

# CURRICULUM VITAE

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## EDUCATION

- Ph.D. in Computer Science, Case Western Reserve University, U.S.A., August 1991
- MSc. in Computer Science, Case Western Reserve University, U.S.A., January 1988
- BSc. in Computer Science, University of Constantine, Algeria, June 1984

## EXPERIENCE

- Department Chair and Professor, Computer Science, College of Computing and Informatics, University of Sharjah, UAE, 09/2021 to Present.
- Department Chair and Professor, Computer Science and Software Engineering, College of IT (CIT), UAE University, UAE, 08/2020 to July 2021.
- Professor, Computer Science and Software Engineering, College of IT (CIT), UAE University, UAE, 06/2018 to 08/2020.
- Associate Professor, Computer Science and Software Engineering, College of IT (CIT), UAE University, UAE, 02/2009 to 05/2018.
- Associate Professor, Computer Science, University of Sharjah, 09/1999 to 01/2009
- Department Chair and Associate Professor, Computer Science, University of Sharjah, UAE, 09/2003 to 08/2006
- Assistant Professor, Computer Science, Sultan Qaboos University, Oman, 01/1997-08/1999
- Visiting Assistant Professor, Computer Eng. & Science, Case Western Reserve University, USA, Summer 1995
- Lecturer, Computer Science, Sultan Qaboos University, Oman, 08/1992 to 12/1996
- Assistant Professor, Computer Eng. & Science, Case Western Reserve University, USA, 08/1991 to 07/1992
- Instructor, Computer Eng. & Science, Case Western Reserve University, USA, Summer 1990
- Research Assistant, Computer Eng. & Science, Case Western Reserve University, USA, 09/1990 to 05/1991
- Teaching Assistant, Computer Eng. & Science, Case Western Reserve University, USA, 09/1987 to 05/1990
- Consultant, Behavior Therapy Clinic, University Hospital, USA, 01/1987 to 09/1987
- Teaching Assistant, Computer Science, University of Constantine, Algeria, 09/1983 to 06/1984

# RESEARCH

## Publication

1. H Lakhlef, J Bourgeois, S Harous, T El-Ghazawi, "Communication and Security in Communicating Things Networks", [Special Edition of Ad Hoc Networks](#), Elsevier, Vol 98, 2020.
2. M. Benyoucef, S. Harous, special edition of Journal of Innovation in Digital Ecosystems (JIDE), Elsevier, vol. 1, issue 1-2, ISSN 1796-2021, December 2014.
3. B. Belkhouche, S. Harous, special edition of Linguistica Communicatio, Vol. VI, 2014.
4. O. Al Motairy, R. Chbeir, M. Alodib, L. Laouamer, Y. Badr, M. Benyoucef, S. Harous, I. Biskri, The International Conference on Management of computational and collective Intelligence in Digital EcoSystems, Al Qassim, Saudi Arabia, September 15-17, ACM Digital Library, 2014
5. S. Harous, V. Beiu, edited proceedings of the IEEE sponsored Tenth International Conference on Innovations in Information Technology, Al Ain, U.A.E, November 9-11, IEEE, ISBN 978-1-4799-7212-8, 2014
6. S. Harous, F. Sallabi, edited proceedings of the IEEE sponsored Seventh International Conference on Innovations in Information Technology, Abu Dhabi, U.A.E, April 25-27, IEEE, ISBN 978-1-4577-0314-0, 2011

## Book Chapters

1. S. Malik, S. Harous, H. El-Sayed, "Comparative Analysis of Machine Learning Algorithms for Early Prediction of Diabetes Mellitus in Women", Modelling and Implementation of Complex Systems, MISC 2020. [Lecture Notes in Networks and Systems](#), pp. 95-106, Vol 156. Springer, 2021.
2. F. Zitouni, S. Harous, R. Maamri, "A Distributed Solution to the Multi-Robot Task Allocation Problem Using Ant Colony Optimization and Bat Algorithm", International Conference on Modelling, Simulation & Intelligent Computing, [Advances in Machine Learning and Computational Intelligence](#), pp. 477-490, Dubai, UAE, January 29-31, 2020.
3. Y. Harbi, Z. Aliouat, S. Harous, A. Bentaleb "Secure Data Transmission Scheme Based on Elliptic Curve Cryptography for Internet of Things", Modelling and Implementation of Complex Systems. MISC 2018. [Lecture Notes in Networks and Systems](#), pp. 34-46, Vol 64. Springer, 2018.
4. M. Djoudi, S. Harous, "Text Entry System for Semitic Languages on Mobile Devices", Chapter LIV, Handbook of Research on Mobile Multimedia, Second Edition, ISBN: 978-1-60566-046-2, Idea Group Reference, September 2008.
5. S. Harous, Q. Nasir, "Routing Algorithms for Mobile Ad Hoc Networks", Chapter XI, Handbook of Research on Mobile Multimedia, Second Edition, ISBN: 978-1-60566-046-2, Idea Group Reference, September 2008.
6. M. Djoudi, S. Harous, "Portable MP3 Players for Oral Comprehension of a Foreign Language", Chapter XXV, Handbook of Research on Mobile Multimedia, ISBN: 1-59140-866-0, Idea Group Reference, May 2006.

7. L. Khezzar, S. Harous, and M. Benayoune, "Software Engineering Issues in the Design of an Upwardly-Complex Water Network Analysis Program", Chapter 4 in Applied Modeling of Urban Water Systems, Monograph 8, ISBN: 0-09683681, 2000.

## Journal

1. F. Zitouni, S. Harous, A. Belkeram, L. E. Baba Hammou, "The Archerfish Hunting Optimizer: a novel metaheuristic algorithm for global optimization", Arabian Journal for Science and Engineering, 2021. [ISI IF: 1.711]
2. M. Smara, M. Aliouat, S. Harous, "Robustness Improvement of Component-based Cloud Computing Systems", Journal of Supercomputing, 2021. [ISI IF: 2.474]
3. Y. Harbi, Z. Aliouat, A. Refoufi, S. Harous, "Recent security trends in Internet of Things: a comprehensive survey", IEEE ACCESS, Vol. 9, pp. 113292-113314, 2021. [ISI IF: 3.745]
4. S. Hebal, D. Mechta, S. Harous, "Energy Routing Challenges and Protocols in Energy Internet: A Survey", Journal of Electrical Engineering & Technology. [ISI IF: 0.736]
5. A. Djenna, S. Harous, D. Saidouni "Internet of Things meet Internet of Threats: New ConcernCyber Security Issues of Critical Cyber Infrastructure", Applied Sciences, Vol. 11, No 10, 4580, 2021. [ISI IF: 2.679]
6. R. Belmahdi, D. Mechta, S. Harous, "A Survey on Various Methods and Algorithms of Scheduling in Fog Computing", Ingénierie des Systèmes d'Information, Vol. 26, No. 2, pp. 211-224, 2021. [SJR: 0.170]
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8. F. Zitouni, S. Harous, R. Maamari, "A Novel Quantum Firefly Algorithm for Global Optimization", Arabian Journal for Science and Engineering, Vol 46(9), pp. 8741-8759, 2021. [ISI IF: 1.711]
9. H. Goumidi, Z. Aliouat, S. Harous, M. Gueroui, "Lightweight Secure Authentication and Key Distribution Scheme for Vehicular Cloud Computing", Symmetry, Vol. 13(3), 484(1-30), 2021. [ISI IF: 2.645]
10. M. S. Bata, H. Mabed, Z. Aliouat, S. Harous, "A New Distributed Multi-Hop Clustering Approach based on Neighbors Two-hop Connectivity for IoT Networks", Sensors, Vol. 21(3), 873(2-28), 2021. [ISI IF: 3.275]
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12. F. Zitouni, R. Maamari, S. Harous, "Towards a Formal Analysis of the Multi-robot Task Allocation Problem using Set Theory", Bulletin of Electrical Engineering and Informatics, Vol. 10, No. 2, pp. 1092-1104, 2021. [SJR: 0.23]
13. S. Fenanir, F. Semchedine, S. Harous, A. Baadach, "A Semi-Supervised Deep Auto-Encoder based Intrusion Detection for IoT", Ingénierie des Systèmes d'Information, Vol. 25, No. 5, pp. 569-577, 2020. [SJR: 0.17]
14. S. Merniz, S. Harous, "The Formal Verification of Parameterized Architectures: A Practical Approach", IET Computers & Digital Techniques, Vol. 15, Issue 5, pp. 321-393, 2021. [ISI IF: 0.803]
15. A. Bentaleb, A. Begen, S. Harous, R. Zimmermann, "Data-Driven Bandwidth Prediction Models and Automated Model Selection for Low Latency", IEEE Transactions on Multimedia, Vol 23, pp. 2588-2601, 2021. [ISI IF: 6.051]

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- Things”, [Wireless Personal Communications](#), Vol. 108 (1), pp. 325-344, 2019. [ISI IF: 1.2]
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  45. H. Ismail, S. Harous, B. Belkhouche, “A Comparative Analysis of Machine Learning Classifiers for Twitter Sentiment Analysis”, [Research in Computer Science](#) (Special Issue: Advances in Opinion Mining, Social Network Analysis, and Authorship Attribution), Vol. 110, pp. 71-83, 2016.
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## Refereed Conference Proceedings

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2. T. Selma, A. Bentaleb, S. Harous, "Video QoE Inference with Machine Learning", IWCMC 2021, pp. 1048-1053, Harbin, China, Jun. 28-Jul. 2, 2021
3. M. J. Khan A. Bentaleb, S. Harous, "Can Accurate Future Bandwidth Prediction Improve Volumetric Video Streaming Experience", IWCMC 2021, pp. 1041-1047, Harbin, China, Jun. 28-Jul. 2, 2021
4. L. Capretz, A. Bounassif, S. Harous, "Perceptions about Software Testing among UAE Software Students", 14th International Conference on Cooperative and Human Aspects of Software Engineering, pp. 119-120, Madrid, Spain, May 20-21, 2021.
5. A. M. Younis, H. Fasla, H. Khafaji, H. Ismail, S. Harous, "A Cognitive Style-based Heuristics for Usability Evaluation: A Study on Lecturing Activities on Zoom and Teams for University Students", EDUCON 2021, pp. 1565-1570, Vienna, Austria, April 21-23, 2021

6. F. Zitouni, S. Harous, R. Maamri, "An enhanced Social-Spider Colony Optimization for global optimization", 4th International Conference on Networking, Information Systems & Security, pp. ??-??, Kenitra, Morocco, 1-2 April, 2021.
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8. M. Deghima, L. Louail, S. Harous, "Single sink position in wireless sensor networks", International Conference on Computation, Automation and Knowledge Management (ICCAKM-2021), pp. 271-275, Dubai, UAE, January 19-21, 2021.
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12. H. Alexander, S. Harous, H. El-Sayed, "Heuristic Based Routing Algorithms for Vehicular Network Using Tabu Search and ANN", IEEE Global Conference on Artificial Intelligence and Internet of Things (GCAIoT), pp. 1-6, Dubai, UAE, December 12-15, 2020.
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14. N. T. Madathil, S. Harous, "Central Versus Distributed Statistical Computing Algorithms- A Comparison", 11<sup>th</sup> IEEE Annual Ubiquitous Computing, Electronics & Mobile Communication Conference (UEMCON), pp. 87-92, NY, USA, October 28-31, 2020.
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127. D. Kumar, S. Harous, "An Approach towards Distributed Simulation of Timed Petri Nets", 1990 Winter Simulation Conference, pp.428-435, New Orleans, December 9-12, 1990.

