



Passent M Elkafrawy

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EDUCATION

UNIVERSITY OF CONNECTICUT, CONNECTICUT, USA, PHD, 2006

- Major in Computer Science and Engineering, Specialization in AI “Diagrammatic Reasoning”, Dissertation titled “Computational Geometry in Digital Space”

MENOUFIA UNIVERSITY, MENOUFIA, EGYPT, MSC, 1996

- Major in Mathematics and Computer Science, Specialization in AI, Dissertation titled “Expert Systems in Medicine using a Fuzzy Neural Network”

AMERICAN UNIVERSITY IN CAIRO, EGYPT, BSC, 1990

- Major in Computer Science, Minor in Business Administration, GPA: 3.67.

TEACHING EXPERIENCE

Professor, Effat Collage of Engineering, Effat University

- Artificial Intelligence
- Natural Language Processing and Data Mining
- Software Engineering
- Programing Language concepts
- Virtual Reality
- Object Oriented Programing

Professor, Information Technology and Computer Science, Nile University, Egypt, 2019-2022

- Introduction to Programming (Python)
- Advanced Programming in C++/Java
- Artificial Intelligence
- Computational Intelligence
- Parallel Computing

- Post: Formal methods of algorithms

TOT, EMC2 Academic Alliance since 2013 - now

- Data Science and Big Data Analysis
- Cloud Computing
- Information Storage and Management

Professor, Math and Computer Science, Menoufia University, Egypt, until 2018

- Big Data Analytics
- Cloud Computing
- Parallel Computing
- Information Storage and Management
- Concepts of programming languages for graduate students
- AI fundamentals for graduate students
- Expert systems for graduate students
- Introduction to AI for undergraduate students
- Operating Systems
- Database Concepts
- Design and fundamentals of File structure
- Software Engineering
- System Analysis and design
- Data Structure
- Structured Programming C++
- Programming Language - using Python
- Computer Programming - Java and C++
- Introduction Object Oriented programming (Java)
- Advanced programming and web design (JSF, Python)
- Introduction to Computing to Faculty of Science Diploma (using R, R studio)

Adjunct Professor, in American University in Cairo

- Big Data Analytics (AUC)
- Cloud computing (MIU)
- Software Engineering (MIU)
- Project Management (ACU)
- Knowledge based systems (ACU)
- Introduction Object Oriented programming (C++) (AUC)

Assistant Professor, Math and Computer Science, Eastern Connecticut State University 2007-2008

- Database design

RESEARCH EXPERIENCE

20th Learning and Technology Conference (L&T) 2023

- Technical Organizer
- Proceedings Editor

ESOLE 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 22

- Technical Organizer of The Egyptian Society of Language Engineering Conference
- Managing Editor of the Journal of Egyptian Language Engineering.
- Member of the Egyptian Society of Language Engineering.,

Editor and Conference Chair

- Signal Processing and Information Technology: Second International Joint Conference, SPIT 2012, Dubai, UAE, September 20-21, 2012, editors VV Das, PM El-Kafrawy - 2014

SPIT 2011, 2012

- Keynote speaker in SPIT 2012 “International Conference in Signal Processing and Information Technology”, Dubai, and Proceedings Editor.

Projects and Funding

- DAAD-SDF, “Building a global ontology for Egyptian Agricultural knowledgebase” 2022.
- Diagnosing MCI from Facebook activity
Research project with Dublin Neurodegenerative Researchers and ENND Egypt (started 2019).
- CIQAP: Continuous improvement and qualification for accreditation project, since 1/3/2011 in Faculty of Science, Menoufia University.
- DSASP: Development of Student’s Assessment Systems Project since 1/3/2011 in Faculty of Science, Menoufia University (Finished 2013)
- Question Bank: Responsible of the question bank team of entering, maintaining and generating questions and exams in Faculty of Science Menoufia University.
- Automated Grading System: Responsible of the team managing the automated grading system in Faculty of Science Menoufia University.

