Vienna, Austria.
- » Program committee member of "Third International Conference on Foundations of Computer Science & Technology (CST-2016)" to be held in February 6~7, 2015, Sydney, Australia
- » Program committee member of "Second International Conference on Signal and Image Processing (SIGPRO 2016)" to be held on April 02~03, 2016, Chennai, India.
- » Program committee member of "7th International Conference on Information Science and Application", to be held on February 15th – 18th, 2016, Ho Chi Minh, Vietnam.
- » Reviewer of, IEEE/ACM Transactions on Computational Biology and Bioinformatics,
- » Member of IEEE Computer Society.
- » Reviewer of, American Association for Science and Technology (AASCIT) Journal
- » Member of Program Committee of International Journal of Automation and Computing. IJAC, ISSN 1476-8186.
- » Reviewer of Bioinfo Publications Peer-Reviewed Journals: Bioinfo Publications more than 300 Open Access journals covering a wide range of academic disciplines.
- » Reviewer of, 2nd International Conference on Electronics and Optoelectronics (ICEOE 2012), Shenyang Liaoning, China.
- » Reviewer of, International Conference on Advances in Computing, Communication, and Control-2011 to be held from 28-29, January 2011, Lecture Notes in Computer Science, Springer-Verlag Berlin Heidelberg, in Fr. Agnel Ashram, Bandstand, Bandra. Mumbai, Maharashtra, India.
- » Program committee member of "International Conference on Artificial Intelligence and Applications (AIFU 2015)" to be held in Dubai, UAE.
- » Program committee member of "International Conference on Advances in Mechanical Engineering (AME 2015)" to be held in Dubai, UAE.
- » Program committee member of "Second International Conference of Artificial Intelligence and Fuzzy logic (AI&FI 2015)" to be held in Dubai, UAE.
- » Program committee member of (CNSA-2011, NeCoM 2011, WesT 2011, WiMoN, AICTY 2011):- The Fourth International Conference on Network Security & Applications (CNSA-2011). July 15 - 17, 2011, Chennai, India.
- » Program committee member of the Third International conference on Networks & Communications (NeCoM-2011). July 15 -17, 2011, Chennai, India. The Third

International Conference on Wireless & Mobile Networks (WiMoN-2011). July 15 - 17, 2011. Chennai, India. The Third International Conference on Web & Semantic Technology (WeST-2011). July 15 - 17, 2011. Chennai, India.

- » Program committee member of "Third International Conference of Advanced Computer Science & Information Technology (ACSIT-2015)" to be held on June 13 ~ 14, 2015, Zurich, Switzerland.
- » The technical program committee of "2nd International Conference on the Modern Development of Humanities and Social Science(MDHSS2015)", to be held on July 26-27, 2015, Phuket, Thailand.
- » Program committee member of "The 2015 International Conference on Automation, Cognitive Science, Optics, Micro Electro-Mechanical System, and Information Technology (ICACOMIT 2015)" will be held on October 28 – 30, 2015 in Bandung, Indonesia.
- » Program committee member of "Second International Conference on Data Mining and Database (DMDB - 2015)" to be held on May 23 ~ 24, 2015, Vienna, Austria.
- » Program committee member of "International Conference on Mechanical Engineering" (MECN 2015)" to be held in June 27~28, 2015, Bangalore, India.
- » Program committee member of "Second International Conference on Advanced Computing (ADCO-2015)" to be held on November 28 ~ 29, 2015, Vienna, Austria.
- » Program committee member of "Second International Conference on Computer Science, Engineering and Information Technology (CSEIT-2015)" to be held on December 26 ~ 27, 2015, Sydney, Australia.
- » Program committee member of" Fourth International Conference on Advanced Information Technologies and Applications (ICAITA 2015)" to be held on November 6-7, 2015, Dubai, UAE.
- » Program committee member of "2nd International Conference on Information Science and Security (ICISS2015)" The Conference will be held on December 14th – 16th, 2015 in Seoul, Korea.