128. D. Kumar, S. Harous, "An Approach to Study Performance Properties of Distributed Simulation", the Second IEEE Symposium on Parallel and Distributed Processing, pp. 866-869, Dallas, December 9-13, 1990.
129. D. Kumar, S. Harous, "Distributed System Design Via N-Party Synchronization", First Maghrebin Conference on Artificial Intelligence and Software Engineering, pp.403-417, Constantine, Algeria, Sept. 24-27, 1989.

### Refereed Extended Abstracts

1. M. Almarzooqi, A. Rashood, B. Al Shamisi, S. AlMejaini, A. Boubas, S. Harous, "Scalable Vector Capture of Audiovisual Content", 6th Annual Undergraduate Research Conference on Applied Computing (URC 2014), Dubai, UAE, April 30 - May 1, 2014.
2. M. Al Hammadi, M. Al Ahabbi, M. A Kaseb, A. Al-Mazrouei, A. Boubas, S. Harous, "A Photo Editing and Sharing App for iOS Devices", 6th Annual Undergraduate Research Conference on Applied Computing (URC 2014), Dubai, UAE, April 30 - May 1, 2014.
3. A. Bentaleb, A. Boubetra, S. Harous, "A New Weight Based Clustering Scheme for Mobile Ad Hoc Networks", UAE Forum on Information and Communication Technology Research 2013 (ICTRF2013), Abu Dhabi, UAE, May 12-14, 2013.
4. A. Boubas, S. Harous, "Performance Optimization of Media Processing", UAE Forum on Information and Communication Technology Research 2013 (ICTRF2013), Abu Dhabi, UAE, May 12-14, 2013.
5. A. Benmerzouga, S. Harous, "Optimal (m, p) Failure Policies with Random Repair Time" International Conference on Pure and Applied Mathematics, Bahrain, November 19-22, 1995.
6. S. Harous, A. Benmerzouga, "A hybrid conservative scheme for distributed simulation", Parallel and Distributed Computing, Kuwait, March 13-15, 1995.
7. L. Sterling, S. Harous, M. Kirschenbaum, B. Leis, L. White, "Developing Software Testing Programs in Prolog Using Stepwise Enhancement", 14th International Conference on Software Engineering, Melbourne, Australia, May 11-15, 1992.

### Submitted Papers

1. L. Capretz, S. Harous, A. Bounassif, "What UAE Software Students Think about Software Testing?", International Conference on Evaluation and Assessment in Software Engineering, June 21-23, 2021.
2. F. Zitouni, S. Harous, A. Belakrem, L. Baba Hamou, "The Archerfish Hunting Optimizer: a novel metaheuristic algorithm for global optimization"
3. A. Bentaleb, S. Hammoudi, A.C. Begen, S. Harous, R. Zimmermann, "Live HTTP Adaptive Streaming for Near-Second Latency: Requirements, Challenges, and Solutions"
4. A. Bentaleb, S. Hammoudi, A.C. Begen, S. Harous, R. Zimmermann, "Accurate Bandwidth Measurement in Chunked Low Latency Live Streaming: Challenge and Solution"
5. Y. Harbi, A. Refoufi, Z. Aliouat, S. Harous, A. M. Gueroui, "Lightweight blockchain-based remote user authentication for fog-enabled IoT deployment"
6. R. Gasmi, S. Harous, "Robust Connectivity-based Internet of Vehicles Clustering Algorithm"
7. Y. Harbi, Z. Aliouat, A. Refoufi, S. Harous, "A survey on security of IoT : vulnerabilities, emerging solutions, challenges and future directions"
8. Y. Harbi, A. Refoufi, Z. Aliouat, S. Harous, "Improved bio-inspired security scheme for privacy-preserving in the Internet of Things"
9. D. Mechta, S. Harous, "Key Management based on Quantum Cryptography in WSNs".
10. M. El Menshawy, M. Serhani, S. Harous, A. Benharref, "A new approach to model checking"

extended mobile health system architecture for obesity management”

11. S. Hebal, S. Harous, D. Mechta, “ Energy Routing Challenges and Protocols in Energy Internet: A Survey”
12. S. Hammoudi, H. Ouarzeddine, Z. Aliouat, S. Harous, M. Gueroui, “Intelligent Clustering and Scheduling Techniques for TSCH”
13. M. Lamri, A. Boubetra, S. Harous, Y. Atif, “Towards Internet of Things: Survey”.
14. L. Lulu, B. Belkhouche, S. Harous, “Local Text Reuse Detection Methods for Arabic-Based Documents”
15. F. Belhadj, S. Harous, S. Ait Aoudia, “Attack via templates correlation on fingerprint hashing algorithm based on minimum distance graphs using computational geometry”.

## Un-refereed Publications

1. S. Harous, “Computer Aided Learning Tool for Data Structures”, Online Learning Conference, HCT, Sharjah, UAE, April 11, 2001.
2. L. Khezzar, S. Harous, M. Benayoune, K. Al-Asmi, “Water Distribution Project, Strategy and Theoretical Concepts”, 26 pages, Ministry of Electricity and Water, Sultanate of Oman, April 1996.
3. S. Harous, “Studies in Distributed Simulation”, Ph.D. Dissertation, Case Western Reserve University, Cleveland, Ohio, August 1991.
4. F. Lin, S. Harous, G. Ernst, “Empirical Evaluation of Verifying Generics and Data Abstractions in Ada”, Technical Report, Dept. of Computer Engineering and Science, C.W.R.U., October 1990.
5. S. Harous, “An Extensible Interpreter for a Subset of CaseDL Based on Prolog”, Master's Thesis, Case Western Reserve University, Cleveland, Ohio, January 1988.

## AWARDS, GRANTS AND KEYNOTES

### Award

1. Outstanding Service Award: College of Information Technology, UAE University, May 2018.
2. Outstanding Teaching Award: College of Information Technology, UAE University, June 2015.
3. Outstanding Service Award: College of Information Technology, UAE University, June 2014.
4. Outstanding Teaching Award: College of Information Technology, UAE University, June 2011.
5. Distinguished University Teacher Award: University of Sharjah May 2006
6. Distinguished University Teacher Annual Bonus Award: University of Sharjah May 2008
7. Distinguished College Teacher Award: College of Arts & Sciences, University of Sharjah May 2008
8. Distinguished University Teacher Annual Bonus Award: University of Sharjah May 2007
9. Distinguished College Teacher Award: College of Arts & Sciences, University of Sharjah May 2007
10. Distinguished College Teacher Award: College of Arts & Sciences, University of Sharjah May 2006
11. Distinguished College Teacher Award: College of Arts & Sciences, University of Sharjah May 2005

12. Recipient of the University of Sharjah outstanding research award sponsored by Bank of Sharjah for “Term rewriting and its application to recognizing handwritten Hindu numerals”, 2002
13. First Prize Award: Research Day for MS Students, Case Western Reserve University, September 1987.
14. Major De Promotion: Scholarship for higher education in the U.S.A., awarded by the Algerian Government, 84-87.
15. Best Student Award: in High School for the year 1979, ranked within the top 50 in the country.

## Grants

### 1. Internal Individual

- a. **PI**: “Smart IoT Components for Smart Cities”, **SURE Plus, 50000 AED**, Research Affairs, UAE University, May 2019 –April 2020.
- b. **PI**: “A comparative study of clustering algorithms for mixed datasets”, **SURE Plus, 41000 AED**, Research Affairs, UAE University, May 2018 –April 2019.
- c. **PI**: “Lingua: An application for learning”, **SURE Plus, 40000 AED**, Research Affairs, UAE University, May 2017 –April 2018.
- d. **PI**: “Efficient Adaptive Video Streaming over HTTP”, **Research Collaboration Awards, 50000 AED**, CIT Research Support, to visit National University of Singapore, March 2017 - December 2017.
- e. **PI: Research Linkage**, “Parallel-Processing Environment for Image Retrieval”, 2013, **16670 AED**, to follow up visit NY Poly, USA March 28 – April 12 – 2013, UAE University.
- f. **PI: Research Linkage**, “Parallel-Processing Environment for Image Retrieval”, 2012, **30485 AED**, to visit NY Poly, USA March 22– April 14 – 2012, UAE University.
- g. **PI**: “Routing Algorithm for Ad Hoc Network”, **20000 AED**, Research Affairs, UAE University, 2010.
- h. **Pi**: (Coordinator): Arabic Computational Linguistics Research Group, budget for running cost for academic year, **96000 AED**, University of Sharjah, 2007-2008.
- i. **PI**: “Computerizing Arabic Proficiency Test”, with members from Arabic Computational Linguistics Research Group, **72000 AED**, University of Sharjah, 2007-2008.
- j. **Co-PI**: “A Pilot Study for an Arabic Dictionary on Historical Principles”, with members from Arabic Computational Linguistics Research Group, **100000 AED**, University of Sharjah, 2007-2008.
- k. **Co-PI**: “Arabic Spelling checker”, with members from Arabic Computational Linguistics Research Group, **72000 AED**, University of Sharjah, 2007-2008.
- l. **Co-PI**: Intelligent Systems and Infrastructure Research Group, **120000 AED**, Initial startup grant for the group, University of Sharjah, 2006-2007.
- m. **Co-PI**: “Recognition of Handwritten Character”, with Dr. Ashraf Elnagar, **25000 AED**, University of Sharjah, 2000-2001.
- n. **Co-PI**: “Arabic Character Recognition and Pronunciation”, with Dr. Ashraf Elnagar, **28000 AED**, Sultan Qaboos University, 1996-1998.

