

1 Personal Data



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2 Career

Duration	Job Responsibilities
August 2014	Professor in Dept. of Computer Science. Faculty of Computers and Information.
February 2011	Full professor in Dept. of Computer Science. Faculty of Computers and Information.
March 2009 July 2014	Head of Computer Science Department, Faculty of Computers and Information, Cairo University.
October 2008	IT consultant, at National Center for Examinations and Educational Evaluation (NCEEE).
June 2002 till 2011	IT Consultant at Central Laboratory of Agricultural Expert System, National Agricultural Research Center.
March/2001	Associate Professor in Dept. of Computer Science, Faculty of Computers and Information, Cairo Univ.
June/2006 – September 2008	Head of Operations and Information Department (OID), National Center for Examinations and Educational Evaluation (NCEEE).
Oct/98 till march/2001	Assistant Professor in Dept. of Computer Science, Faculty of Computers and Information, Cairo Univ.
Nov. 1995 till Sep./98	Assistant Professor in Dept. of Computer Science and Information System, Institute of Statistical Studies and Research, Cairo Univ.

Duration	Job Responsibilities
Jan/1990 till Nov/1995	Assistant lecturer in Dept. of Computer Science and Information System Institute of Statistical Studies and Research, Cairo Univ.
Nov. 1985 till Jan. 1990	Demonstrator in Dept. of Computer Science and Information System, Institute of Statistical Studies and Research, Cairo Univ.
Nov. 1977 till May 1985	Agriculture engineer, at Soil and Water research Lab Ministry of Agriculture.

3 Experience

3.1 Academic tuition Experience

3.1.1 Teaching

- Hesham has got the responsibility of teaching the following courses:

Introduction to computer science

Operating System (basic course)

Operating System (advanced course)

Programming Languages (C++)

Data structure

Artificial Intelligence

Software Engineering (basic course)

Software Engineering (advanced course)

Knowledge-Based Systems

System Analysis and design

- Hesham has got the responsibility of teaching the following undergraduate courses, while he was working as Visitor professor at the United Arab Emarate University (U.A.E.) during the period of Sep/1999-Feb/2000.

System Analysis and Design

Fundamentals of Computer Science

Database

3.1.2 Academic Supervision

Hesham has been participated in the supervision on the following thesis:

1. Usage of Expert Systems in Scheduling. **M.Sc thesis** in Operation Research, from ISSR, Cairo University. Feb-1998.
2. Intelligent Search System for Bibliographic Services. **Ph.D. thesis** in Computer Science from ISSR, Cairo University. Feb-1999.
3. Automatic Knowledge Acquisition Tool for Scheduling Systems. **M.Sc thesis** in Computer Science, from ISSR, Cairo University. 1999.
4. A Knowledge Based System for Software Maintenance. **M.Sc thesis** in Computer Science from ISSR, Cairo University, 2000.
5. On the use of AI Technique for the Analysis of Discrete-Time Chain with Finite State Space. **Ph.D. thesis** in Statistics from department of Statistics, Faculty of Economic and Political Science, Cairo University, 2000.
6. Developing an expert System Tool based on Routine Design Generic Task, **M.Sc thesis** in Computer Science from ISSR, Cairo University. 2000
7. Computer-Based System for Unmanned air Vehicle Mission Planning, **M.Sc thesis** in Computer Science from ISSR, Cairo University. 2000.

8. A Multi-Agent System for Knowledge Discovery in Databases. **M.Sc thesis** in Computer Science from ISSR, Cairo University. 2001.
9. Toward The Automatic Construction of Knowledge Models, **M.Sc thesis** in Computer Science from ISSR, Cairo University. 2002.
10. Toward the construction of Knowledge-based System in legal reasoning. **M.Sc thesis** in Computer Science from ISSR, Cairo University. 2003.
11. Towards an Intelligent Model-Based Decision Support System For An Integrated Oil Company, **Ph. D thesis**, Faculty of Computers and Information Cairo University, 2004.
12. An Object-Oriented Framework and its Supported Tools for Building Banking Applications. **M.Sc thesis** in Computer Science from ISSR, Cairo University, 2004.
13. Scheduling Agent Architecture for Solving Course Timetabling. **M.Sc thesis** in Computer Science from ISSR, Cairo University. 2005.
14. Reusable Knowledge Components for Risk Assessment **M.Sc thesis** in Computer Science from ISSR, Cairo University. 2005.
15. Intelligent Information System for Jamming and anti-Jamming of electromagnetic Spectrum **Ph. D thesis**, Faculty of Computers and Information Cairo University, 2005.
16. Automating Software Inspection for Software Quality Assurance, **M.Sc thesis**, Faculty of Science, Cairo University, 2006.
17. Using advanced tools and techniques in system analysis, **M.Sc thesis** in Computer Science, Faculty of Science, Cairo University, 2006.