PUBLICATIONS

Journal Papers

Paper	IF
El-kafrawy, P., Aboghazalah, M., Ahmed, A. M., Torkey, H., El-Sayed, A. (2023). An Efficient Encryption and Compression of Sensed IoT Medical Images Using Auto-Encoder. CMES-Computer Modeling in Engineering & Sciences, 2023, 134(2), 909–926.	2.07
Ahmed H Ragab , Passant El-Kafrawy. "Embedding Based Recommender systems, a review and comparison." Egyptian Journal of Language Engineering, vol. 9 (1,) April 2022, pp 1-11 DOI: 10.21608/EJLE.2022.91884.1025	
Mohamed Reda Zohair Bennawy; Passant El-Kafrawy. "Contextual Data Stream Processing Overview, Architecture, and Frameworks Survey.V2-3. Egyptian Journal of Language Engineering, vol. 9 (1,) April 2022, pp 12-21. DOI: 10.21608/EJLE.2022.104841.1027	
Nada Sabry; Amr Sauber; Passant El-Kafrawy "Surveying Question Answering Systems: A Comparative Study" Egyptian Journal of Language Engineering, vol. 9 (1,) April 2022, pp 22-31.DOI: 10.21608/EJLE.2022.118590.1029	
M Eassa, IM Selim, W Dabour, P Elkafrawy. "Automated detection and classification of galaxies based on their brightness patterns" Alexandria Engineering Journal, 2022 Volume 61, Issue 2, 2022, pp 1145-1158, https://doi.org/10.1016/j.aej.2021.06.020 .	5.4
M Aboghazalah, PM El Kafrawy, H Torkey, A El-sayed. "Using X-ray Image Processing Techniques to Improve Pneumonia Diagnosis based on Machine Learning Algorithms", Menoufia Journal of Electronic Engineering Research 31 (1), 47-54	
Sauber, A. M., Awad, A., Shawish, A. F., & El-Kafrawy, P. M. (2021). A novel Hadoop security model for addressing malicious collusive workers. Computational Intelligence and Neuroscience, 2021 doi:10.1155/2021/5753948	5.4
P. E. Kafrawy, H. Fathi, M. Qaraad, A. K. Kelany and X. Chen, "An Efficient SVM-Based Feature Selection Model for Cancer Classification Using High-Dimensional Microarray Data," in <i>IEEE Access</i> , vol. 9, pp. 155353-155369, 2021, doi: 10.1109/ACCESS.2021.3123090.	4.8
Nasef, M. M., El-Aarag, B., Hashim, A., & El Kafrawy, P. M. (2021). P systems implementation: A model of computing for biological mitochondrial rules using object oriented programming. International Journal of Advanced Computer Science and Applications, 12(10), 517-531. doi:10.14569/IJACSA.2021.0121059	1.1
M. S. Elsayed, G. Liu, A. M. Mostafa, A. A. Alnuaim and P. E. Kafrawy, "Fault-Recovery and Robust Deadlock Control of Reconfigurable Multi-Unit Resource Allocation Systems Using Siphons," in <i>IEEE Access</i> , vol. 9, pp. 67942-67956, 2021, doi: 10.1109/ACCESS.2021.3073639.	4.8
M. Qaraad, S. Amjad, I. I. M. Manhrawy, H. Fathi, B. A. Hassan and P. E. Kafrawy, "A Hybrid Feature Selection Optimization Model for High Dimension Data Classification," in <i>IEEE Access</i> , vol. 9, pp. 42884-42895, 2021, doi: 10.1109/ACCESS.2021.3065341.	4.8
Ibrahim I.M. Manhrawy Mohammed Qaraad Passant El-Kafrawy. "Hybrid feature selection model based on relief-based algorithms and regulizer algorithms for cancer classification" <i>Concurrency and Computation Practice and Experience</i> , 2021, e6200. John Wiley & Sons, https://doi.org/10.1002/cpe.6200	1.447
Selim, I. , Elkafrawy, P. , Dabour, W. and Eassa, M. (2020) Virgo Cluster Membership Based on K-Means Algorithm. International Journal of Astronomy and Astrophysics, 10, 1-10. doi: 10.4236/ijaa.2020.101001.	1.23
Rasha Elnemr, Mohammed M. Nasef, Passant Elkafrawy, Mahmoud Rafea, Amani Jamal "A Theoretical Approach for Correlating Proteins to Malignant Diseases". <i>Front. Mol. Biosci. - Molecular Diagnostics and Therapeutics</i> 2020, doi: 10.3389/fmolb.2020.582593	3.59