### 2. Interdisciplinary

- a. **PI**: “AI-based techniques for multi-bitrate streaming at low latency”, with A. Bentaleb and R. Zimmermann (University of Singapore), **677000 AED**, UAE University Program for Advanced Research, 2020-2024.
- b. **Co-PI**: “Regulated Watson-Crick Rewriting Systems”, with S. Turaev, and N. Zaki, **230000 AED**, UAE University, Startup Grant, 2020-2022.
- c. **Co-PI**: “Self-Reliant Task-Oriented Autonomous Unmanned Vehicles for Missions in Harsh Environment: The case of Mars”, with A. Lakas, B.N. Abdelkader, E. Barka, **490500 AED**, UAE University, Center Based Grant, 2019-2023.
- d. **PI**: “Improving End-user Quality of Experience in Adaptive Video Streaming over HTTP (HAS)”, with R. Zimmermann, **890000 AED**, UAE University Program for Advanced Research, 2018-2022.

- e. **PI:** “Social Network based solution for obesity awareness, monitoring, and prevention in the UAE”, with M. Serhani and A. Benharref, **400000 AED**, UAE University Program for Advanced Research, 2016-2018.
- f. **Co-PI:** “Infrastructural Architecture for Continuous EEG Monitoring of people with Chronic Neurological Diseases in UAE”, with M. Serhani and A. Benharref, **390000 AED**, UAE University Program for Advanced Research, 2014-2016.

### 3. External

- a. **CoPi:** "VANET: Networks and Applications" with S. Meniz, H. Hafi, A. Djimli, A. Bitat (University of Constantine, Algeria) and W. Abdou (University of Burgundy, France), **2120000 DA (65000 AED)**, Algerian Ministry of Higher Education, **2018-2022**.
- b. **Co-PI:** “Arabic Semantic Analysis to predict protein interaction”, with Nazar Zaki and Yacine Atif, **135000 AED**, Emirates Foundation, 2010-2012.
- c. **Co-PI:** “Distributed Modeling of Pipe Networks”, Co-investigator with Dr. AbdeAllah Al-Ayoub (Jordan University of Science and Technology) and Dr. Ali Yazici (Atilim University, Turkey), **588800 AED**, Perez-Guerrero Trust Fund – United Nations, 2002-2004.
- d. **Co-PI:** “Development of a System for the Simulation and Design of Water Distribution Networks”, with Dr. Lyes Khazzar, Dr. Mohamed Benayoun, and Dr. Khalfan Al-Asmi, **525000 AED**, Ministry of Electricity and Water, Oman, 1996-1997.

## Invited Speaker

1. **Invited Speaker**, “Improving End-user Quality of Experience in Adaptive Video Streaming over HTTP (HAS)”, [5th International Symposium on Modelling and Implementation of Complex Systems](#), Laghouat, Algeria, December 16-18, 2018.
2. **Plenary Speaker**, “Supporting Selection of Digital Resources for Classroom based Teaching Activities”, [CAASR International Conference on Advanced Theoretical Computer Applications \(CAASR-ICATCA`15\)](#), Bangkok, Thailand, November 27-28, 2015.
3. **Plenary Speaker**, “How to make use of the Internet for Teaching”, [2eme Journée D’informatique a de L’université de Bordj Bou Arreridj](#), Algeria, December 3, 2014
4. **Invited Speaker**, “How to define a research problem?”, [1ere Journée Doctorale en Informatique](#), Université de Bordj Bou Arreridj, Algeria, December 15, 2013
5. **Invited Speaker**, “Advanced Design and Analysis of Algorithms”, Research and Technological Summer University, Tlemcen University, Algeria, July 9-14, 2011

## Conference Presentations

1. “A Distributed Weight-Based TDMA Scheduling Algorithm for Latency Improvement in IoT”, The 10th IEEE Annual Ubiquitous Computing, Electronics & Mobile Communication Conference, NY, USA, October 10-12, 2019.
2. “ACO-based Distributed Energy Routing Protocol in Smart Grid”, The 10th IEEE Annual Ubiquitous Computing, Electronics & Mobile Communication Conference, NY, USA, October 10-12, 2019.
3. “LBSNN: Neural Networks-based Moving Sink”, The 9th IEEE Annual Ubiquitous Computing, Electronics & Mobile Communication Conference, NY, USA, November 8-10, 2018. [Best Award Paper]
4. “An Efficient Weight-Based Clustering Algorithm using Mobility Report for IoV”, The 9th IEEE Annual Ubiquitous Computing, Electronics & Mobile Communication Conference, pp. 615-620, NY, USA, November 8-10, 2018.
5. “Congestion control techniques in VANETs: A Survey”, 13th International Wireless

- Communications and Mobile Computing Conference (IWCMC 2017), Valencia, Spain; June 26-30, 2017.
6. "Hybrid Obesity Monitoring Model using Sensors and Community Engagement", 13th International Wireless Communications and Mobile Computing Conference (IWCMC 2017), Valencia, Spain; June 26-30, 2017.
  7. "Load Balancing in the Cloud Using Specialization", The 7th IEEE Annual Ubiquitous Computing, Electronics & Mobile Communication Conference, NY, USA, October 20-22, 2016.
  8. "Improving LEACH-C Using Sink Mobility", The 7th IEEE Annual Ubiquitous Computing, Electronics & Mobile Communication Conference, NY, USA, October 20-22, 2016.
  9. "A New Topology Management Scheme for Large Scale Mobile Ad Hoc Networks", 2015 IEEE International Conference on Electro/Information Technology, DeKalb, IL, USA, May 21-23, 2015.
  10. "A Balanced Clustering Protocol to Improve Wireless Sensor Networks Energy Consumption", 14th International Conference on Software Engineering, Parallel and Distributed Systems (SEPADS15), Dubai, UAE, February 22-24, 2015.
  11. "Parallel Abstraction of Images with Applications in Image Retrieval", 11th International Conference on Information Sciences, Signal Processing and their Applications, Montreal, Canada, July 3-5, 2012.
  12. "An Efficient Clustering Protocol Increasing Wireless Sensor Networks Life Time", 8th International Conference on Innovations in Information Technology IIT2012, Al Ain, UAE, March 18-20, 2012.
  13. "Parallel Thinning Algorithms: A Survey", the International Conference on Ambient Systems, Networks and Technologies (ANT2010), Paris, France, November 8-10, 2010.
  14. "A collaborative learning environment for a biology practical work", The Twelve International Conference on Integration and Web-based Application & Services (iiWAS2010), Paris, France, November 8-10, 2010.
  15. "Simulation of a VPN Implementation based on MPLS protocol, A Case Study: VPN-MPLS for MSN-AT", 4th International Symposium on Intelligent Systems Techniques for Ad hoc and Wireless Sensor Networks (IST-AWSN'09), Kuala Lumpur, Malaysia, December 14-16, 2009.
  16. "A Tool for Making Dictionaries on Historical Principles", Conférence Internationale des Technologies de l'information et de la communication, Sétif, Algeria, May 4-6, 2009.
  17. "UOS EASY EXAM Arabic Computer Based Examination System", the IEEE – 3rd International Conference on Information & Communication Technologies: From Theory to Applications (ICTTA'08), Damascus-Syria, April 07-11, 2008.
  18. "Design and Development of a Prototype of a Practical Work Template for a Virtual Laboratory", The Ninth International Conference on Integration and Web-based Application & Services (iiWAS2007), Jakarta, Indonesia, December 3-5, 2007.
  19. "Congestion Aware Multi-path Dynamic Source Routing Protocol (CAWMP-DSR) for Mobile Ad-Hoc Network", The Fifth International Conference on Advances in Mobile Multimedia (MoMM2007), Jakarta, Indonesia, December 3-5, 2007.
  20. "Performance Analysis of An Energy Aware Multi-path Routing Algorithm for Mobile Ad Hoc Networks", International Conference on Computer Integrated Manufacturing CIP'2007, Sétif, Algeria, November 3-4, 2007.
  21. "An Energy Aware Multi-path Routing Algorithm", International Conference on Communication, Computer and Power (ICCCP'07), Muscat, Oman, February 19-21, 2007.
  22. "A Multi-Agents System to Support a Virtual Laboratory", The Eighth International Conference on Integration and Web-based Application & Services (iiWAS2006), Yogyakarta, Indonesia,

December 4-6, 2006.

23. "Design of Ergonomic Interfaces", the International Workshop on Trustworthy Ubiquitous Computing (TwUC2006), Yogyakarta, Indonesia, December 4-6, 2006.
24. "Software Development Using Prolog", Congres International en Informatique Appliquée, CIIA 05, Bordj Bou Arreridj, Algeria, Nov. 19-21, 2005.
25. "A Graphical Approach to Design Virtual Scenes on the Web" The seventh International Conference on Integration and Web-based Application & Services (iiWAS2005), Kuala Lumpur, Malaysia, Sept. 19-21, 2005.
26. "A Performance Study of DSR under different Wireless Channel Models", The Third International Conference on Advances in Mobile Multimedia (MoMM2005), Kuala Lumpur, Malaysia, Sept. 19-21, 2005.
27. "Evaluation System for AVUNET Environment", Sixth International Conference on Integration and Web-Based Application & Services (iiWAS2004), pp. 613-620, Jakarta, Indonesia, Sept. 27-29, 2004.
28. "Learner Evaluation System for Distance Education", Sixth International Conference on Integration and Web-Based Application & Services (iiWAS2004), Jakarta, Indonesia, Sept. 27-29, 2004.
29. "An Authoring System for Distance Education", IADIS International e-Society 2004 Conference, Avila, Spain, July 16-19, 2004.
30. "An Environment for cooperative learning over the Internet", International Conference on Internet Computing (IC'2002), Las Vegas, Nevada, USA, June 24-27, 2002.
31. "Computer Aided Learning Tool for Non Linear Data Structure", 4th World Multiconference on Systemics, Cybernetics and Informatics, Orlando, FL, USA, July 23-26, 2000.
32. "Modeling of Pressure Reducing Valves Revisited", ASCE Water Resource Planning and Management Conference, Arizona, USA, June 6-9 1999.
33. "A Bilingual Rapid Reader", 6th International Conference and Exhibition on Multi-lingual Computing, Cambridge, UK, April 17-18, 1998.
34. "A Computer-Aided Design Program for Water Network Analysis", The Third Gulf Water Conference, Oman, March 8-13, 1997.
35. "Deadlock Detection and Recovery Based Distributed Simulation: A performance study", 1991 Winter Simulation Conference, Phoenix, December 8 - 11, 1991.
36. "A Study of Achievable Speed up in Distributed Simulation Via Null Messages", Tenth Annual IEEE International Phoenix Conference on Computers and Communications, Scottsdale, Arizona, Mar. 27-30, 1991.
37. "An Approach towards Distributed Simulation of Timed Petri Nets", 1990 Winter Simulation Conference, New Orleans, December 9-12, 1990.
38. "An Approach to Study Performance Properties of Distributed Simulation", the Second IEEE Symposium on Parallel and Distributed Processing, Dallas, December 9-13, 1990.
39. "Distributed System Design Via N-Party Synchronization", First Maghrebin Conference on Artificial Intelligence and Software Engineering, Constantine, Algeria, Sept. 24-27, 1989.