18. A Methodology for Constructing Knowledge Based Systems which answers different types of questions, **M.Sc thesis** in Computer Science from ISSR, Cairo University. 2007.
19. Extracting Ontology from Different Sources, **Ph. D thesis**, Faculty of Computers and Information Cairo University, 2007.
20. Towards Mining Web Content Outliers, **M.Sc thesis**, Faculty of Computers and Information Cairo University, 2007.
21. Automatic Generation of Explanation in Expert systems Represented using Different Knowledge Representation. **M.Sc thesis**, Faculty of Computers and Information Cairo University, 2008.
22. Intelligent Search Agent System on the Semantic Web, **M.Sc thesis**, Faculty of Computers and Information Cairo University, 2010.
23. Multi- Task knowledge Discovery System, Spectrum **Ph. D thesis**, Faculty of Computers and Information Cairo University, 2010.
24. Multi Agent framework for Intelligent Tutoring system, **M.Sc thesis**, Faculty of Computers and Information Cairo University, 2010.
25. Service Oriented Business Process Management System, **M.Sc thesis**, Faculty of Computers and Information Cairo University, 2010.
26. Formal Methods for Verification Techniques, **Ph.D. thesis** of Science in Mathematics (Computer Science), Department of Mathematics, Faculty of Science, Zagazig University, 2010.
27. Development of Business Applications Using Reuse-Based Technology, **M.Sc thesis**, Faculty of Computers and Information Cairo University, 2011.
28. Intelligent Document Management System, **M.Sc thesis**, Faculty of Computers and Information Cairo University, 2012.

29. An Aspect Oriented Web Services Composer, **M.Sc thesis**, Faculty of Computers and Information Cairo University, 2012.
30. Extracting Flexible Hyper-Spectral Crop Patterns, **PhD thesis**, Faculty of Computers and Information Cairo University, 2012.
31. Intelligent Security Engine for Service Oriented, **M.Sc thesis**, Faculty of Computers and Information Cairo University, 2013.
32. Intelligent Security Engine for Service Oriented, **M.Sc thesis**, Faculty of Computers and Information Cairo University, 2013.
33. Development of an Intelligent GIS for Spatial Data Analysis, **M.Sc thesis**, Faculty of Computers and Information Mansora University, 2013.
34. intelligent modeling and processing of cancer data using fuzzy techniques, **M.Sc thesis**, Faculty of Computers and Information Cairo University, 2014.
35. Service-Oriented Grid for Intelligent Dynamic Virtual Organizations, **PhD thesis**, Faculty of Computers and Information Cairo University, 2014.

3.1.3 Conference Attendance and Participation

- The annual conferences on statistics, computer science and operation research, ISSR, Cairo University, during the period of 1996-2000.
- The international conferences on AI applications. Organized by the AUC at Egypt, during the period of (1997-2000).
- The 9th international conference on software engineering and knowledge engineering. SWKE'97. Spain.
- Sixth International Conference on Development of Dry Areas, 1999.

- 11th Annual Conference of Statistics Department and Center of Information and Computing Systems. Cairo 26-27 October 1999.
- A Workshop on Regional Information System for the West Asia and North Africa Region, October 2-4, 2000.
- The Second International Conference on Informatics and Systems, INFOS 2004, Cairo 6-8 March.
- Member in the organization committee in the fifth workshop on artificial intelligence in agriculture, Cairo, Egypt, 8-10 March 2004.
- The annual conferences on statistics, computer science and operation research, ISSR, Cairo University, 2005.
- Fourth International Conference, Faculty of computers and information, Cairo university INFOS200625-27 March 2006
- The annual conferences on statistics, computer science and operation research, ISSR, Cairo University, 2006.
- Fifth International Conference, Faculty of computers and information, Cairo University INFOS2007 March 2007.
- Sixth International Conference, Faculty of computers and information, Cairo University INFOS2008 March 2008.
- Seventh International Conference, Faculty of computers and information, Cairo University INFOS2010 March 2010.
- Eights International Conference, Faculty of computers and information, Cairo University INFOS2012.