M. Salaheldin Elsayed, P. El Kafrawy and N. Wu, "Modeling and Deadlock Control of Reconfigurable Multi-Unit Resource Systems," in IEEE Access, vol. 8, pp. 133605-133621, 2020, doi: 10.1109/ACCESS.2020.3010237.	4.8
E. M. Abou-Nassar, A. M. Ilyasu, P. M. El-Kafrawy, O. Song, A. K. Bashir and A. A. A. El-Latif, "DITrust Chain: Towards Blockchain-based Trust Models for Sustainable Healthcare IoT Systems," in IEEE Access, doi: 10.1109/ACCESS.2020.2999468.	4.8
MB Abou-Donia, HB Suliman, D Siniscalco, N Antonucci, P ElKafrawy. "De novo Blood Biomarkers in Autism: Autoantibodies against Neuronal and Glial Proteins". Behavioral Sciences 9 (5), 47, 2019.	1.368
Mahmoud Rafea, Passent ELkafrawy, Mohammed Nasef, Rasha Elnemer, Amani Tariq Jamal "Applying Machine Learning of Erythrocytes Dynamic Antigens Store in Medicine" Frontiers in Molecular Bioscience, doi: 10.3389/fmolb.2019.00019 April 2019 Volume 6 Article 19.	3.82
Azza A Abdo, Shereen Saleh and Passent Elkafrawy. Searching Techniques over Encrypted Cloud Data. International Journal of Computer Applications 181(50):25-30, April 2019.	3.12
PM Elkafrawy, DE Eldemerdash. "Dynamic Classification for Web Documents Using Semantic Knowledge (DBpedia)". The Egyptian Journal of Language Engineering 5 (2), 16-25, 2018.	
Mohamed Salama, Ali Shalash, Alshimaa Magdy, Marianne Makar, Tamer Roushdy, Mahmoud Elbalkimy, Hanan Elrassas, Passent Elkafrawy, Wael Mohamed, Mohamed B. Abou Donia. "Tubulin and Tau: Possible targets for diagnosis of Parkinson's and Alzheimer's diseases". PLOS ONE https://doi.org/10.1371/journal.pone.0196436 May 9, 2018.	2.776
Heba Allah Abd El Rahman, Mohamed Salama, Seham A Gad El-Hak, Mona A El-Harouny, Passent Elkafrawy, and Mohamed B Abou-Donia. "A panel of autoantibodies against neural proteins as peripheral biomarkers for pesticide-induced neurotoxicity". Neurotoxicity Research, 33 (2), pp 316-336, September 2018.	2.94
Abou-Donia MB, Conboy LA, Kokkotou E, Jacobson E, Elmasry EM, Elkafrawy P, Neely M, Bass CR, Sullivan K "Screening for novel central nervous system biomarkers in veterans with Gulf War Illness" Neurotoxicology and Teratology, 61, pp 36-46, Mar 2017.	2.98
Passent Elkafrawy, Mahmoud Salah, Mohammed Nasef "Using Ws3pr Petri Net For Modeling, Performance Evaluation, and Deadlock-Free Design Of Multi-Unit Resource Systems" International Journal of Advances in Science Engineering and Technology Vol-5, Spl. Issue-2. Feb.-2017.	3.15
SF Ellakwa, PM Elkafrawy. "Establishing Dynamic Ontology for Agriculture Domain". The Egyptian Journal of Language Engineering 4 (2), 41-58, 2017.	
Hatem M. Abdullkader, P. M. El-Kafrawy, Hani M. Ibrahim, Ahmed S. Sakr, "Evaluation model of cryptographic algorithms for Big Data security over NoSQL database", Jökull Journal, Vol 66, No. 8; pp. 26.34,2016.	1.6
Passent M. El-Kafrawy, Rania.A.Mohamed, "Handling Uncertainty in Semantic Case Based Reasoning", Jokull journal, vol (66), August 2016 (ISI with IF 1.6).	1.6
Passent M. El-Kafrawy, Rania.A.Mohamed, "Inference of Uncertain Data using Semantic Knowledge in Case Based Reasoning Framework", The Egyptian Journal of Language Engineering, Egyptian Society of Language Engineering (ESOLE), 2016.	
Passent ElKafrawy, Rania A. Mohamed. "Semantic Case Based Reasoning on Medical Knowledge". International Journal of Advance Research in Computer Science and Management Studies. Volume 3, Issue 12, December 2015.	
Ali Meligy, Passent El-Kafrawy and Hanaa Fathi. "A Web Service Discovery based on QoS Negotiation Approach". International Journal of Computer Applications 111(13):40-45, February 2015.	3.12