## TEACHING, MENTORING, AND ADVISING

Teaching for me is not just a job, but it is something I patiently enjoy. My highest pleasure is when I see my students enjoying and learning the subject I am teaching. I am very passionate about teaching that is why every semester I prepare my courses in a thorough way by improving any shortcoming and emphasizing the positives aspects from previous experiences. I am always looking for ways to continuously develop my teaching skills. In my teaching I focus on both theoretical concepts and practical experiences. I encourage my students to think about the class as a learning environment where they learn by interacting with me and with their peers. In both theory and lab sessions, I encourage students to work in smaller groups in which they discuss the solution of the given problem, design and write the code together. My goal as a teacher is to communicate information and explain concept to students in a very clear manner with examples, not only for them to memorize it but also to learn how to think and learn by themselves. I believe that in order for students to learn, not only they should listen and observe, but they should participate in the class discussion, solving problems, analyzing solutions presented by the teacher and other students. I teach many courses where students are required programs, I will emphasize to students that the program is just the final product but what more important so to go about producing this product. Using this approach learn how to solve problem by analyzing the problem, understanding the problem requirement, designing an algorithm and implementing their solution and testing it to make sure it work as intended. This approach will develop students' critical thinking and problem solving skills.

I am very enthusiastic about the topic I am teaching in the class which usually has a very positive effect on my students. I always use real life example to explain the concepts I am teaching. The use of these kind of examples convince students that they are learning concepts that can be applied in our daily life which make them very excited about their learning experience. This will keep them involved in the class.

I always make use of the available technology in my teaching. I use smart board in all my teaching. I communicate with my students using black board and email. I (with Hoda Amer) developed an iBook for the course ITBP119 Algorithms and Problem Solving. I am firm believer in learning from other people and helping other people that is why I always make my teaching materials available to my colleagues and peer teachers. I developed the teaching materials for the following courses: ITBP119, ITBP121, ITBP112, ITBP219, ITBP221, ITBP319 and ITPG701. Every faculty members and instructors who is or has been involved in teaching any of these courses, has a copy of the material I have prepared. Not only that but I developed the material (students' hand book, Teacher Guide, and course outcomes) being used by all ADEC teachers teaching a programming course for grade 10. Also I lead a committee that developed the material being by the Ministry of Education in grades 7 and 10. To share my teaching approach I gave a number workshop to high school IT teachers all over the UAE.

The college of Information Technology has recognized my teaching contributions by awarding the **Outstanding Teaching Award twice in 2011 and 2015**. At the University of Sharjah I received the **Distinguished University Teacher Award and Distinguished College Teacher Award many times**.

## At the College of Information Technology, UAE

### 1- Courses taught and related contributions

Contributions		#Taught Sections	Coordination	New Development	New Labs Development	Content Revision	New Teaching Tools	Textbook Proposal
Courses								
2019-2020	ITCO 603: System Analysis, Modeling & Design	1	No	No	No	Yes	No	
	ITBP481: Graduation Senior Project 2	2	No	Yes	Yes	Yes	Yes	
	ITBP119: Algorithm and Problem Solving	3	Yes	No	Yes	No	No	
	ITBP319: Data Structures	2	Yes	No	Yes	No	No	
	ITPG701: Advanced Design and Analysis of Algorithms	1	Yes	No	No	No	No	
2018-2019	ITCO 603: System Analysis, Modeling & Design	1	No	No	No	Yes	No	
	CSBP219: O.O. Programming	1	Yes	Yes	Yes	Yes	Yes	
	CSBP119: Algorithm and Problem Solving	3	Yes	No	Yes	No	No	
	CSBP319: Data Structures	2	Yes	No	Yes	No	No	
	ITPG701: Advanced Design and Analysis of Algorithms	1	No	No	Yes	No	No	
2017-2018	ITBP315: Operating Systems Fundamentals	1	No	Yes	No	No	No	
	ITCO 603: System Analysis, Modeling & Design	1	No	No	No	Yes	No	
	ITBP119: Algorithm and Problem Solving	2	Yes	No	Yes	No	No	
2016-2017	ITCO 603: System Analysis, Modeling & Design	2	No	No	No	Yes	No	
	ITBP481: Graduation Senior Project 2	2	No	Yes	Yes	Yes	Yes	
	ITBP119: Algorithm and Problem Solving	2	Yes	No	Yes	No	No	
	ITBP319: Data Structures	2	Yes	No	Yes	No	No	
	ITBP480: Senior Graduation Project 1	1	No	Yes	Yes	Yes	Yes	
	ITPG602: Research Methods in IT	1	No	Yes	No	Yes	Yes	
2015-2016	ITPG701: Advanced Design and Analysis of Algorithms	1	No	No	Yes	No	No	
	ITBP119: Algorithm and Problem Solving	6	Yes	No	Yes	Yes	Yes	
	ITBP319: Data Structures	1	Yes	No	Yes	No	No	
	ITBP480: Senior Graduation Project 1	1						
	ITBP319: Data Structures	1	Yes	No	Yes	No	No	
2014-2015	ITBP221: Programming Lab II	1	Yes	Yes	Yes	Yes	No	No
	ITBP481: Graduation Senior Project 2	1	No	Yes	No	Yes	Yes	
	ITBP219: Object Oriented Programming	4	Yes	No	Yes	No	No	
	ITBP121: Programming Lab I	1	Yes	Yes	Yes	Yes	No	No
	ITBP112: Introduction to Programming	1	Yes	Yes	Yes	Yes	Yes	No
2013-2014	SWEB 320: Formal Methods and Models	1	No	No	No	Yes	Yes	
	ITBP480: Graduation Senior Project 1	1	No	Yes	No	Yes	Yes	
	ITPG960: Dissertation Research	2						
	ITBP119: Algorithm and Problem Solving	2	Yes	No	Yes	No	No	
	ITBP319: Data Structures	1	Yes	No	Yes	No	No	
	ITBP481: Graduation Senior Project 2	1	No	Yes	No	Yes	Yes	

	ITBP480: Graduation Senior Project 1	1	No	Yes	No	Yes	Yes	
2012-2013	ITPG960: Dissertation Research	2						
	ITBP119: Algorithm and Problem Solving	4	Yes	No	Yes	No	No	
	ITBP319: Data Structures	1	Yes	No	Yes	No	No	
	ITBP481: Graduation Senior Project 2	1	No	Yes	No	Yes	Yes	
	ITBP319: Data Structures	3	Yes	No	Yes	No	No	
2011-2012	RGIS606: Database Management Systems	1	Yes	No	Yes	No	No	
	ITBP119: Algorithm and Problem Solving	2	Yes	No	Yes	No	No	
	ITBP480: Graduation Senior Project 1	1	No	Yes	No	Yes	Yes	
	ITBP319: Data Structures	1	Yes	No	Yes	Yes	No	
2010-2011	RGIS606: Database Management Systems	2	Yes	Yes	Yes	Yes	Yes	
	ITPG691: Special Topics in Software Eng.	1	Yes	Yes	Yes	Yes	Yes	
	ITPG601: Advanced Design and Analysis of Algorithms	1	Yes	Yes	Yes	Yes	Yes	Yes
	SWEB499: Special Topics in Software Eng.	1	Yes	Yes	Yes	Yes	Yes	
	ITBP119: Algorithm and Problem Solving	4	Yes	Yes	Yes	Yes	Yes	Yes
2008-2009	ITBP119: Algorithm and Problem Solving	2	No	No	Yes	Yes	Yes	Yes
	SWEB499: Special Topics in Software Eng.	1	Yes	Yes	Yes	Yes	Yes	No

## 2- Undergraduate Project Supervision Activities

Project	#Students	Location	Achievement
Location Aware personalized Assistant	4	CIT	
A comparative study of mixed data clustering algorithms	3	CIT	Published a conference paper based on this project
Alturjoman Alsagheer, Basic Language App for kids	3	CIT	3 <sup>rd</sup> best project in the college, May 2017. Published a conference paper based on this project
Merath Calculator	3	CIT	The best project in the college, Dec 2017.
Online Knowledge Test For Driving License	5	CIT	
Al Ain Hospital Medical Application for Smart Phone	3	CIT and Al Ain Hospital	2 <sup>nd</sup> best project in the college, January 2015
Scalable Vector Capture of Audiovisual Content	4	CIT	Paper in International Conference on Innovations in Electronics, Communication and Computing (ICIECC '14), Madurai, Tamil Nadu, India, April 10-11, 2014
A Photo Editing and Sharing App for iOS Devices	4	CIT	Poster in 6th Annual Undergraduate Research Conference on Applied Computing (URC 2014), Dubai, UAE, April 30 - May 1, 2014. Exposed the project in GITEX 2014, Dubai

### 3- Teaching Publications

#### Refereed Journal Papers

1. D. Mechta, S. Harous, M. Djoudi, A. Douar, "Supervision and Control Tool for Collaborative Virtual l@boratory", *Journal of Software (JSW)*, Vol. 7 No. 7, pp. 1496-1504, 2012.
2. S. Harous, D. Mechta, M. Djoudi, A. Douar, "Agent-Based Approach for Designing and Implementing a Virtual Laboratory", *International Journal of Mathematics and Computer Science*, Vol. 3, No. 2, pp. 127-140, 2008.
3. S. Harous, A. Benmerzouga, "A Computer Aided Learning Tool", *Journal of Computer Sciences*, Vol. 4, No. 1, pp. 10-14, 2008.
4. L. Douidi, C. Khentout, S. Harous, M. Djoudi, "An Authoring System For Pedagogical Content Creation and Management", *International Journal of Instructional Media*, Vol. 35, No. 1, pp. 39-51, 2008.
5. M. Djoudi, S. Harous, "Design of Supporting Tools to Simplify the Learning Process over the Internet", *Technological Horizons in Education Journal*, vol. 29(4), pp.50-54, November 2001
6. S. Yagi, S. Harous, "A Computer Aided Learning Tool For Readers", *Journal of Scientific Research (Science and Technology)*, Vol. 4, pp. 55-69, December 1999.

#### Book Chapter

1. M. Djoudi, S. Harous, "Portable MP3 Players For Oral Comprehension of a Foreign Language", Chapter XXV, *Handbook of Research on Mobile Multimedia*, ISBN: 1-59140-866-0, Idea Group Reference, May 2006.