3.2 Applied Research Projects

Hesham has been participated in the following software and knowledge engineering activities:

- Designing and implementing a Bilingual Expert System Shell, while he was preparing his M.Sc.

- Acquiring the knowledge from domain experts (using different techniques and methods), analyzing, and designing the expert systems for Citrus (CITEX), Cucumber (CUPTEX), and Tomato (TOMATEX) production management using either KADS or CommonKADS methodology. He gained part of his experience while he was supervising a knowledge engineering group in an international project, at Egypt, and sponsored by FAO (UNDP) and MOLAR1 on the development of Expert systems in the domain of Agriculture.
- Developing a new and general framework for library-driven knowledge modeling and representation of reusable ontology.
- Developing a complete library for Assessment Task which contains: methods, tasks, ontology, and domain models, in addition he developed an interactive configuration tool (OBELICS+)² for assembling an adequate model for a specific application features.
- Participating in the KADS-II project³, in which CommonKADS was developed, while he was a Ph.D. guest researcher at Swedish Institute of Computer Science (SICS) during the period from March 1993 to June 1995.
- Working as principal investigator for Cherry Tomato Expert System ATUT Project No. 131, Egyptian Ministry of Agriculture and Land Reclamation. (ATUT—US fund)
- Working as technical Coordinator for expert system development team for developing expert system for Cattle & Buffalo health care.

¹Egyptian Ministry of Agriculture and Land Reclamation.

²This tool is built on the top on SICStus Object Prolog.

³An European project funded by the ESPRIT Program for constructing a general KBS development methodology.

- Working as Technical Coordinator for expert system development team for developing expert system for Sheep and Goat health care.
- Hesham has been involved in a project called ESMDUWC for the usage of Expert System technology in minimizing damages that might be caused by unfavorable weather. (ATUT—US fund)
- Hesham has the responsibility to supervise the expert system developments for the following crops: Rice, Bean, Faba-Bean, Strawberry, Grapes, Mango, Artichoke, and Melon.
- Hesham has participated in Rural and Agricultural Development Communication Network in Egypt (RADCON), while he was working as technical consultant for the central laboratory of agricultural expert systems (CLAES).
- Hesham has participated in The Virtual Extension, Research and Communication Network (VECON), while he was working as technical consultant for the central laboratory of agricultural expert systems (CLAES).
- Designing an Irrigation and Fertilization scheduling knowledge acquisition tool for the central laboratory of Agricultural Expert systems.
- Hesham is the technical Coordinator as well as software engineer for the National Project for Numbering Cattle and Buffalo across Directorates.
- Hesham is the technical Coordinator Expert Systems for Improved Crop Management.
- Designing a Knowledge management tool for diagnosis tasks.
- Intelligent Planning system for Ministry of planning in Kuwait. 2008.
- Hesham is the technical Coordinator for Item Bank Project. At NCEEE, 2007-2008.

- Hesham is the technical Coordinator for Online informative assessment project at NCEEE. 2007-2008.
- Hesham is a member of Extendable Architecture and Service Infrastructure for Cloud-Aware Software (EASI-CLOUDS) which is a globally competitive open and trusted cloud eco-system to empower European society, industry and research. (Project started 1-10-2012 for expected time period 1 year).
- Hesham is a member of Joint Masters of Software Engineering JMSE project which is funded by TEMPUS for three years started October 2012.

4 Education

1. Ph.D., in Computer Science and information, Dept. of Computer Science and Information, ISSR, Cairo University (Dual, supervision Cairo-Sweden 1995).

Title: “knowledge modeling and representation using logic programming and constraint-based approach”.

Supervisors:

- a. Prof. Moktar Boshra Riad (ISSR, Cairo University)
- b. Prof. Ahmed Rafea (ISSR, Cairo University)
- c. Prof. Seif Haridi (Swedish Institute of Computer Science (SICS)).

2. M.Sc. in Computer Science and information, Dept. of Computer Science and Information, Institute of Statistical Studies and Research ISSR, (1989).

Supervisors:

- a. Prof Ibrahim Farag (ISSR, Cairo University)
- b. Prof. Ahmed Rafea (ISSR, Cairo University)

Title: *'Bi-lingual expert system building tool'*

3. Postgraduate diploma in Computer Science and Information, Dept. of Computer Science and Information, Institute of Statistical Studies and Research (1984).
4. Bachelor of Agriculture Science, Faculty of Agriculture, Cairo University, 1975.