Regular reviewer for international journals:

1. IEEE Transactions on Automation Science and Engineering
2. IEEE Transactions on Systems, Man, and Cybernetics: Systems
3. Journal of Computer Science and Technology
4. UHD Journal of Science and Technology

✚ Former Students: MSc. Students:

1. **Safa A. Hameed.** “*Determine the Confidence Value Prediction of DNA Sequencing Using Intelligent Model*”. Computer Science Department, College of Computer, University of Anbar, September, 2016.

✚ Teaching Experience

In the last **14** years, Raed I Hamed was responsible for the following courses given at University of Anbar, Baghdad College of Economic Sciences, Maaref College University and University of Human Development:

Course	Year
Programming languages	2004-2005
Computation Theory	2004-2005
Information Theory	2004-2005
Artificial Intelligence	2012-2013; 2013-2014; 2014-2015
Information Technology	2005-2006, 2006-2007
Introduction to Computer Technology	2005-2006
Data Mining and Data Warehouse	2006-2007, 2016-2017
Information system analysis	2006-2007
Computing and Society	2011-2012
Software Engineering	2011-2012; 2012-2013 ; 2013-2014
Human-Computer Interactions	2012-2013; 2013-2014; 2014-2015
Enterprise Systems Development	2012-2013; 2013-2014
Computing In Education	2012-2013; 2013-2014
Advanced Data Structures And Algorithms	2015 – 2016, 2016-2017
Database Management System	206-2007, 2015 – 2016, 2016-2017

✚ List of Publications

Total Publications	61
International Refereed Journals	31
International Conferences	22
National Conferences	8

Refereed Papers Published in International Journals

- 1. Raed I. Hamed.** The potential of nonparametric model in foundation bearing capacity prediction. *Neural Computing and Applications, Springer-Verlag Berlin Heidelberg*, DOI 10.1007/s00521-017-2916-9, pp. 1-7, 2017.
- 2. Raed I. Hamed.** Mathematical Modeling and Simulation Mechanism of Genetics Behavior Together with Neural Fuzzy System. *Journal of Theoretical and Applied Information Technology*, March 2017.
- 3. Raed I. Hamed.** Modeling and Simulation of Lac Operon Regulation of E. coli bacterium Using Intelligent Fuzzy System. *Saudi Journal of Engineering and Technology*. Pp. 100-113, March 2017.
- 4. Raed I. Hamed.** Review on Nasopharyngeal Carcinoma: Concepts, Methods of Analysis, Segmentation, Classification, Prediction and Impact: A review of the research literature. *ScienceDirect-Elsevier, Journal of Computational Science*. 2017.
- 5. Raed I. Hamed.** Solving Vehicle Routing Problem by Using Improved Genetic Algorithm for Optimal Solution. *ScienceDirect-Elsevier, Journal of Computational Science*. 2017.
- 6. Raed I. Hamed.** Analysis of an Electronic Methods for Nasopharyngeal Carcinoma: Prevalence, Diagnosis, Challenges and Technologies. *ScienceDirect-Elsevier, Journal of Computational Science*. 2017.
- 7. Raed I. Hamed.** Review on Nasopharyngeal Carcinoma: Concepts, Methods of Analysis, Segmentation, Classification, Prediction and Impact: A review of the Research Literature. *ScienceDirect-Elsevier, Journal of Computational Science*. 2017.
- 8. Raed I. Hamed.** Artificial Neural Networks for Automatic Segmentation and Identification of Nasopharyngeal Carcinoma. *ScienceDirect-Elsevier, Journal of Computational Science*. 2017.
- 9. Raed I. Hamed.** Solving Vehicle Routing Problem by Using Improved K-Nearest Neighbor Algorithm for Best Solution. *ScienceDirect-Elsevier, Journal of Computational Science*. 2017.
- 10. Raed I. Hamed.** Automatic Segmentation and Automatic Seed Point Selection of Nasopharyngeal Carcinoma from Microscopy Images Using Region Growing Based Approach. *ScienceDirect-Elsevier, Journal of Computational Science*. 2017.
- 11. Raed I. Hamed.** Quantitative Modelling of Gene Networks of Biological Systems Using Fuzzy Petri Nets and Fuzzy Sets. *ScienceDirect-Elsevier, Journal of King Saud University – Science, Elsevier, Volume ---, Issue ----, January, 2017*.