#### Refereed Conference Papers

1. H. Amer, S. Harous, "Smart –Learning Course Transformation for an Introductory Programming Course", 17th IEEE International Conference on Advanced Learning Technologies - ICALT2017, pp. 463-465, Timisoara, Romania, July 3-7, 2017.
2. J. Alkaraki, S. Harous, H. Almuhairei, Y. Alhammadi, S. Ayoub, A. Alshabi S. Rahmah, M. Alsalhi, A. Alamiri "Towards an Innovative Computer Science Curriculum in UAE Public School System", IEEE Global Engineering Education Conference (EDUCON2016), pp. Abu Dhabi, UAE, April 11-13, 2016.
3. M. Almazrooei, A. Rashood, B. Al Shamisi, S. AlMejaini, A. Boubas, S. Harous, "Scalable Vector Capture of Audiovisual Content", International Conference on Innovations in Electronics, Communication and Computing (ICIECC '14), Madurai, Tamil Nadu, India, April 10-11, 2014.
4. D. Mechta, S. Harous, M. Djoudi, "CVL@b: A Collaborative Virtual L@boratory Development and Experiment", IADIS International Conference WWW/Internet 2013 (ICWI 2013), pp. 125-132, Fort Worth, Texas, USA, October 22-25, 2013.
5. Y. Atif, D. Sampson, S. Harous, "Supporting Selection of Digital Resources for Classroom-based Teaching Activities", The 13th IEEE International Conference on Advanced Learning Technologies, pp. 359-363, Beijing, China, July 15-18, 2013.
6. D. Mechta, S. Harous, M. Djoudi, A. Douar, R. Belmahdi "Supervision and Control Tool for E-learning Virtual Laboratory" 7th International Conference on Innovations in Information Technology IIT2011, pp. 61-66, Abu Dhabi, UAE, April 25-27, 2011.

7. D. Mechta, S. Harous, M. Djoudi, A. Douar, "A collaborative learning environment for a biology practical work", The Twelve International Conference on Integration and Web-based Application & Services (iiWAS2010), pp. 389-394, Paris, France, November 8-10, 2010.
8. A. Douar, S. Harous, M. Djoudi, D. Mechta, "An Interactive 3D Distributed Environment For Distance Practical Works", 6th International Conference on Innovations in Information Technology IIT2009, pp. 205-209, Al Ain, UAE, December 15-17, 2009.
9. D. Mechta, S. Harous, M. Djoudi, A. Douar, "Agents Based Modeling of Distant Biology Practical Work", The International Conference on Information Technology (ICIT'2009), Amman, Jordan on June 3-5, 2009
10. M. Jaballah, S. Harous, S. Yagi, "UOS EASY EXAM Arabic Computer Based Examination System", the IEEE – 3rd International Conference on Information & Communication Technologies: From Theory to Applications (ICTTA'08), pp. 1-5, Damascus-Syria, April 07-11, 2008.
11. D. Mechta, S. Harous, M. Djoudi, A. Douar, "Design and Development of a Prototype of a Practical Work Template for a Virtual Laboratory", The Ninth International Conference on Integration and Web-based Application & Services (iiWAS2007), pp. 437-443, Jakarta, Indonesia, December 3-5, 2007.
12. S. Harous, L. Douidi, M. Djoudi, C. Khentout, "Learner Evaluation System for Distance Education", Sixth International Conference on Integration and Web-Based Application & Services(iiWAS2004), pp. 579-586, Jakarta, Indonesia, Sept. 27-29, 2004.
13. S. Harous, L. Douidi, M. Djoudi, C. Khentout, "An Authoring System for Distance Education", IADIS International e-Society 2004 Conference, pp.387-394, Avila, Spain, July 16-19, 2004.
14. S. Harous, M. Djoudi, "A Cooperative Authoring System for Intelligent Tutoring Systems", International Conference on Internet Computing (IC'2003), pp.723-729, Las Vegas, Nevada, USA, , June 23-26, 2003.

## Teaching Workshops

1. S. Harous, Participated in the Second Teacher Forum organized by the Training and Professional Development Dept. in Ministry of education from 6th to 10th January 2019. Gave two workshops:
  - a. Teaching Programming through Games
  - b. Problem Solving Skills
2. S. Harous, Gave a 1-day workshop, "How to teach Programming" to about 25 IT High schoolteachers 2016.
3. S. Harous, Gave a 1-day workshop, "How to teach Problem Solving" to about 25 IT High schoolteachers 2017.
4. S. Harous, "Introduction to Computer Programming Training", Al Ain, July 5, 2015 (10 -13). The training was attended by cycle 3 IT teachers Al Ain ADEC's schools (more than 70).
5. S. Harous, "Introduction to Computer Programming Training", Al Gharbia, July 6, 2015 (10-13). The training was attended by cycle 3 IT teachers Al Gharbia ADEC's schools (more than 20).
6. S. Harous, "Introduction to Computer Programming Training", Al Ain, July 7, 2015 (10-13). The training was attended by cycle 3 IT teachers Abu Dhabi ADEC's schools (more than 50).
7. S. Harous, "Digital Technology and Innovation Scratch Programming Training", Al Shawamekh School, Abu Dhabi, August 26, 2015 (10:00-16:00). The training was attended by all cycle 3 IT teachers from ADEC (more than 140).

8. S. Harous, "How to teach Programming", Sharjah, 2014. The training was attended by about 25 IT High school teachers

## Curriculum Development

1. BSc in IT: Leading the team proposing new changes to IT program in the CIT, 2016-2017
2. MSc in Computer Science at the University of Sharjah, 2002.
3. PhD in IT, College of Information Technology, I was a member of the graduate executive committee 2010-2011.
4. Contributed to new Computer Science in the college of Information Technology.
5. Revised the content of computer programming courses in the college of Information Technology (ITBP119, ITBP219, and ITBP319).
6. Developed the content of the following 3 courses: ITBP112, ITBP121, ITBP221

## Previous Teaching Experience at Other Universities

1. Research Methodology (Graduate)
2. Advanced Design& Analysis of Algorithms (Graduate)
3. Compiler Construction (Graduate)
4. Operating Systems (Graduate)
5. Computer Networks (Graduate)
6. Data Structures and Files (Graduate)
7. Introduction to Computer Science I
8. Introduction to Computer Science II
9. Introduction to Business Programming
10. Fundamentals of Operating Systems
11. Data Structures
12. Design Methodology
13. Digital Design
14. Design and Analysis of Algorithms
15. Computer Networks and Communication
16. Computer Graphics
17. Computer Architecture and Assembly Language
18. Introduction to Computers and Programming
19. FORTRAN Programming
20. Pascal Programming
21. Introduction to Computers and Software Packages
22. Ordinary Differential Equations
23. Business Mathematics I
24. Probability and Statistics

## MSc supervision

1. Aicha Tekali, Rima Merrouche, "Semantic Image Retrieval", November 2013.
2. Rachida Hashim, "Adaptive Multiple Path QoS aware DSR Routing Protocol for MANET", May 2008.
3. Mohamed Al Dubai, "Power-Aware Algorithms in Ad Hoc Networks", September 2006.
4. R. Zakon, "Distributed Decision Making System", May 1992.

## PhD supervision

1. Tisa Selma, just started
2. Muhammad Khan, just started
3. Sara Hebal, “Energy Routing Problem”, Ongoing
4. Mustapha Taleb, “Mechanisms for VANETs Congestion Control” Ongoing
5. Amel Douar, “Interfaces ergonomiques d’un laboratoire virtuel sur le web”, Ongoing.
6. Anas Boubas, “Multicomponent Image Quality Measure”, completed all requirements but unfortunately, he did not defend his thesis.
7. Heba Ismail, “A Framework For Personalized Content Recommendations To Support Informal Learning In Massively Diverse Information Wikis”, Co-supervisor with Prof. B. Belkhouche.
8. Oussama Senouci, “Application of Clustering Techniques in IoV Context”, **June 2019**.
9. Sarra Hamoudi, “Wireless Sensor Network in Internet of Things”, **May 2019**.
10. Leena Lulu, “A Web Intelligent System for Mining the Link Structure of the World Wide Web”, **December 2016**. Co-supervisor with Prof. B. Belkhouche.
11. Abdelhak Bentaleb, “Scalability and QoS management in MANET”, **May 2016**
12. Djamila Mechta, “Plate-forme pour les Travaux Pratiques à Distance sur le Web (D\_Télé\_TP)”, **December 2012**.

## Internal Examiner

1. Shamsa Abdulla Salem Al Mazrouei, “An Immersive Learning Model”, MSc. Thesis, UAE University, UAE, 2017
2. Asma Obaid AlFalasi, “SLA Management in a Collaborative Network of Federated Clouds: THE CLOUDLEND”, PhD Thesis, UAE University, UAE, 2016.
3. Khaled Sultan AlKaabi, “Private Sector Emiratization: Evaluating The Policies and Practices Designed to Achieve Abu Dhabi’s Strategic HRM Goal”, DBA Thesis, UAE University, UAE, 2016
4. Safa AlMohana Safa AlMohana, “An Empirical Investigation of the UAE Stock Markets”, DBA Thesis, UAE University, UAE, 2015
5. Fatmah Mohamed Ali Ramsi, “A Game Based Learning Model”, MSc. Thesis, UAE University, UAE, 2015
6. K. Al Falahi “Community Detection and Influence Maximization in Online-Social Networks”, PhD Thesis, UAE University, UAE, 2014.
7. Rasha AlDam, “Building a Transfer Module from Restricted Domain English to Arabic Bilingual Corpus”, MSc. Thesis, University of Sharjah, UAE, 2008.
8. Rahima Betercia, “Handwriting Segmentation for Unconstrained Arabic Text”, MSc. Thesis, University of Sharjah, UAE, 2008.
9. Ahmed Saber, “Development of an efficient Distributed Geographic Information System for e-Services”, MSc. Thesis, University of Sharjah, UAE, 2008.
10. Fatima AlShamsi, “A Statistical Information Extraction System for Arabic Text”, MSc. Thesis, University of Sharjah, UAE, 2006.
11. Leena Lulu, “An Art Gallery Based Approach for Efficient Motion Planning in Global Environments”, MSc. Thesis, University of Sharjah, UAE, 2004.

## External Examiner

1. Vasim Babu, “Localization in Wireless Sensor Network Using Discrete Power”, PhD Thesis, Anna University Chennai, India, 2016.