Passent El Kafrawy, Amr Mausad, Heba Esmail, "Experimental Comparison of Methods for Multi-label Classification in different Application Domains" IJCA March 2015, 114 (19) 20083-1666.	
Passent ElKafrawy, R.A.Mohamed. "Comparative Study of Case Based Reasoning Software ". International Journal of Scientific Research & Management Studies 1 (6) pp 224-233, September 2014.	
Noha E Negm, Passent ElKafrawy, Mohamed Amin, Abdel-Badeeh M Salem. "KMDC: Knowledge based Medical Document Clustering System using Association Rules Mining" International Journal of Bio-Medical Informatics and e-Health 1(2) pp 26-34, Sep 2013.	
Noha Negm, Mohamed Amin, Passent Elkafrawy, Abdel Badeeh M Salem. "Investigate the Performance of Document Clustering Approach Based on Association Rules Mining". International Journal of Advanced Computer Science and Applications (IJACSA) 4 (8) pp 142- 151 Aug 2013.	
Noha Negm, Mohamed Amin, Passent Elkafrawy, Abdel Badeeh M Salem "Clustering web documents based on efficient multi-tire hashing algorithm for mining frequent termsets". Int. J. of Advanced Research in Artificial Intelligence 2 (6) pp 6-14, June 2013.	
Suzan F Ellakwa, Elsaid S El-Azhary, Passent El-Kafrawy. "Integrated ontology for agricultural domain". International Journal of Computer Applications 54 (2), 2012.	
Susan Fisal Ellakwah, Passent El-Kafrawy, El-Sayed El-Azhary. " Building Ontology for Agriculture", International Journal of Computer Applications, 54(2) pp. 46-53 September 2012.	
Passent El-Kafrawy, Mariana Barsoum "On the Visualization and Software Techniques for Medical Imaging". International Journal of Research and Reviews in Computer Science (IJRRCS), UK, Vol. 3, No. 1, June 2012.	
Noha Negm, Passent Elkafrawy and Abdel Badea Salem. Article: A Survey of Web Information Extraction Tools. International Journal of Computer Applications 43(7):19-27, April 2012.	
Passent El-Kafrawy, and Amr M. Sauber "Parallel class decomposition for building GA Rule-based classifiers", Egyptian Computer Science Journal, 62 (3) September 2011.	
Ismail I. Amr, Mohamed Amin , Passent El-Kafrawy , and Amr M. Sauber "Using Statistical Moment Invariants and Entropy in Image Retrieval". International Journal of Computer Science and Information Security. 7 (1), pp. 160-164, January 2010	
I. A. Ismail, N. A. ElRamly, M. A. Abd-ElWahid, P. M. ElKafrawy, and M. M. Nasef, "Genetic programming frame-work for classification problems," Journal of Computer and Electrical Engineering, 2010.	
Ismail A. Ismail, Nabawia A. El Ramly, Mohammed A. Abd-ElWahid, Passent M. ElKafrawy, Mohammed M. Nasef "Genetic Programming Framework for Fingerprint Matching". International Journal of Computer Science and Information Security vol 6 no 2, 2009.	
Nabawia A. El Ramly, Abdelmenoum Koza, Passent M. ElKafrawy, Ahmed Sobhi: "Human development index using Rough Sets", Journal of computing Zakazik University, 2009.	
Passent el-Kafrawy and Robert McCartney. "Reasoning with geometric information in digital space". Journal of Knowledge-Based Systems, 18(2-3):179-186, 2005.	

Book Chapters

El-Kafrawy, P., Bennawy, M. (2022). Walk Through Event Stream Processing Architecture, Use Cases and Frameworks Survey. In: Nedjah, N., Abd El-Latif, A.A., Gupta, B.B., Mourelle, L.M. (eds) Robotics and AI for Cybersecurity and Critical Infrastructure in Smart Cities. Studies in Computational Intelligence, vol 1030. Springer, Cham. https://doi.org/10.1007/978-3-030-96737-6_3



Abounassar E.M., El-Kafrawy P., Abd El-Latif A.A. "Security and Interoperability Issues with Internet of Things (IoT) in Healthcare Industry: A Survey". (2022) *Studies in Big Data*, 95, pp. 159 - 189, 2022.