- 12. Raed I. Hamed. An Efficient Approach in Analysis of DNA Base Calling Using Neural Fuzzy Model.** Journal of Advances in Bioinformatics, Hindawi, Volume 2017.
- 13. Raed I. Hamed. A New Method of Fuzzy PN System to Model of Aircraft Flights through Different Terrain.** Journal of Theoretical and Applied Information Technology, Vol.95. No 5, March 2017.
- 14. Raed I. Hamed. Analysing the Score Matching Of DNA Sequencing Using an Expert System of Neuro-Fuzzy.** Journal of Theoretical and Applied Information Technology, March, 2017.
- 15. Raed I. Hamed. Ethylene and Ethane Analysis Based on the Fuzzy Method to Identify Oil Thermal Criticality of the Transformer.** International Journal of Engineering and Computer Science, ISSN: 2319-7242, Volume 5 Issue 1 January 2016, Page No. 15474-15481
- 16. Raed I. Hamed. Design Computational Approach to Model and Simulate of Genes Regulation Levels.** International Journal of Computational Intelligence and Soft Computing, Volume 1, Issue 1, January 14, 2016.
- 17. Raed I. Hamed. An Optimized Method Implemented In Analyzing of Organ System Using Intelligent Tools.** Journal of University Of Human Development, / Vol. 2, No. 4, : pp 424-427, December, 2016.
- 18. Raed I. Hamed. Esophageal Cancer Prediction Based on Qualitative Features Using Adaptive Fuzzy Reasoning Method.** ScienceDirect-Elsevier, Journal of King Saud University of Computer and Information Sciences, KSU-CIS Journal, Volume 27, Issue 2, Pages 129–139, April 2015.
- 19. Raed I. Hamed. Expert Systems of Adaptive Fuzzy Reasoning-Based Implementation for Velocity Estimation of Servo Motor System.** International Journal of Computer Science and Control Systems (JCSCS). Vol. 7, No. 1, pp. 4-14, May 2014.
- 20. Raed I. Hamed. A Novel Complex Knowledge System Modeling Based On Intelligent Techniques for Inferring Genetic Interactions.** International Journal of Information Technology and Systems(IJITS). Vol. 2, No. 2, pp. 29-37, July-Dec. 2013
- 21. Raed I. Hamed. Fuzzy Models in Measuring Gene Expression Levels. BOOK CHAPTER,** "Fuzzy Logic / Book 1", ISBN 979-953-307-578-4. In Tech Publisher.
- 22. Raed I. Hamed and Syed I. Ahson. Confidence Value Prediction of DNA Sequencing with Petri Net Model.** ScienceDirect-Elsevier, Journal of King Saud University of Computer and Information Sciences, KSU-CIS Journal. Vol. 23, (2), pp. 79-89, 2011.
- 23. Raed I. Hamed. Towards a Formal Fuzzy Framework for Modeling and Stationary Analysis of GRNs.** International Journal of Computer Science & Management System (IJCSMS). Vol.3, (1),pp.9-17, 2011.

24. Raed I. Hamed. Design Principles for Regulation of Gene Expression with Fuzzy Expert Networks. International Journal of Science and Technology (IJSAT), Vol. 2, (2), pp. 23-34, 2011.

25. Raed I. Hamed, Prof. Syed I. Ahson, and Dr. Rafat Parveen. Designing Genetic Regulatory Networks Using Fuzzy Petri Nets Approach. (IJAC), Springer-Verlag BerlinHeidelberg, Vol. 7(3), pp. 403-412, 2010.

26. Raed I. Hamed, Prof. Syed I. Ahson and Dr. Rafat Parveen. A New Interpretation of Gene Expression Microarray Data Sets Using Fuzzy Petri Net Approach. International Journal of Engineering Research & Industrial Applications (IJERIA). ISSN 0974-1518, India. Vol.3, No. I, pp 11-25, 2010.