5 Attended Courses

Hesham was nominated to attend intensive training courses for four months at George Mason University, Washington, D.C., USA, during the period from Jan. 1990 to May 1990, in the following topics:

- Machine Learning
- Knowledge Acquisition
- Expert System Design
- Decision support Systems

6. Publications

6.1 Papers Published In Refereed Journals

6.1.1 International Journal Papers

1. Rafea, A., El-Dessouki A., **Hassan A. Hassan**, Mohammed, S., *Development and Implementation of a Knowledge Acquisition Methodology for Crop Management Expert Systems*, Computers & Electronics in Agriculture, Elsevier Computers and Electronics in Agriculture Volume 8, Issue 2, March 1993, Pages 129-146.
2. EL-Sayed El-Azhary, **Hesham A. Hassan**, and A. Rafea, *Pest Control Expert System for Tomato (PCEST)*. Journal of Knowledge and Information Systems (KAIS). Springer-Verlag (publisher). 2:242-257, 2000.

3. Ahmed Rafea, **Hesham A. Hassan**, Maryam Hazman, *Automatic Knowledge Acquisition tool for irrigation and fertilization expert systems*, Expert Systems with Applications Volume 24, Issue 1, January 2003, Pages 49-57.
4. Mohamed Y. Dahab, **Hesham A. Hassan**, A. Rafea, *TextOntoEx: Automatic Ontology Construction from Natural English*. Expert Systems with Applications, Volume 34, Issue 2, February 2008, Pages 1474-1480.
5. Ahmed Fouad, Ahmed Rafea, **Hesham A. Hassan**, and Samhaa R. El-Beltagy, *Automatic generation of explanation for expert systems implemented with different knowledge representations*, WSEAS TRANSACTIONS on SYSTEMS, Volume 8, Issue 1 (January 2009), Pages 55-64, Year of Publication: 2009.
6. **Hesham A. Hassan** and Z.E. Yousif, *Model Driven Testing: Using PIM Static and Dynamic Behavior Mathematical Formalization*, World Information Technology Journal 3(1): 01-10, 2009, ISSN 1818-4944, © IDOSI Publications, 2009.
7. **Hesham A. Hassan**, Z. E. Yousif, *Test Cases Generation Using a Mathematical Representation for the Dynamic Behavior of PIM*, journal of Mathematics and Technology (JMT), ISSN:2078-0257, April, 2010.
8. **Hesham A. Hassan**, Zahraa. E. Yousif, *generating test cases for platform independent model by using use case model*, International Journal of Engineering Science and Technology, Vol. 2(12), 2010, ISSN:7665-7675.
9. Muhammad H. Zedan, **Hesham A. Hassan**, Samhaa R. El-Beltagy, and Ahmed A. Rafea, *A Model for Aligning Assessment Items*, Canadian Journal on Data, Information and Knowledge Engineering Vol. 2, No. 1, January 2011.

10. Abdelrahman M. ElSayed and **Hesham A. Hassan**, *Dynamic Web Services Composition - An Aspect Oriented Approach*, CiIT International Journal of Networking and Communication Engineering, ISSN 0974 – 9713 & Online: ISSN 0974 – 9616, Issue : September 2011.
11. Muhammad H. Zedan, **Hesham A. Hassan**, Samhaa R. El-Beltagy, Ahmed A. Rafea, *A Model for Aligning Assessment Items*, Canadian Journal on Data, Information and Knowledge Engineering Vol. 2, No. 1, January 2011.
12. Morcouc M. Yassa, **Hesham A. Hassan**, Fatma A. Omara, *New Federated Collaborative Networked Organization Model (FCNOM)*, International Journal of Cloud Computing and Services Science (IJ-CLOSER), Vol.1, No.1, March 2012, pp. 1~10, ISSN: 2089-3337.
13. Galal, A., **Hassan A. Hassan**. and Imam, F. “*Learning Flexible Hyperspectral Features.*” International Journal of Remote Sensing Applications, (2012), ISSN: 2226-4361, Vol. 2(2), June 2012.
14. Galal, A., **Hassan, H.** and Imam, F. “*A Novel Approach for Measuring Hyperspectral Similarity*” Applied Soft Computing Journal, Volume 12, Issue 10, October 2012, Pages 3115–3123.
15. Morcouc M. Yassa, **Hesham A. Hassan**, Fatma A. Omara,” *Virtual Business Collaboration Conceptual Knowledge Model (VBCKM)*”, International Journal of Cloud Computing and Services Science (IJ-CLOSER), Vol. 1, No.3, August 2012, pp. 148~154, ISSN: 2089-3337. (Published by Institute of Advanced Engineering and Science).
16. **Hesham A. Hassan**, Hazem El-Bakry, Hamada Gaber Abd Allah, *Visualization for levels of animal diseases by integrating*