Conference Papers

Paper

Abdelmageed, A., Hatem, S., ael, T., Medhat, W., König-Ries, B., Ellakwa, S., Elkafrawy, P. & Algergawy, A., (2023). A Core Ontology to Support Agricultural Data Interoperability. In: König-Ries, B., Scherzinger, S., Lehner, W. & Vossen, G. (Hrsg.), *BTW 2023. Gesellschaft für Informatik e.V.*. DOI: 10.18420/BTW2023-58

P. Elkafrawy, H. Abbas, J. AlFarra, L. Alam and M. Junaid, "The Redefinition of mHealth Applications in the Metaverse," *2023 20th Learning and Technology Conference (L&T)*, Jeddah, Saudi Arabia, 2023, pp. 14-19, doi: 10.1109/LT58159.2023.10092356.

R. Elnemr, M. Rafea and P. Elkafrawy, "An Approach for Detecting Missed Tissue Proteins in Autoimmune Diseases," *2023 20th Learning and Technology Conference (L&T)*, Jeddah, Saudi Arabia, 2023, pp. 65-68, doi: 10.1109/LT58159.2023.10092296.

M. Taher, M. M. Hedaya, B. Bakeer, P. E. Kafrawy and M. Zakaria, "Dynamic Modeling and Identification of the COVID-19 Stochastic Dispersion," *2022 20th International Conference on Language Engineering (ESOLEC)*, Cairo, Egypt, 2022, pp. 147-151, doi: 10.1109/ESOLEC54569.2022.10009467.

M. T. Gamal and P. M. El-Kafrawy, "Improving The Performance of Semantic Text Similarity Tasks on Short Text Pairs," *2022 20th International Conference on Language Engineering (ESOLEC)*, Cairo, Egypt, 2022, pp. 50-52, doi: 10.1109/ESOLEC54569.2022.10009072.

A. H. Ragab and P. El-Kafrawy, "Using Knowledge Graph Embeddings in Embedding Based Recommender Systems," *2022 20th International Conference on Language Engineering (ESOLEC)*, Cairo, Egypt, 2022, pp. 129-132, doi: 10.1109/ESOLEC54569.2022.10009491.

A. Mahgoub *et al.*, "Sentiment Analysis: Amazon Electronics Reviews Using BERT and Textblob," *2022 20th International Conference on Language Engineering (ESOLEC)*, Cairo, Egypt, 2022, pp. 6-10, doi: 10.1109/ESOLEC54569.2022.10009176.

M. Aboghazalah, R. Elnemr, N. Elsayed, A. El-sayed and P. El-Kafrawy, "Recommender Diagnosis System with Fuzzy Logic in Cloud Environment," *2022 20th International Conference on Language Engineering (ESOLEC)*, Cairo, Egypt, 2022, pp. 118-123, doi: 10.1109/ESOLEC54569.2022.10009214.

ElKafrawy, Passent and Ragab, Ahmed Hussein. "Using Knowledge Graph Embeddings in Embedding Based Recommender Systems". *IEEE 2022 20th International Conference on Language Engineering (ESOLEC'20)*, Egypt. <https://doi.org/10.1109/ESOLEC54569.2022.10009491>

Hassan Moharram, Ahmed Awad, and Passent M. El-Kafrawy. 2022. Optimizing ADWIN for steady streams. In *Proceedings of the 37th ACM/SIGAPP Symposium on Applied Computing (SAC '22)*. Association for Computing Machinery, New York, NY, USA, 450–459. <https://doi.org/10.1145/3477314.3507074>

El-Kafrawy, P., Bennawy, M. "Recommendations on Streaming Data: E-Tourism Event Stream Processing Recommender System". *INFUS 2022 is the fourth conference on intelligence and fuzzy systems*, Izmir Turkey, July 19-21, 2022

A. A. Farghaly and P. M. El-Kafrawy, "Exploring The Use Of Cognitive Tests To Predict Programming Performance: A Systematic Literature Review," *2021 31st International Conference on Computer Theory and Applications (ICCTA)*, Alexandria, Egypt, 2021, pp. 40-48, doi: 10.1109/ICCTA54562.2021.9916610.

M. Qaraad, S. Amjad, P. El-Kafrawy, H. Fathi and I. I. M. Manhrawy, "Parameters Optimization of Elastic NET for High Dimensional Data using PSO Algorithm," *2020 International Conference on Intelligent Systems and Computer Vision (ISCV)*, Fez, Morocco, 2020, pp. 1-7, doi: 10.1109/ISCV49265.2020.9204218.