2. Ahmad Haddad, "New Connections Identification using K-mean Clustering with WEKA on the KDD 99 Cup 10% Dataset", M.Sc. Thesis, Ajman University of Science & Technology, UAE, 2015.
3. Nasr Mohamed, "Enumeration of Spanning Trees Using Edge Exchange with Minimal Partitioning", M.Sc. Thesis, University of Sharjah, UAE, 2014.
4. Sridevi B, "Development of algorithms for security enhancement and authentication cost reduction for mobile WiMAX", PhD Thesis, Anna University Chennai, India, 2013.
5. Amany Mohamed, "Phenomena Detection in Mobile Wireless Sensor Networks", M.Sc. Thesis, University of Sharjah, UAE, 2013.
6. Eshraq Zenal Abdulla, "Vehicle Identification Using RFID-Based Technology", M.Sc. Thesis, Ajman University of Science & Technology, UAE, 2012.
7. Rami Ali Mohamed Abudayyeh "Performance Analysis and Enhancements of IEEE 802.11e EDCA Protocols" M.Sc. Thesis, Sultan Qaboos University, Oman. 2011.
8. Sultan Alyahyai, "Fault Tolerant Load Balancing Middleware Grid Computing Services", M.Sc. Thesis, 2005, Sultan Qaboos University, Oman, 2009.
9. Hussein Almaqbali, "Performance Evaluation of Grid Computing Services", M.Sc. Thesis, Sultan Qaboos University, Oman, 2007.

## PROFESSIONAL ACTIVITIES

### Professional Membership

ACM and IEEE member

### Editorial Membership

1. Member of the Editorial Review Board of International Journal of Mobile Computing and Multimedia Communications, 2010-present
2. Guest Editor for a special edition of Journal of Innovation in Digital Ecosystems (JIDE), Elsevier, vol. 1, issue 1-2, ISSN 1796-2021, December 2014.
3. Guest Editor for a special edition of Linguistica Communicatio, Vol. VI, 2014.
4. Co-Editor of the proceedings of the International Conference on Management of computational and collective Intelligence in Digital EcoSystems, Al Qassim, Saudi Arabia, September 15-17, ACM Digital Library, 2014
5. Co-Editor of the proceedings of the IEEE sponsored Tenth International Conference on Innovations in Information Technology, Al Ain, U.A.E, November 9-11, IEEE, ISBN 978-1-4799-7212-8, 2014
6. Co-Editor of the proceedings of the IEEE sponsored Seventh International Conference on Innovations in Information Technology, Abu Dhabi, U.A.E, April 25-27, IEEE, ISBN 978-1-4577-0314-0, 2011
7. Member of Editorial Board of e-Entrepreneur Column (Online student e-innovation journal) published by Institute for Technological Innovation, UAE.
8. Member of Editorial Board of UoS Journal of Pure and Applied Sciences, University Sharjah.

### Manuscript Reviewing

- International Journal of Pattern Recognition and Artificial Intelligence
- International journal of advanced intelligence paradigms
- Malaysian Journal of Computer Science
- International Journal of Pattern Recognition and Artificial Intelligence

- International journal of advanced intelligence paradigms
- International Journal of Computational Science and Engineering
- Journal of Telecommunications and Information Technology (JTIT)
- Malaysian Journal of Computer Science
- International Journal of Mobile Computing and Multimedia Communications
- International Journal of Wireless and Mobile Computing
- International Journal of Ad Hoc and Ubiquitous Computing
- International Journal of Innovation and Technology Management
- Journal of Innovation in Digital Ecosystems
- Communications and Network
- Journal of King Saud University - Computer and Information Sciences
- EURASIP Journal on Wireless Communications and Networking
- International Journal of Computer Applications in Technology
- International Journal of Information Technology and Management
- The Journal of Systems and Software
- IEEE Transactions on Computers
- Sultan Qaboos University QU Journal of Engineering Research
- Sultan Qaboos University Journal of Science and Technology
- The Journal of the University of Kuwait (Science)
- The Journal of the University Of Jordan

## Research Proposal Reviewing

1. Key Predictive Analytics Group /kepa/, CIT- Research Group, 2017
2. Blockchain-based Innovative Framework for Transactions-based Applications, SURE Plus, UAE University, 2017.
3. Design and Implementation of a Platform for the Processing of Urban Data Streams, SURE Plus, UAE University, 2017.
4. Intelligent auditory system for visual impaired visitors of museums, CIT-Faculty-Student Research, 2017
5. Big Data Analytics in the UAE: Global issues, Implications and the Way Forward, CIT-Faculty-Student Research, 2017
6. Enhancing Computing Studies in High Schools in the UAE, University of Sharjah, 2016
7. Developing Improved Genetic Algorithms based on Cellular Mechanism for Gene-Expression Data Analysis, UAE University, Startup Proposals, 2016
8. Towards a high accuracy Color Printing and Digital Media, Research Council of Oman, 2013
9. Dynamic bandwidth allocation protocol for QoS support on mobile networks, King Saoud University, Saudi Arabia, 2011
10. Fiabilité et Congestion dans les Systèmes de Communication, Ministry of Higher Education, Algeria, 2011.
11. SYGALE : Système Générique de simulation et de surveillance Environnementale, Ministry of Higher Education, Algeria, 2011.
12. Sécurisation des VPNs du Réseau Multi-Services (RMS) d'Algérie-Télécom, Ministry of Higher Education, Algeria, 2011.
13. Parallélisation et Optimisation de Programmes Scientifiques, Ministry of Higher Education, Algeria, 2011.
14. Reviewer of 2 proposals for Emirates Foundation, UAE, 2009 and 2010, respectively.

## Membership

1. Program Committee Member, 11th International Conference on Interactive Mobile Communication Technology and Learning, Thessaloniki, Greece, 30/11-1/12-2017

2. Program Committee Member, 30th International FLAIRS Conference, Marco Island, Florida, USA, May 22-24, 2017 [Reviewed 1 paper]
3. Program Committee Member, 3rd International Conference on Networking and Advanced Systems, Annaba, Algeria, 13-14 December 2017.
4. Program Committee Member, International Conference on Informatics, Health & Technology, 21-23 Feb 2017.
5. Program Committee Member, Artificial Intelligence & Cyber-Security Track, Key Largo, Florida, (Special track on AI and CYBER-SECURITY) May 16 - 18, 2016
6. Program Committee Member, 9th International Conference on Interactive Mobile Communication Technology and Learning, (special session: Online Labs and Mobile Learning), Thessaloniki, Greece, 2015
7. Program Committee Member, Second International Symposium on Signal Processing and Intelligent Recognition Systems, India, Dec. 16-19, 2015.
8. Think Science Competition, Member of the Judging Committee, 2015
9. Program Committee member Program Committee member MEDES2015
10. Member of the Steering Committee of the 10th Mobile Application Contest 2015
11. Program Committee member ICNAS2015
12. Program Committee member CIAA2015
13. Program Co-Chair, The International Conference on Management of computational and collective Intelligence in Digital EcoSystems (MEDES'14), September 14-17, 2014
14. Program Committee member Program Committee member SIRS 2014
15. Program Committee member Program Committee member ICWOAL2014
16. Program Committee member Program Committee member ICTRF2014
17. Program Committee member Program Committee member ICAASE2014
18. Think Science Competition, Member of the Judging Committee, 2014
19. Program Co-Chair, Tenth International Conference on Innovations in Information Technology, Al Ain, U.A.E, November 9-11, 2014.
20. Program Committee member CIAA2013
21. Program Committee member ISPS2013
22. Program Committee member IIT2013
23. Program Committee member EIDWT2012
24. Program Committee member CIAA2012
25. Program Committee member ICACIS2012
26. Program Committee member IIT2012
27. Program Committee member ICWIT2012
28. Program Co-Chair, Seventh International Conference on Innovations in Information Technology, Abu Dhabi, U.A.E, April 25-27, 2011.
29. Program Committee member CARI2010
30. Program Committee member ICTIT2010
31. Program Committee member IIT2009
32. Program Committee member IIWAS2009
33. Program Committee member ICEE2009
34. Attended the first meeting with the Algerian researchers' resident abroad that was held in Algiers, November 2-5, 2009. I was invited by the Ministry of Higher Education and the Ministry of Defense.
35. Technical Program Committee Member of International Workshop On Context Modelling And Management For Smart Environments, October 28-31, 2008, Paris, France
36. Executive Steering Committee Member and Publicity Chair (North Africa) of The 10th International Conference on Information Integration and Web-based Applications & Services (iiWAS2008), Linz, Austria, November 24-26, 2008.
37. Executive Steering Committee Member and Publicity Chair (North Africa) of The 6th International Conference on Advances in Mobile Computing & Multimedia (MoMM2008), Linz, Austria, November 24-26, 2008.
38. Juror for UAE IT Challenge 2008.
39. Technical Program Committee Member of the 2007 IEEE International Conference on Signal Processing and Communication (ICSPC07) Dubai, UAE, November 24-27 November 2007.

40. Technical Program Committee Member of International Workshop On Context Modelling And Management For Smart Environments, October 28-31, 2007, Lyon, France
41. Executive Steering Committee Member of The Ninth International Conference on Information Integration and Web-based Applications & Services (iiWAS2007), Jakarta, Indonesia, December 3-5, 2007.
42. Executive Steering Committee Member of The Fifth International Conference on Advances in Mobile Computing & Multimedia (MoMM2007), Jakarta, Indonesia, December 3-5, 2007.
43. Technical Program Committee Member, The International Workshop on Context Modelling and Management for Smart Environments (CMMSE'07), Lyon, France, October 28-31, 2007.
44. Technical Program Committee Member of Innovations in Information Technology IIT2006, Dubai, UAE, November 19-21, 2006.
45. Member of the Steering Committee of the National Program Contest (NPC 2007) 2007
46. Steering Committee Co-chair of the Fourth International Conference on Advances in Mobile Computing & Multimedia (MoMM2006), Yogyakarta, Indonesia, December 4-6, 2006.
47. Technical Program Committee Member, Mobile and Wireless Learning Workshop, Vancouver, Canada, July 3-7, 2006.
48. Program Committee member Conférence Internationale sur l'Informatique et ses Applications CIIA06, Saida, Algeria, 15-16 Mai 2006.
49. Program Committee member IADIS Virtual Multi Conference on Computer Science and Information Systems (MCCIS 2006).
50. Juror for UAE IT Challenge 2006
51. Chair of the Organizing Committee of E-learning Forum, 5 April, 2006, Sharjah, UAE.
52. Member of the Steering Committee of the National Program Contest (NPC 2006) 2006
53. Program Committee member of 5th IBIMA Conference, The Internet & Information Technology in Modern Organization, 13-15 December 2005, Cairo, Egypt.
54. Associate Editor of The e-Entrepreneur Column, published by Institute for Technological Innovation Zayed University, U.A.E.
55. Program Committee member Seventh International Conference on Information Integration and Web-based Applications & Services (iiWAS2005), Kuala Lumpur, Malaysia, September 19-21, 2005
56. Member of the Organizing Committee of the First Arabic Computational Linguistics Symposium: Arabic Machine Translation, University of Sharjah, UAE, May 11, 2005.
57. Member of the Steering Committee of the National Program Contest (NPC 2005) 2005
58. Program Committee member IADIS Virtual Multi Conference on Computer Science and Information Systems (MCCIS 2005).
59. Member of the Judging Committee for Al Owais Award For Scientific Invention, 2005, I reviewed a book on IT.
60. Program Committee Member Congrès international en informatique appliqué, (CIIA 05) Bordj Bou Arréridj, Algeria, November 2005
61. Program Committee member Sixth International Conference on Information Integration and Web-based Applications & Services (iiWAS2004), Jakarta, Indonesia, September 27-29, 2004
62. Program Committee member of the 2004 International Conference on Computing and Information Science (ICCIS'04), Doha, Qatar
63. Program Committee member of End-to-End Service Differentiation Workshop (EESD2004), Phoenix, Arizona, April 2004
64. Juror for UAE IT Challenge 2004
65. Workshop on "Program Assessment of Computer Science and Other IT Related programs" given by the Commission for Higher Education, Zayed University, UAE, Mar. 22, 2004.
66. Workshop on "Introduction to Online Teaching and Learning Using the BlackBoard System", EduTech, University of Sharjah, Jan. 27, 2004.
67. Workshop on "Introduction to Program Outcomes" organized by the UoS Evaluation of Program Outcomes Committee, University of Sharjah, UAE, May 22 and 24, 2004.
68. Juror for UAE IT Challenge 2002
69. Association for Computer Machinery (ACM)
70. Institute of Electrical and Electronic Engineers (IEEE)