- OLAP and GIS. International Journal of Computer Science and Information Security Publication July 2012, Volume 10 No. 7.
17. **Hesham A. Hassan**, Mohamed Yehia Dahab, Hussein Elsayed Abla, Development of an Intelligent GIS application for spatial Data analysis, International Journal of Computer Science and Information Security (IJCSIS), Vol. 11, No 4, pp. 44-49. 2013.
 18. Amr Galal, **Hesham A. Hassan**, Creating enhanced Wikileaks International Journal of Information & Network Security (IJINS), Vol.2, No2, 2013, pp. 118-123, ISSN: 2089-3299.
 19. **Hesham A. Hassan**, Hazem M. El-Bakry, Hamada G. Abd Allah, Design of Multi-Criteria Spatial Decision Support System (MC-SDSS) for Animal Production, IAES International Journal of Artificial Intelligence (IJ-AI), Vol. 2, No 3: September 2013.
<http://iaesjournal.com/online/index.php/IJAI/index>.
 20. Mohammed Said, Osama Ismail, **Hesham Hassan**, Web Service Composition and Legacy Systems: A Survey, International Journal of Computer Applications, (IJCA), Volume 69 - Number 17, 2013.
 21. Muhammad H. Zedan, **Hesham A. Hassan**, An Aligned Assessment Item Authoring Environment based on Interoperability Standards, International Journal of Modern Education and Computer Science (IJMECS), Vol.5, No. 12, December 2013.
 22. Samy Gerges, Sherif Khattab, **Hesham Hassan**, Fatma A Omara, Scalable Multi-Tenant Authorization in Highly-Collaborative Cloud Application, international Journal of Cloud Computing and Services Science (IJ-CLOSER) 01/2013; 2:106-115.
 23. Yassa, M. M., **H. A. Hassan**, and O. Fatma, Utilizing CommonKADS as Problem-Solving and Decision-Making for

Supporting Dynamic Virtual Organization Creation, IAES International Journal of Artificial Intelligence (IJ-AI), Vol. 3, no. 1, pp. 1, 2014.

24. Mohammed Said, Maryam Hazman, **Hesham Hassan**, Osama Ismail, GenericSOA: a Proposed Framework for Dynamic Service Composition, IJCSI International Journal of Computer Science Issues, Vol. 11, Issue 2, No 1, March 2014, PP. 94-99, ISSN (Print): 1694-0814 | ISSN (Online): 1694-0784, www.IJCSI.org.
25. Mahmoud Othman, **Hesham Hassan**, Ramadan Moawad and Abeer El-Korany, Opinion Mining and Sentimental Analysis Approaches: A Survey, Life Science Journal, Vol. 11(4), PP. 321-326, 2014.

6.1.2 National Journal Papers

26. **Hesham A. Hassan**, Seham, M., Abboud, and Mokhtar B., Riad. An Architecture for Intelligent Bibliographical Retrieval System. The Egyptian Computer Journal. ISSR, Cairo University, Volume (26), No. 1, 1998. June 1998.
27. **Hesham A. Hassan**, Y. Abdelhamid and A. Rafea. Reusable Scheduling Model in Agriculture Domain. The Egyptian Computer Journal, ISSR, Cairo University, Volume (26), No. 2, December 1998.
28. **Hesham A. Hassan**. Method-to-Task Topology in Agricultural Domain. The Egyptian Computer Journal. ISSR, Cairo University, Volume (28), No. 1, June 2000.
29. Mohamed Osama, **Hesham A. Hassan**, Khaled, Shallan, and Mokhtar Boshra Riad. A Prototype for an Intelligent Information System for Jamming and anti-Jamming of electromagnetic Spectrum. Egyptian Informatics Journal, Volume, 5, No 2, 2004.