A. Tarek, H. Elsayed, M. Rashad, M. Hassan and P. el kafrawy, "Dynamic Programming Applications: A Suvrvey," 2020 **2nd Novel Intelligent and Leading Emerging Sciences Conference (NILES)**, 2020, pp. 380-385, doi: 10.1109/NILES50944.2020.9257968.

P. El-Kafrawy, I. I. M. Manhrawy, H. Fathi, M. Qaraad and A. K. Kelany, "Using Multi-Feature Selection with machine learning for De novo Acute Myeloid Leukemia in Egypt," IEEE International Conference on Intelligent Systems and Advanced Computing Sciences (ISACS), Taza, Morocco, 2019, pp. 1-8, doi: 10.1109/ISACS48493.2019.9068905.

Passent El Kafrawy, Amr Mausad, Nada Ali. "Semantic Question Answering System Using Dbpedia", The 31st International Conference on Industrial, Engineering & Other Applications of Applied Intelligent Systems. Lecture Notes in Computer Science series, Volume 10868, 2018.

Passent El Kafrawy, Amr Mausad, Mohamed Hafez, Amr Shawish. "HDFSx: An enhanced model to handle small files in Hadoop with a simulating toolkit". IEEE 2018 1st International Conference on Computer Applications & Information Security (ICCAIS), Saudi Arabia, pp 1-8, 2018

Ahmed S Sakr, P M El-kafrawy, Hatem M Abdulkader, Hani M Ibrahim. "An Efficient Framework for Big Data Security Based on Selection Encryption on AmazoneC2". IEEE 2018 1st International Conference on Computer Applications & Information Security (ICCAIS), pp 1-5, 2018

Passent Elkafrawy and Mohamed S. Khalaf. "Forming System Requirements for Software Development Using Semantic Technology", International Conference on Advanced Intelligent Systems and Informatics, pp. 755-764, Springer, Sep 2018.

Passent Elkafrawy, Mahmoud Salah, and Mohammed Nasef, "Using WS3PR Petri Net for Modeling, Performance Evaluation, And Deadlock-Free Design of Multi-Unit Resource Systems", Proceedings of 56th ISERD International Conference, Mecca, Saudi Arabia, 16th-17th December 2016, ISBN: 978-93-86291-59-2.

Passent M ElKafrawy, Amr M Sauber, Mohamed M Hafez. "HDFSX: Big data Distributed File System with small files support". Proceedings of 12th International Computer Engineering Conference (ICENCO), pp. 131-135, 2016

Passent M. El-Kafrawy, Rania A. Mohamed, "Case Based Reasoning of Semantic Knowledge on Medical System" *The Fifteenth Conference on Language Engineering*, Egypt, December 2015.

Passent El Kafrawy, Amr Mausad, Awad Khalil. "Multi-Label classification for Mining Big Data" International Conference on Advances in Big Data Analytics. July 27-30, 2015, Las Vegas, USA

Passant El-Kafrawy, Emad Elabd and Hanaa Fathi. "A trustworthy Reputation Approach for Web Service Discovery". In proceedings of ICCMIT 2015 Conference 65, 572-581, Purage, 16 March 2015.

Passent M. El-Kafrawy, Azza A. Abdo, Amr. F. Shaw. "Security Issues Over Some Cloud Models". In Proceedings of International Conference on Communication, Management and Information Technology (ICCMIT 2015), Procedia CS 65, 853-858, Purage, 16 March 2015.

Emad Elabd, Passent M El-Kafrawy, Eman M Abou-Nassar. "Semantic-based Web services selection for mobile". IEEE 9th International Conference on Informatics and Systems (INFOS), 2014.

P. Elkafrawy, M. Rafea, M. Nasef, R. Elnemr. "Evaluation of Semantic Networks" In proceedings of ESOLE 2014.

Passent ElKafrawy, Rania. A. Mohamed. "Comparative Study of Case Based Reasoning Software and Natural Language" In proceedings of ESOLE, Egypt, **December** 2014.

Noha Negm, Passent ElKafrawy, and Abdel Badea Salem. "Survey of Information Extraction Tools for Web Documents". In proceedings of WSEAS Transactions on Computers, 2012.

Noha Negm, Passent El-Kafrawy, and Abdel Badea Salem. "An Efficient Hash-based Association Rule Mining Approach for Document Clustering". Recent Researches in Communications and Computers, WSEAS 2012. pp 376-382.