71. Computer Society
72. ACM Student Chapter Advisor at the University of Sharjah University
73. Program Committee member in the ACS International Conference on Computer Systems and Applications, Tunisia, July 16, 2003.
74. Member of Technical Program Committee EESD2003, Phoenix, Arizona, USA, April 2003
75. Program Committee member in the First EuroAsian Conference on Advances in Information and Communication Technology (EURASIA-ICT 2002), Tehran, Iran, October 29 - 31, 2002
76. Program Committee member in International Symposium on Innovation in Information & Communication Technology (ISIICT 20001), Amman, Jordan, September 26-27, 2001
77. Program Committee member in the ACS International Conference on Computer Systems and Applications, Beirut, Lebanon, June 26-29, 2001.
78. Organized a workshop on Steady State Analysis of Water Distribution Networks, Sultan Qaboos University, April 5-6, 1999.

## SERVICE ACTIVITIES

I am and always have been an active member in my college, university and society at large. In 2001 I founded the National Programming Contest (a competition open to all UAE universities students) through several activities and events. The aim of the contest was to test students in computing-related majors to demonstrate their skills in programming and problem. In 2010 we opened the competition to all gulf universities. The competition has been very successful, the first year of the competition we had 13 teams now each year we get more than 40 teams. When I was at the University I run a University wide programming competition and I have been doing the same thing since I have joined the UAE University. I have trained teams who participated in the ACM regional programming contest. The College hold annually two main events: IT Marathon (nation-wide school-level IT Competition) and IT Innovations (IEEE sponsored international conference). Every year, since I joined college, I participate in both events. I co-chair the IT Marathon in 2010, and co-chaired the IT Innovation twice in 2011 and 2014.

In order to serve the community at large I was involved with the Ministry of Education to train high school students in problem solving and programming from 2004 to 2012. The purpose of the program was to attract students to IT, science, and engineering fields and to represent the UAE in national and international Programming Competitions such as Arab Olympiad of Informatics and International Olympiad in Informatics. More than 100 students benefit from the program during that period. The majority of those students pursued their university studies in IT and engineering and there are very successful. In 2007 a team from these students compete against University's students in the National Programming Contest and won the competition.

Each year, to publicize IT Marathon I give presentations about the competition, our college, and the different programs offered to teachers in different education zones in the nation. Other purpose of these presentations are to make school students and teachers across the nation aware about the development in IT and opportunities available in this field.

In 2014 the UAE Ministry of Education decided to review the K-12 IT curriculum. I was a member of the committee formed to accomplish this task. We developed a report of about 300 pages titled "UAE K-12 Computer Science and Technology Standards". This document provides comprehensive standards and performance criteria for K-12 computer science and technology education designed to strengthen computer science fluency and competency throughout primary and secondary Schools in UAE. It has been approved by the ministry and it is currently being used as guide to develop the curriculum. I am chairing a committee to develop the teaching material (Lecture notes, Teacher guide, learning outcomes) for grades 7-12. We finished preparing the material for grade 7 and 10 and it is being used this academic year in schools. The whole work will be finished during the next two years. I am also involved with two other faculty members from our college in redesigning the IT curriculum for grades 10 to 12 for Abu Dhabi Education Council (ADEC) schools. We have finished the material required for grade 10. I prepared the complete teaching material (students hand book, learning outcomes and teacher guide) for the programming module. This material is being currently used by all grade 10 IT teachers in ADEC's schools.

I have chaired or currently chairing the college curriculum committee, teaching committee, text book committee. I have been a very active member of many college committees. I am on the University Undergraduate Program & Curriculum Committee since fall 2013. Previously when I was at the University of Sharjah I chaired many department committees (such as: teaching, curriculum, hiring, promotion, faculty evaluation), college graduate committee, and college curriculum committee. I was member of many college committees (college council, curriculum, teaching, promotion, faculty evaluation, and hiring). I was member of the University graduate committee, university faculty evaluation, and university hiring committee. I chaired the department of Computer Science at the University of Sharjah for three years.

The College of Information Technology has recognized my Service contributions by awarding me the **Outstanding Service Award in 2014** and **Outstanding Service Award in 2018**.

## College of IT Committees

1. Chair of the Dept. Promotion Committee 2019-2020
2. Chair of the College Curriculum Committee, 2019-2020
3. Chair of the College Curriculum Committee, 2018-2019
4. Chair of the College Curriculum Committee, 2017-2018
5. Ph.D. Program development Task Force Member, 2009 – 2010.
6. IT Marathon 2010: Co-Chair
  - Sharjah Education Zone
  - Fujairah Education Zone
7. Peer Evaluation of Teaching (2009-2010):
  - 8 candidates for Promotion purpose. I visited each faculty twice.
  - 3 faculty from Network track. I visited each faculty once.
  - 3 faculty from Intelligent System track. I visited each faculty once.
  - 1 faculty from Enterprise Systems track. I visited once
8. Chair of Teaching Committee 2009-2010
9. Member of task force who designed the new Peer Evaluation/Observation Form 2010.
10. Member of the graduate program committee 2010-2011
11. Member Teaching Committee 2010-2011
12. Member of Web Developer Selection Committee 2010-2011
13. IIT Conference 2011: Program Co- Chair
14. IT Marathon 2011:
  - Responsible for Programming Contest
  - Gave presentation About IT Marathon to Sharjah Education Zone
15. Member of the Promotion Committee 2011-2012
  - Attended all meeting
  - Prepared the teaching report of 8 candidates
  - Peer evaluation for 4 candidates
16. Member of Senior Project 2011-2012
  - Examined All ITBP480 project
  - Designed a new Evaluation procedure for ITBP480 and ITBP481
  - Reviewed All proposal submit for ITBP480 (Fall and Spring semester)
17. Peer Evaluation of Teaching (2014-2015):
  - Visited 2 faculty members.
18. IIT Conference 2012:
  - Track Chair
  - Session Chair
19. IT Marathon 2012:
  - Chair of IT Contest
  - Gave presentation About IT Marathon to Sharjah Education Zone
20. Chair of Text Book Committee 2012-2013
21. IIT Conference 2013:
  - Local Arrangement Chair
  - Co-Chair with Dr. Boumediene of Special Session on Arabic Computing
  - Session Chair
  - Reviewed many papers
22. IT Marathon 2013:
  - Responsible for IT Contest
  - Gave presentation about IT Marathon to Fujairah Education Zone
23. Member of Senior Project 2012-2013
  - Examining All ITBP480 projects
  - Reviewed All proposal submit for ITBP480 (Fall and Spring semester)
24. The 2013 NYUAD International Hackathon for Social Good in the Arab world

- Advised of 3 students from CIT who participated as contestants
- 25. Internal Examiner
  - PhD Research Proposal, “Community Detection and Influence Maximization in On-Line Social Networks”, by Kanna Al Falahi, UAE University, 2013.
- 26. IT Marathon 2014:
  - Chair IT Contest
  - Gave presentation about IT Marathon to Ajman Education Zone
  - Visited 5 School in Al Ain
- 27. IIT Conference 2014:
  - Co-Chair of the conference
- 28. Member of Senior Project 2013-2014
  - Examining All ITBP480 projects
  - Reviewed All proposal submit for ITBP480 (Fall and Spring semester)
- 29. Member of Graduate Study Committee 2013-2014
- 30. The 2014 NYUAD International Hackathon for Social Good in the Arab world
  - Advised of 3 students from CIT who participated as contestants
- 31. Peer Evaluation of Teaching (2014-201015):
  - Visited 2 faculty members.
- 32. Member of Graduate Study Committee 2014-2015
- 33. IT Marathon 2015:
  - Chair IT Contest
  - Gave presentation about IT Marathon to Sharjah Education Zone
- 34. The 2015 NYUAD International Hackathon for Social Good in the Arab world
  - Advised of 4 students from CIT who participated as contestants
- 35. Member of Graduate Study Committee 2015-2016
- 36. Chair of the College Curriculum Committee, 2015-2016
- 37. Member of PET and Pedagogy committee (2015-2016)
- 38. Peer Evaluation of Teaching: Visited 2 faculty members 2015-2016
- 39. IT Marathon 2016:
  - Chair IT Contest
  - Gave presentation about IT Marathon to Al Ain Education Zone
- 40. IIT Conference 2016:
  - Chair of the local Arrangement Committee
  - Reviewed a number of papers
- 41. Member of Graduate Study Committee 2016-2017
- 42. Chair of the College Curriculum Committee, 2016-2017
- 43. Member of Pedagogy committee 2016-2017
- 44. Member of CAA Committee 2016-2017
- 45. Peer Evaluation of Teaching: Visited 2 faculty members 2016-2017
- 46. IT Marathon 2017:
  - Chair IT Marathon
  - Gave presentation about IT Marathon to Sharjah Education Zone
- 47. College Programming Competition (CPC), from 2013 we opened the competition to all UAEU student
  - CPC 2010: Trained students for the Contest and Chair the organizing committee.
  - CPC 2011: Trained students for the Contest and Chair the organizing committee.
  - CPC 2012: Trained students for the Contest and Chair the organizing committee.
  - UPC 2013: Trained students for the Contest and Chair the organizing committee.
  - UPC 2014 (fall): Trained students for the Contest and Chair the organizing committee.
  - UPC 2015 (spring): Trained students for the Contest and Chair the organizing committee.
  - UPC 2015 (fall): Trained students for the Contest and Chair the organizing committee.
  - UPC 2016 (spring): Trained students for the Contest and Chair the organizing committee.
  - UPC 2016 (fall): Trained students for the Contest and Chair the organizing committee.
  - UPC 2017 (spring): Trained students for the Contest and Chair the organizing committee.