30. Motaz Khorshid, **Hesham A. Hassan**, and Mohamed Abdel Hamied, *Intelligent Approaches to Model Management Systems: A Survey*, The Egyptian Computer Journal, Volume 32, No. 2, 2004.
31. Amr Kamel, **Hesham A. Hassan**, Ghassan Saket, *Supporting Model Transformation Using Mathematical Representation: Representing Platform Specific Model (PSM) Mathematically*, The International Journal of Intelligent Computing and Information Sciences, Volume 8, Number 1, January 2008.
32. Amr Kamel, **Hesham A. Hassan**, Ghassan Saket, *Supporting Model Transformation Using Mathematical Representation: Representing Platform Independent Model (PIM) Mathematically*, Egyptian Informatics Journal, Vol. 10, No. 1, PP, 1-327, June 2009.
33. Mohamed Y. Dahab Amira Edrees, **Hesham, A. Hassan**, Ahmed, Rafea, *Pattern Based Concept Extraction for Arabic Documents*, the International Journal of Intelligent Computing and Information Sciences, Volume 10, number 2, July 2010.
34. Majid A. Askar, **Hesham A. Hassan**, and Samhaa R. El-Beltagy, *Semantic Web Based Search Agent System*, Journal of Engineering Sciences, Faculty of Engineering , University of Assiut, Egypt, Volume. 38, Number 4, July, 2010.
35. Amr Kamel, **Hesham A. Hassan**, M. Adel, *Service Oriented Policy Based Business Process Management*, The International Journal of Intelligent Computing and Information Sciences, Volume 10, number 2, July 2010.
36. **Hesham A. Hassan**, *Knowledge Representation And Reasoning Using Standard Web Languages For Risk Analysis*, the International Journal of Intelligent Computing and Information Sciences, 2011.

37. **Hesham A. Hassan**, Moahmoud Samy, *Ontology-Based: Intelligent Document Management System*, Journal of Al Azhar University Engineering Sector (JAUES), ISSN: 1110-6409, 2011.
38. Hussein Hakem Hussein, **Hesham A. Hassan**, *Grammar-Based Business Validation Rules Testing Applied In Auto Loan Banking System*. The International Journal of Intelligent Computing and Information Sciences, 2011.
39. Galal, A., **Hesham A. Hassan**, H. and Imam, F. "*Learnable Hyperspectral Measures*." Egyptian Informatics Journal, Vol.13, Issue 2, 2012.
40. Basem , Hehsm hefny, **Hesham A. Hassan** , *An extension of fuzzy decision maps for multi-criteria decision-making*, Egyptian Informatics Journal, Volume 14, Issue 2, Pages 99-182 (July 2013).

6.2 Papers Published In Refereed Conference Proceedings

6.2.1 International Conferences

41. Orsvarn K., Olsson O., and **Hassan A. Hassan**." *Guidelines for Adapting an Interpretation Model in an Application*. In Proceedings of Knowledge Engineering Forum 95. Concepts and Architecture for Reuse, Sankt Augustin, Germany, March 1995.
42. Y., Abdelhamid, **Hesham A. Hassan**, and A. Rafea. *An approach to automate KBS Construction from Reusable Domain-Specific Components*. 9th International Conference on Software Engineering and Knowledge Engineering, SEKE'97 Madrid, Spain, June 17-20, 1997.
43. Tanira, A., Rafea, A., and **Hassan A. Hassan**. 2008. *FindWDO: a k-nearest neighbors approach for detecting Web document outliers*. In Proceedings of the Fourth IASTED international Conference on Advances in Computer Science and

Technology (ACST 2008) (Langkawi, Malaysia, April 02 - 04, 2008). S. K. Sahni, Ed. ACTA Press, Anaheim, CA, 183-188, ISBN CD 978-0-88986-730-7.

44. Said, A. F., Rafea, A., **Hesham A. Hassan**, and El-Beltagy, S. R. 2008. *AESGT extension to support explanation facilities that answers "how", and "why asking" types of questions.* In Proceedings of the 8th Conference on Applied Computer Science (Venice, Italy, November 21 - 23, 2008). S. C. Misra, R. Revetria, L. M. Sztandera, M. Iliescu, A. Zaharim, and H. Parsiani, Eds. World Scientific and Engineering Academy and Society (WSEAS), Stevens Point, Wisconsin, 436-444.
45. Muhammad H. Zedan, **Hesham A. Hassan**, Samhaa R. El-Beltagy, Ahmed A. Rafea, *An Aligned Assessment Item Authoring Environment based on Interoperability Standards*, 13th IEEE Joint International Computer Science and Information Technology Conference (JICSIT 2011).
46. Ayman H. Tanira, Ahmed A. Rafea, **Hesham A. Hassan**, *A Density-Based Approach with VSM and Weighted N-Grams for Detecting Web Document Outliers*, 24th International Conference on Computers and Their Applications in Industry and Engineering (CAINE-2011). November 16-18, 2011.
47. **Hesham A. Hassan**, Hazem El-Bakry, Hamada Gaber Abd Allah, *A New Approach for Computing Levels of Animals Diseases.* Advances in Computer Science, Proceedings of the 6th WSEAS European Computing Conference (ECC '12) Prague, Czech Republic, September 24-26, PP. 281-290, ISBN: 978-1-61804-126-5. 2012. <http://www.wseas.us/e-library/conferences/2012/Prague/ECC/ECC-00.pdf>
48. **Hesham A. Hassan**, Hazem El-Bakry, Hamada Gaber Abd Allah, *A Novel Spatial Decision Support System for Improving*