27. Raed I. Hamed, Prof. Syed I. Ahson, and Dr. Rafat Parveen. A New Approach for Modeling Gene Regulatory Networks Using Fuzzy Petri Nets. Journal of Integrative Bioinformatics (JIB),Germany. Vol. 7(1):113, pp. 1-16, 2010.

28. Raed I. Hamed, Dr. Rafat Parveen, and Prof. Syed I. Ahson. Petri Nets Modeling and Simulation of Transcriptional Regulation in *E. coli*. A Journal of Bioinformatics- and Its Applications, Bioinformatics Trends, India. Vol. 4 (2&3), pp. 87-91, 2009.

29. Raed I. Hamed. Hierarchical Clustering for Categorical and Normal Attributes. Journal of BaghdadCollege of Economic Sciences University. Vol. 15, pp.1-12. April, 2008.

30. Raed I. Hamed,Dr. Rafat Parveen, and Prof. Syed I. Ahson. Modeling Cellular Processes of the Eukaryotic DNA Using Hybrid Functional Petri Nets. International Journal of Bioinformatics. ISSN: 0974-6439, India. Vol. 1(2), pp. 53-56, 2008.

31. Raed I. Hamed, and Dr. Rafat Parveen. Designing Biological Processes Model based on Petri Nets. International Journal of Bioinformatics. ISSN: 0974-6439, India. Vol. 1(2), pp. 62-64. 2008.

32. Raed I. Hamed, and Mirza Kamaludeen, Salam Ismaeel. Estimate the Required Broadband for University Students Using Fuzzy System. *communicated.*

Refereed Papers Published in International Conference Proceedings

1. Raed I. Hamed, Prof. Syed I. Ahson and Dr. Rafat Parveen. The Dimensions of Petri nets: Modeling Strategies for Gene Regulatory Networks. Second International Conference on Advances in Computer Vision and Information Technology (ACVIT-2009).Dr. Babasaheb Ambedkar Marathwada University, Aurangabad, India. December 16-18, pp. 359-368, 2009.

2. Raed I.Hamed, Prof. Syed I. Ahson and Dr. RafatParveen. **From Fuzzy Logic Theory to Fuzzy Petri Nets Predicting Changes in Gene Expression Level**. International Conference on Methods and Models in Computer Science (ICM2CS-09), (*IEEE Xplore*), Jawaharlal Nehru University, New Delhi, India, December 14-15, pp. 139-145, 2009.

3. RaedI.Hamed, Prof. Syed I. Ahson, and Dr. RafatParveen. **Fuzzy Model for Gene Regulatory Networks Based on Fuzzy Reasoning Petri Nets**. 4th International Conference on Quality, Reliability and Infocom Technology and Mathematical Modeling and Related Optimization Techniques (trends and future directions). University of Delhi. New Delhi, India, December 18-20, 2009.

4. Raed I.Hamed, Prof. Syed I. Ahson and Dr. Rafat Parveen. **Inferring Gene Regulatory Networks from Microarray Datasets Using Fuzzy Petri Net Approach**. 1st IFIP International Conference on Bioinformatics. Sardar Vallabhbhai National Institute of Technology, SURAT, India, March 25-28, 2010.

5. Raed I. Hamed, Dr. RafatParveen and Prof. Syed I. Ahson. **Modeling and Simulation Gene Expression Regulatory Networks with Fuzzy Petri Net Models**. International Conference on Computational Intelligence and Application (ICCIA-2010), Sandip Foundation's, Nashik, India, March 03-05, pp. 143-153, 2010.

6. Raed I. Hamed, Prof. Syed I. Ahson and Dr. Rafat Parveen. **Fuzzy Reasoning Boolean Petri Nets Based Method for Modeling and Analysing Genetic Regulatory Networks**. 3rd International Conference on Contemporary Computing (IC3-2010), (*Springer-VerlagBerlinHeidelberg(Book Chapter)*), Noida-201307, Uttar Pradesh, India, August 9-11, Vol. 94(1), pp. 530–546, 2010.