Passent M El-Kafrawy. "Solving Classification and Curve Fitting Problems Using Grammatical Evolution" Vinu V. Das, Ezendu Ariwa, Syarifah Bahiyah Rahayu editors. In proceedings Signal Processing and Information Technology, SPIT 2011, LNICST 62 Springer. pp 29-33, 2011

Susan F Ellakwa, Passent M El-Kafrawy, Mohamed Amin, El Sayed ElAzhary. "Establishing Global Ontology by Matching and Merging" Vinu V. Das, Ezendu Ariwa, Syarifah Bahiyah Rahayu editors. In proceedings Signal Processing and Information Technology, SPIT 2011, LNICST 62 Springer. pp 76-83, 2011.

Susan Faisal Ellakwah, Passent El-Kafrawy, Mohamed Amin, El-Sayed El-Azhary. "Implementation of Establishing Global Ontology by Matching and Merging" The Eleventh Conference On Language Engineering, December 14-15, 2011, Cairo, Egypt (ESOLEC'2011).

Passent El-Kafrawy, and Amr M. Sauber. "Using Class Decomposition for Building GA with Fuzzy Rule-based Classifiers", Proceedings of 24th International Conference on Industrial Engineering & Other Applications of Applied Intelligent Systems IEA/AIE Lecture Notes in Computer Science Springer 2011.

Passent El-Kafrawy, and Amr M. Sauber "Multi-Objective GA rule extraction in a parallel framework". Proc of the 15th WSEAS International Conference on Computers, Greece , July 2011

Ismail I. Amr, Mohamed Amin , Passent El-Kafrawy, and Amr M. Sauber. "Arabic Character Recognition Using statistical Moment Invariants and ANN" The Tenth Conference on Language Engineering, December 16-17, 2010, Cairo, Egypt.

Susan Faisal Ellakwah, Passent El-Kafrawy, Mohamed Amin, El-Sayed El-Azhary. "Ontology and its Methodology" The Tenth Conference on Language Engineering, December 16-17, 2010, Cairo, Egypt.

Passent M. El-Kafrawy. Graphical Deadlock Avoidance. In Proceedings of the 2009 International Conference on Advances in Computing, Control, and Telecommunication Technologies (ACT '09). IEEE Computer Society, Washington, DC, USA, 308-312, 2009.

Passent el Kafrawy and Robert McCartney. Digital geometry and inter-diagrammatic reasoning. Proceedings of The International Conference of Statistics and Computer Science, Egypt 2005.

Passent el Kafrawy and Robert McCartney. Reasoning about 3d visibility using diagrams. Technical Report CSE, Un. of Connecticut 2005.

Robert McCartney and Passent el Kafrawy. Inter-diagrammatic reasoning and digital geometry. In Proceedings of Third International Conference, Diagrams 20004, volume LNAI 2980, pages 199- 215, Cambridge, UK, 2004.

PRESENTATIONS

Valeo 2019 Gate4SPICE Event "Future of ASPICE in High Technology Environments"

- Invited speaker "Automated Requirement Engineering using Semantic Knowledge".

IBRO ENND school since 2016-2019

- Keynote speaker and Machine learning workshop instructor for the Medical IBRO school 3 times a year, for the Egyptian Network for Neurodegenerative Diseases.

Invited Speaker

- "Personalized Medicine Meeting: from Discovery Science to the Patient", March 29, 2018 Organized by: Center for Genomics, Zewail City of Science and Technology.

GRANTS AND FELLOWSHIPS

- Dell EMC2, best teaching course “Big Data Analytics”, 2017, and 2018
- University of Connecticut, US, “Taylor L. Booth Graduate Fellowship”, 2004
- PreDoctoral Fellowship, 2002
- Student Travel Award, Third International Conference, Diagrams 2004, Cambridge, UK, Fall 2004.
- Graduate Research Assistantship, Summer 2003 – 2006.
- Graduate Teaching Assistantship, Fall 2001-Spring 2003
- Menoufiya University, Egypt, Student Scholarship to study abroad, by Egyptian Ministry of Cultural and Education, Fall 2000-2004.
- American University of Cairo, Egypt, Student Scholarship, Spring 1986- Spring 1990.

THESIS SUPERVISIONS

I had over 40 supervision from Master to PhD student through all universities that I joined.