- Animal Production*, World Scientific and Engineering Academy and Society(WSEAS), Cambridge, UK, February 20-22, 2013.
49. Eman Hossny, Sherif Khattab, Fatma Omara, **Hesham Hassan**, *A Case Study for Deploying Applications on Heterogeneous PaaS Platforms* , In proceeding of: 2013 IEEE International Conference on Cloud Computing and Big Data (CloudCom-Asia), At China, 2013.
50. Mohamed M. A., Galal-Edeen, G. H. and, **Hesham Hassan**, “*Towards Adoption of Government Enterprise Architecture: The Cases of Egypt and Syria*”, 13th European Conference on eGovernment – ECEG 2013, Italy, 13-14 June 2013.
51. Elomda, B. M., Hefny, H.A., **Hesham A. Hassan**, *MCDM method Based on Improved Fuzzy Decision map*, in IEEE international Conference on Electronics, Circuits and systems (ICECS 2013), Abu Dhabi, UAE, December 8-11, PP. 225-228, 2013.
52. Muhammad H. Zedan, **Hesham A. Hassan**, *Test Construction Tool based on Interoperability Standards*, The second International Conference on Engineering and Technology (ICET 2014). Available online IEEE Explore digital Library.
53. Elomda, B. M., Hefny, H.A., **Hesham A. Hassan**, Maryam Hazman, *Multi-Level Linguistic Fuzzy Decision Network Hierarchical Structure Model for MCDM*, 10th International Conference, ICIC 2014, Taiyuan, China, LNAI 8589, PP. 220-229, 2014, Springer international Publishing Switzerland, August 3-6, 2014.
54. Elomda, B. M., Hefny, H.A., **Hesham A. Hassan**, Maryam Hazman, *Multi-Level Linguistic Fuzzy Decision Network Hierarchical Structure Model for Crop Selection*. *Intelligent Systems'2014*, proceeding of the 7th IEEE international Conference

- Intelligent Systems IS 2014, September 24-26, 2014, Warsaw, Poland, Vol. 2: tools, Architecture, Systems, Applications. PP. 497-508, Springer international Publishing Switzerland, August 3-6, 2015.
55. Elomda, B. M., Hefny, H.A., **Hesham A. Hassan**, *Fuzzy cognitive Map with Linguistic values*, 2014 International Conference on Engineering and Technology (ICET 2014), Cairo Egypt, April 19-20.2014.
56. Elomda, B. M., Hefny, H.A., Maryam Hazman, **Hesham A. Hassan**, *An Enhanced Method for MCDM Based on Improved Fuzzy Decision Map*, International Conference on Management computational and collective intelligence in digital EcoSystems (ACM MEDES'14), September 15-17, Buraidah AL Qassim, Saudi Arabia, 2014.
57. Elomda, B. M., Hefny, H.A., Ashmawy, F. Maryam Hazman, **Hesham A. Hassan**, *Selection of Rice Variety Using Improved LFDN Method*, the 9th International Conference (INFOS 2014) 1416 December 2014, Cairo Egypt.
58. Rafea A. and **Hesham A. Hassan**. *Experience with the Design and Implementation of an Expert system Building Tool*. The 24th annual Conference on Statistics, Computer Science and Operation Research. ISSR, Cairo University, December 1989.
59. Rafea A., El-Dessouki A., **Hesham A. Hassan**, and S. Mohamed. *A Knowledge Acquisition Methodology for Crop Management Expert Systems*, First National Expert Systems and Development. Workshop (ESADW-91), February 1991, MOLAR, Cairo, Egypt.
60. Rafea A., **Hesham A. Hassan**, S. Edrees, M. Mahmoud S. El-Azhary, K. Tawfik, I. Ibrahim, and M. Mishref. Experience with