48. National Programming Contest, I started the competition in 2001 for UAE Universities. In 2010 we changed the name of this competition to Gulf Programming Contest.
  - 2010 Trained 3 teams (9 students).
  - 2011 Trained 3 teams (9 students).
  - 2012 Trained 2 teams (6 students).
  - 2013 Trained 3 teams (9 students).
  - 2014 Trained with Dr. Mehdy 3 teams (9 students).
  - 2015 Trained with Dr. Mehdy 1 team (3 students).
  - 2016 Trained with Dr. Mehdy 2 teams (6 students).
49. ACM regional Programming Contest
  - 2011 (Lebanon ) Trained a team (3 students)
  - 2012 (Jordan) Trained a team (3 students)

## UAE University Committees

1. Member of Undergraduate Program & Curriculum Committee: 2013-2014
2. Coach of the UAEU Programming Teams from 2009-present
3. Member of Undergraduate Program & Curriculum Committee: 2014-2015
4. Member of Mechanical Engineering M.Sc. Program Review, May 17-19, 2015.
5. Member of Undergraduate Program & Curriculum Committee: 2015-2016
6. Member of Smart Learning Operational Committee: 2015-2016
7. Coach of the student who participated with a team that won the 2<sup>nd</sup> place in the 2016 Hackathon
8. Coach of the team who participated and won the 3<sup>rd</sup> place in ETIC 2016
9. Member of Undergraduate Program & Curriculum Committee: 2016-2017
10. Coach of the student who participated with a team that won audience award in the 2017 Hackathon
11. Coach of the team who participated and won the first place in ETIC 2017
12. Member of Undergraduate Program & Curriculum Committee: 2017-2018
13. Coach of the student who participated with a team that won 3<sup>rd</sup> place in the 2018 Hackathon
14. Coach of the team who participated and won the first place in ETIC 2019
15. Member of Undergraduate Program & Curriculum Committee: 2018-2019
16. Member of Undergraduate Program & Curriculum Committee: 2019-2020

## Other Services

1. Advisory boards: member of the Advisory Board of College of Computer Information Technology, American University in the Emirates, 2015- present.
2. Ministry of Education 2014-2018: I am on a committee
  - i. Development of Design Technology and Innovation Standards for UAE Schools (KG to grade 12).
  - ii. Development of Computer Science and Technology Standards for UAE Schools (KG to grade 12). We have finished this document (361 pages) which contains the description of the syllabus, expected outcomes and how to assess these outcomes from KG1 to grade 12.
  - iii. Development of the teaching material, instructor guide, and assessment guidelines for each grade. I am leading a group developing the previous 3 things (teaching material, instructor guide, assessment guideline) for grades 7 and 10. There is another group working on the same thing for grades 1 and 4. The material is being used since the academic year 2015-2016.
  - iv. Developed similar material for grades 2, 5, 8 and 11 to be used this academic year (2017-2018)

- v. This year we are going to develop the material for grades 3, 6, 9 and 12
  - vi. Gave a 1-day workshop, “How to teach Programming” to about 25 IT High school teachers 2016.
  - vii. Gave a 1-day workshop, “How to teach Problem Solving” to about 25 IT High school teachers 2017.
3. Abu Dhabi Education Council 2015-2018: I am on committee
- i. Assessment of Higher Education Learning Outcomes IT project (AITCLO)
  - ii. Institution Project Manager: The Institution Project Manager (IPM) is nominated to represent the participating institution in the project expert group. The IPM is responsible for the implementation of the AITCLO project at the institution level. The IPM will undertake and supervise all tasks related to the development and implementation of the AITCLO project in her/his institution.
  - iii. Developed the teaching material for grade 10 Programming Module: students’ handbook, instructor guide, learning outcomes and assessment guidelines. The material is being used this academic year 2015-2016.
  - iv. Developed similar material for grade 11 to be used during academic year 2017-2018
  - v. Started developing similar material for grade 12 for the academic year 2018-2019
  - vi. Introduction to Computer Programming Training, Al Ain, July 5, 2015 (10 -13). The training was attended by cycle 3 IT teachers Al Ain ADEC’s schools (more than 70).
  - vii. Introduction to Computer Programming Training, Al Gharbia, July 6, 2015 (10-13). The training was attended by cycle 3 IT teachers Al Gharbia ADEC’s school (more than 20).
  - viii. Introduction to Computer Programming Training, Al Ain, July 7, 2015 (10-13). The training was attended by cycle 3 IT teachers Abu Dhabi ADEC’s school (more than 50).
  - ix. Digital Technology and Innovation Scratch Programming Training, Al Shawamekh School, Abu Dhabi, August 26, 2015 (10:00-16:00). The training was attended by all cycle 3 IT teachers from ADEC (more than 140).
4. Program for High School students for the Ministry of Education 2004-2012
- o Prepared and graded Math Exam to choose the students to join a program to train them in programming to represent the UAE in national and international Programming Competitions (About 100 students take the exam each year)
  - o Teaching the chosen students C++
  - o Trained 3 high school teachers on how to prepare students for different programming competitions.2010
  - o Gave an exam to IT teacher to choose some of them to train further to become trainers. 2011
  - o 2005: Coached 4 high school students who participated in the 17<sup>th</sup> International Olympiad in Informatics held August 18-25, 2005, Nowy Sacz, Poland.
  - o 2006 Coached 4 high school students who participated in the 18<sup>th</sup> International Olympiad in Informatics held August 13-20, 2006, Mérida, Yucatán, Mexico.
  - o 2007: Coached 4 high school students who participated in the 19<sup>th</sup> International Olympiad in Informatics held August 15-22, 2007, Zagreb, Croatia.
  - o 2008 Coached 4 high school students who participated in the 20<sup>th</sup> International Olympiad in Informatics held August 16-23, 2008, Cairo, Egypt.
  - o 2009: Coached 4 high school students who participated in the 21<sup>st</sup> International Olympiad in Informatics held August 8-15, 2009, Plovdiv, Bulgaria.
  - o 2010: Coached 4 high school students who participated in the 22<sup>nd</sup> International Olympiad in Informatics held August 14-21, 2010, University of Waterloo, Canada.
  - o 2011 Coached 4 high school students who participated in the 23<sup>rd</sup> International Olympiad in Informatics held July 22-29, 2011, Pattaya City, Thailand.
5. Emirates Skills National Competition 2009: President for the two judging committees
- IT PC Software Applications
  - Graphic Design Technology
6. Member of the Technical Program Committee, Emirates skills National Competition, 2011.

7. Jury President of IT-PC Network Support in the Emirates Skills National Competition 2011.
8. ACM regional Programming Contest 2012-2013
  - Member of the Steering Committee
9. Gulf Programming Contest (GPC) 2010-2017
  - Member of the Steering Committee 2010-2011
  - Chair of the Steering Committee 2012-2015
  - Member of the Steering Committee 2015-present
10. Member of the Judging Committee of the 2013 NYUAD International Hackathon for Social Good in the Arab world
11. Member of the Mentoring Committee of the 2014 NYUAD International Hackathon for Social Good in the Arab world
12. Member of the Judging Committee of Think Science 2015-2017
13. ACM regional Programming Contest 2013-2014
  - Member of the Steering Committee

## **Other Universities**

### Department Activities

#### ***University of Sharjah***

1. I started and have organized the University programming contest since 2000
2. Chairperson for 3 years
3. Computer Equipment Committee
4. Member of curriculum committee
5. Member of Accreditation committee
6. Acting Head of Department: Summer 2002
7. Member of the Curriculum Committee 1999-2009.
8. College representative.
9. Time Table Coordinator.
10. Many Ad-hoc committees

#### ***Sultan Qaboos University***

1. Member of the Social Committee of DOMAC 92-94
2. I helped the Computer Club to organize the Computer Exhibition in 93.
3. In 93/94 and 94/95 I participated in running a voluntary, non-credit, short course for two weeks during the winter break. In 94/95 I was the organizer of this program.
4. Member of the Appointment Committee, 95/96
5. Member of the Curriculum Committee, 96-99
6. Member of the Computing Resource Committee, 96-99
7. Department 's Computer Network Co-coordinator
8. Time Table Officer
9. Examiner to several final year project
10. Coordinator with College of Engineering

### College Activities

#### ***University of Sharjah***

1. Member of Many Ad-Hoc committees
2. Member of the College Board
3. Member of Curriculum Committee
4. Member of Promotion Committee
5. Chairman of Computer Equipment Committee
6. Member of Time table Committee

7. Chairman of the Examination Committee 1999-2009.
8. Member of the College Board 1999-2009.

### **Sultan Qaboos University**

1. Member of the Organizing Committee of the first Science Exhibition, 92/93
2. Chairman of the College of Science Computer Equipment Committee 93-95
3. Member of Teaching Evaluation Form Committee, 94-97
4. Member of the MLS Board of Study 97-present
5. Member of the (Ad-hoc) Summer Teaching Committee, 95-present
6. With Dr. Ashraf Elnagar (a faculty member in the Department) we developed a fully automated system for teaching evaluation at the college level. The results produced were well received by the college.

#### University Activities

### ***University of Sharjah***

1. Member of a number of Ad-Hoc committees
2. Member of the Graduate Studies Committee
3. Advisor of the Student ACM Chapter
4. Chairman of the first National Programming Contest, University of Sharjah, March 14-15, 2001.
5. Chairman of the second National Programming Contest, University of Sharjah, March 14-15, 2002.
6. Chairman of the Teaching Evaluation Committee 2000-2009.
7. Member of the Ad-hoc Technical Evaluation Committee 1999-2009.
8. Member IPD Committee

### ***Sultan Qaboos University***

1. Member of SQU Connectivity Project Committee
2. With Dr. Ashraf Elnagar (a faculty member in the Department) we developed a fully automated system for teaching evaluation at the University level. The system is intended to process data for all courses taught in the University and produce summary sheets for faculty, heads of department, deans of colleges, and university high administration. The system is implemented in Pascal, Visual Basic and Excel. This system has been successfully used for the last couple of years.
3. Member of The Ministry of Education (Oman) Committee for overseeing the curriculum for computer science in governmental colleges