Some Menoufia Students

PHD

- Feature Identification System using Genotype, Amr Elhadad 2018
- Machine Learning and Its Application to Genomics Data Science, Ibrahim Manharawy, 2018
- Gene Expression Data Analytics Using Classification Algorithm for Cancer Diagno, Hanaa Fathi 2018
- Modeling of Biological Phenomena using Membrane Computing, Amal Hassan Hashim 2018
- A Novel Framework for Large Scale Internet of Things towards a Smarter Recommendation System, May AbourGhazala 2017
- Trustworthy Map-Reduce Framework for Big Data, Amr Shawish, 2017
- Hadoop Framework for Big Data Analytics, Mohamed Hafez, 2017
- Deadlock Free in Multi-Resource Concurrency control, Mahmoud Saleh 2016-2020
- Toward Improving Knowledge Representation Techniques, Rasha Elnemr, 2014
- Security for Big Data in Cloud Computing Environment, Ahmed Sakr 2013-2016
- Improving CBR using Semantic knowledge on Medical System, Rania Ahmed 2013-2016
- Information Extraction from Web Documents, Noha Negm, since 2011-2014.
- Parallel Data Mining using Genetic Algorithms and Neural Networks, (major supervisor) Amr Mosad, 2009-2011.
- Establishing Dynamic Ontology for Agricultural Domain, Suzan Faisal, 2009-2012
- Selecting and constructing Rules using Genetic Programming and Grammatical Evolution, (major supervisor) Mohamed Nassif, 2009-2011.

- Emulator Construction for some Cipher systems using Neuro-identification, Khalid Abdallah 2008-2010.

Master

- Searching Encrypted Data in Cloud Computing, Sherin Azab Ismail 2016-2020.
- Agile Software Development Utilizing Cloud Computing Capabilities, Hagar Hamed Eldolel, 2015- 2019,
- Sound Recognition for bilingual classification, Hanan Hashem 2016
- Automated Generation of System Requirement by Means of Semantic Web, Mohamed Sorour, 2015-2018
- Security over Cloud Computing, Amr Shawish, 2014-2016
- An Algorithm for reducing call blocking probability in Cellular Networks, Hamdi ElFiky, 2016-2019
- A Distributed File System Architecture For Improving Big Data Analysis, Mohamed Hafez, 2014-2017
- A framework for arabic support in semantic web technology, Nada Ahmed, 2014
- Building an Arabic Corpus using Semantic Web, Fatma 2014
- An Efficient Semantic approach for classification of web documents, Dina Eldemrdash, 2014-2019
- Selection Based Analysis of Semantic Mobile Web Services [SMWS], Iman Nasar 2013-2015
- Classification of multi-label classes, Heba Ibrahim 2013 - 2015
- Enhancement of SOA Quality Assurance Techniques, Hanna Fathi, 2012-2015
- High performance volume rendering For 3D Medical visualization, (major supervisor) Mariana Barsoum 2009-2012.
- Knowledge Acquisition Using Rough Sets, (major supervisor) Ahmed Sobhi Bakry, 2008-2010.

PROFESSIONAL MEMBERSHIPS

- IEEE Senior member
- The Egyptian Society of Language Engineering, Egypt
- International Society of Applied Intelligence
- Egyptian Bioinformatics Society
- Arab Computer Society
- Engineers Network, IDES, India
- National Library of Medicine, US
- The Islamic Manuscript Association, University of Cambridge, UK Centre of Middle Eastern and Islamic Studies
- American Association of Artificial Intelligence, US
- Computer Science Teachers Association, US



RELEVANT SKILLS

HUAWEI HCIA

- **Big Data 2022**

IBM Skills Academy

- **Artificial Intelligence Analyst 2020**

National Authority for Quality Assurance and Accreditation of Education, 2015

- **Self Evaluation for Higher Educational Institutes**
- **Educational Programs and Courses Specification and Evaluation of Learning Outcomes**
- **Strategic planning for higher educational institutes**
- **External review for higher educational institutes**
- **Leadership in managing the Quality Accreditation Team**

American University, The Center for Learning and Teaching

- **Teaching Enhancement Certificate 1**
- **The Enhanced Lecture**
- **Technology to Support Good Practice in Undergraduate Education**
- **Designing Student-Centered Learning Outcomes**
- **Designing an Engaging Syllabus**
- **Introduction to Blended Learning and Flipped Classroom**

EMC2 Academic Alliance since 2013

- **Data Science and Big Data Analysis**
- **Cloud Computing**
- **Information Storage and Management**

REFERENCES



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