- KADS as Expert Systems Development Methodology for Crop Production Management, ESADW-93, May 1993, MOLAR, Cairo, Egypt.
61. A. I. Salah, **Hesham A. Hassan**, K. Tawfik, I. Ibrahim, and H. Farahat. CITEX: An Expert System for Citrus Crop Management, ESADW-93, May 1993, MOLAR, Cairo, Egypt.
 62. Abdelhamid Y., **Hesham A. Hassan**, Rafea, A. A Proposed Methodology For Expert System Engineering, 5th International conference on artificial intelligence applications ICAIA-97, Egyptian Computer Society (EGS), Cairo, Egypt, 27 Feb.- 3 March, 1997.
 63. Y. Abdelhamid, **Hesham A. Hassan**, Soliman A. Edrees, N., EL-Sayed El-Azhary, Mostafa M. and A. Rafea, Knowledge Sharing Approach for Multi-Crops Plant Care Expert System, 6th International Conference on Artificial Intelligence Applications. ICAIA-99, Egypt, Feb. 1999.
 64. Y., Abdelhamid, **Hesham A. Hassan**, and EL-Sayed El-Azhary. An Expert System for Cattle and Buffalo Health Management, 7th International Conference on Artificial Intelligence Applications. 7th ICAIA-99 Egypt. Vol. 1, Feb. 1999.
 65. Wagih, S. I., Zaher, A. M. and **Hesham A. Hassan**. On the use of AI Technique for the Analysis of Discrete-Time Chain with Finite State Space, The Proceeding of the 11th Annual Conference of Statistics Department and Center of Information and Computing Systems. Cairo 26-27 October 1999.
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6.3 Technical Reports

- Amendment Of Generic Irrigation Design Applied In Bean Crop (BEANEX)
- Amendment Of Generic Irrigation Design Applied In Strawberry Crop (STRAWBEX)
- Cherry Tomato Post Harvesting Implementation Report
- Database Implementation Report For Tomato & Cucumber
- Generic Irrigation Design Applied In Tomato Crop
- Implementation Of Irrigation Design Amendment For Melon Crop In Open Field
- Implementation Of Irrigation System For Bean Crop In Open Field (BEANEX)
- Implementation Of Irrigation System For Strawberry Crop In Open Field (STRAWBEX)
- Implementation Report Of Cherry Tomato Disorder Diagnosis (CHERRY TOMATEX)
- Irrigation Design Amendment For Melon Crop In Open Field (MELONEX)
- Irrigation Implementation Of Tomato Crop
- Requirements Specifications Of The Tomato Disorders Diagnosis & Treatment

- Reviewing & Updating the Comments Of The Bean Irrigation Expert System
- Reviewing & Updating The Comments Of The Irrigation Subsystem For Melon Cultivated In
- Reviewing & Updating The Comments of The Irrigation Subsystem of Tomato (TOMATEX)
- A Methodology for Building a Generic Plant Care Model
- Requirement Specifications for Dependency Graph Editor
- “BOVIS” Requirement Analysis
- Revised Plant Care Design Of Artichoke Expert System
- Revised Plant Care Design Of Melon Expert System
- Generic Integrated Design for Irrigation and Fertilization Applied on Tomato

7 . Conference Organizing Committee Member

- Fifth International Workshop on Artificial Intelligence in Agriculture (AIA'2004), IFAC/CIGR, March 8-10, 2004.
- Session Chairs, in the 7th international conference in informatics and Systems (INFOS 2010).
- 4th International Conference, Faculty of computers and information, Cairo University INFOS2007.
- Co_Chair for the Fifth International Conference on Informatics & Systems INFOS2008.
- Chair for the International Conference on Informatics & Systems INFOS2009.

8 . Academic Reviewing

- The Egyptian Computer Journal, Institute of Statistical Studies & Research (ISSR), Cairo University.

- Egyptian Informatics Journal faculty of computers and information Cairo University.

9 . Conference & Workshop Reviewing

- Annual conference on Statistics, Computer Science and Operation Research, Institute of Statistical Studies & Research (ISSR), Cairo University.
- International Conference on Informatics and Systems (INFOS 2010), Faculty of Computers & Information, Cairo University.
- International Conference on Informatics and Systems (zINFOS 2012), Faculty of Computers & Information, Cairo University.

10 . Current Research Interests

The following are my current research interests:

1. Knowledge modeling, sharing and reuse
2. Intelligent information retrieval,
3. Intelligent Tutoring systems,
4. Decision support systems.
5. Software Engineering.
6. Knowledge discovery
7. Text summarization
8. Cloud Computing
9. Service Oriented Architecture (SOA)