7. Raed I. Hamed. **Evolving Fuzzy Petri Net Rules-Based Computational Approach to Model and Simulate Gene Expression Levels**. International Conference on Emerging Trends in Engineering and Technology (IETET-2010), Kanipla, Kurukshetra-136118, Haryana, India, October 14-16, pp. 213-221, 2010.

8. Raed I. Hamed. **A Systematic Approach for Intrusion Detection Based on Extended Fuzzy Petri Net**. International Conference on Computer Applications (ICCA 2010), Lawspet, Pondicherry - 605 008. India. December 24-27, 2010.

9. Raed I. Hamed. **Fuzzy Reasoning Neural Petri Net Based Method for Knowledge-Based Systems in Biological Regulatory Networks**. 4th IEEE International Conference of Advanced Computing and Communication Technologies (ICACCT2010), Panipat-132103 Haryana, India. October 29-31, pp. 150-158, 2010.

10. Raed I. Hamed. **Inferring Gene Interactions from Microarray Gene Expression Data Using Fuzzy Petri Net**. IEEE International Conference on Communication, Control and Computing Technologies (ICCCCT-2010), (*IEEE Xplore*), Syed Ammal Engineering College, Ramanathapuram and Kanyakumari, Tamilnadu, India. October 7-9, 2010.

11. Raed I. Hamed. **A New Approach of Fuzzy Neural Petri Net for Gene Expression Level.** International Conference on Computational Engineering Practices and Techniques, (ICONCEPT2010). M E S College of Engineering – Kuttippuram, Kerala, India, November 25-26, 2010.

12. Raed I. Hamed. **Towards a Formal Fuzzy Framework for Modeling and Stationary Analysis of Gene Regulatory Networks.** International Conference on Next Generation Communication and Computing Systems (ICNGC2S-10), Institution of Engineers, Technocrats and Academician Network (IETAN), Chandigarh, India. December 25-26, 2010.

13. Raed I. Hamed. **A Formal Fuzzy Framework for Knowledge-Based System Analysis of Data Expression of Genetic Regulatory Networks.** International Conference on Emerging Trends in Mathematics and Computer Applications, (ICETMCA2010). Sivakasi-626005, Tamil Nadu, India. December 16-18, 2010.

14. Raed I. Hamed. **Fuzzy Neural Petri Net Based Method for Knowledge Representation of Microarray Gene Expression Level.** International Conference on Biomedical Engineering and Assistive Technologies, (BEATS-2010). Dr. B R Ambedkar National Institute of Technology, Jalandhar Punjab-144011, India. December 17- 19, 2010.

15. Raed I. Hamed. **Weighted Fuzzy Production Rules-Based Approach for Modeling Gene Regulatory Networks.** International Congress On Productivity, Quality, Reliability, Optimization and Modelling, (ICPQROM 2011),. Indian Statistical Institute, 7, SJS Sansanwal Marg, New Delhi - 110003, India. February 7-8, 2011.

16. Raed I Hamed. **Computational Modeling and Dynamical Analysis of Genetic Networks with FRBPN- Algorithm.** International Conference on Advances in Computing, Communication and Control-2011 (ICAC3). (*Springer-Verlag Berlin Heidelberg (Book Chapter)*), Fr. Agnel Ashram, Bandstand, Bandra. Mumbai. January 28-29, CCIS 125, pp. 49–55, 2011.

17. Raed I Hamed. **A Petri Net-Fuzzy Predication Approach for Confidence Value of Called Genetic Bases.** International Conference on Advances in Computing, Communication and Control-2011 (ICAC3). (*Springer-Verlag Berlin Heidelberg (Book Chapter)*), Fr. Agnel Ashram, Bandstand, Bandra. Mumbai. January 28-29, CCIS 125, pp. 56–61, 2011.

18. Raed I. Hamed. **Fuzzy Reasoning Boolean Petri Net as Model of Gene Regulatory Networks.** International Conference on Intelligent Systems and Data Processing. (ICISD 2011). **Universal Publishers Inc. USA** . G H Patel College of Engineering & Technology. Bakrol Road, Vallabh Vidyanagar – 388120, Gujarat, India. January 24 - 25, 2011.

19. Raed I. Hamed. **Constructing Biological Networks Using Fuzzy Models: a Case Study of the Lac Operon Network.** International Interdisciplinary Science Conference

(I-ISC, 2011) On Bioinformatics: An interface between Computer Science and Biology. Engineering Faculty Auditorium, Jamia Millia Islamia (Central University), Jamia Nagar, New Delhi 110025, India. November 15-17, 2011.

20. Raed I. Hamed. Application of a Fuzzy Neural Network Combined With an Expert Petri Net System to Intrusion Detection System. ACIT'2012, the International Arab Conference on Information Technology. by Zarqa University, Jordan, December 10-13, 2012.

21. Raed I. Hamed. Evaluation of Breast Cancer Risk by Using Formal Reasoning Algorithm. Algorithm. The International Conference on Computer Science and Information Technology (CSIT 2013), Applied Science University, Amman, Jordan, March 27-28, 2013.

22. Raed I. Hamed. Intelligent method of Petri net formal computational modeling of biological networks. 5th Computer Science and Electronic Engineering Conference (CEEC), University of Essex, UK, (*IEEE Xplore*), pp. 162–167, 17-18 Sept, 2013.

Refereed Papers Published in National Conference Proceedings

1. Raed I. Hamed, and Dr. Rafat Parveen. **Categorization and Comparative Classical Petri Nets and High-Level Petri Nets.** Second National Conference on Mathematical Techniques: Emerging Paradigms for Electronics and IT Industries (MATEIT-2008), DeenDayalUpadhyayaCollege, University of Delhi, New Delhi September 26-28, 2008.

2. Raed I. Hamed, Dr. Rafat Parveen and Prof. Syed I. Ahson. **Petri Nets for Modeling and Simulation of Gene Regulatory Networks.** UGC National Conference on Bioinformatics and Computational Technologies (BioCT09), Dep. Of Com. Sci. and Eng., Jai narain Vyas University, Jodhpur, 21-22 March 2009.

3. Raed I. Hamed, and Dr. Rafat Parveen. **Intuitive Modeling of Biological Processes with Fuzzy Petri Net and Fuzzy Logic.** Third National Conference on Mathematical Techniques: Emerging Paradigms for Electronics and IT Industries (MATEIT-2010), DeenDayalUpadhyayaCollege, University of Delhi, New Delhi, January 30-31, 2010.

4. Raed I. Hamed. Designing a Fuzzy Model of Biological Network Interactions using Petri Nets Theory. National Conference on Modern Trends in Computer Sciences and Information Technology. College of Science and Engineering, Jhansi-284001, U.P., India. 30-31, October 2010.

5. Raed I Hamed. Fuzzy Reasoning System as a Model of Biological Processes. Third National Conference on Next Generation Computing & Information Systems. (NGCIS 2010). Model Institute of Engineering and Technology, Camp Office: B.C. Road, Jammu – 180001, India. December 18-19, 2010.

6. Raed I. Hamed. Fuzzy System Method in Modeling Biological Processes of GRNs and Analyzing Protein. National Conference on Emerging Trends in Soft Computing (NCETSC11). Department Of Computer Science, Nowrosjee Wadia College, Pune 411 001, India, 2-3, February 2011.

7. Raed I. Hamed. Intuitive Models Based Architecture for Formal Modeling of Mammalian circadian Networks. National Conference on Sober scientific research to build Iraq. Department of Computer Science, Al-Maaref University College, Iraq, 10-11, March 2012.

8. Raed I. Hamed. The Mechanism of Monitoring and Tracing of Healthcare Systems. Second National Conference on Information Technology. College of Computer University of Anbar, Iraq, 19-20, March 2012.