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Department of Electrical and Computer Engineering  
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**Current Rank:** Associate Professor.

**Education:**

- **Ph.D. in Electrical Engineering, August 1998**  
Southern Illinois University at Carbondale, IL, U.S.A  
Major in "**Digital Signal Processing and Digital Systems**"  
**Dissertation Title:** "Text-Dependent Speaker Identification Under Normal and Stressful Conditions Using Dynamic Time Warping and Hidden Markov Model".
- **M.Sc. in Electrical Engineering, August 1994**  
Southern Illinois University at Carbondale, IL, U.S.A  
Major in "**Digital Signal Processing and Digital Systems**"  
**Thesis Title:** "Text-Dependent Speaker Identification".
- **B.Sc. in Electrical Engineering, August 1992**  
Southern Illinois University at Carbondale, IL, U.S.A.

**Following is a list of positions I held:**

- **Associate Professor, University of Sharjah, Department of Electrical and Computer Engineering, Sharjah, United Arab Emirates, January 2012 – present.**

Teaching different courses in the Electrical and Computer Engineering Department, advising students, hiring new faculty, participating in teaching committees and other administrative work.

- **Assistant Professor, University of Sharjah, Department of Electrical and Computer Engineering, Sharjah, United Arab Emirates, September 1999 – 2011.**

Teaching different courses in the Electrical and Computer Engineering Department, advising students, hiring new faculty, participating in teaching committees and other administrative work.

- **Visiting Instructor, Southern Illinois University at Carbondale, IL, U.S.A, August 1995 - August 1999**

Teaching different courses in the Electrical Engineering Department.

- **Lab Assistant, Southern Illinois University at Carbondale, IL, U.S.A, January 1993 - August 1995**

Teaching the following labs: Computer Architecture, VLSI, Electronics and FORTRAN Language.

**Following is a list of the institutions I taught at:**

- **University of Sharjah, Electrical and Computer Engineering Department, Sharjah, United Arab Emirates, September 1999 - Present**

- Teaching: Digital Signal Processing I (Graduate, **Inaugural Offering**), Digital Signal Processing (**Inaugural Offering**), Signals and Systems (**Inaugural Offering**), Computer-Aided Solutions of Engineering and Science Problems Using C Language (**Inaugural Offering**), Engineering Computations and Linear Algebra Using MATLAB (**Inaugural Offering**), Random Signal Theory (**Inaugural Offering**), Numerical Methods, Computer System Architecture, Discrete Mathematics for Engineers (**Inaugural Offering**), Digital Logic design and Introduction to Engineering.
- Preparation for **ABET** accreditation.
- Serving in several administrative and technical committees.
- Played a major role in faculty recruiting.
- Curriculum development and enhancement.

- **Southern Illinois University at Carbondale, IL, U.S.A, August 1998 - August 1999**

- ◆ **College of Engineering (Electrical Engineering Department)**

Teaching Digital Systems Design, Digital Computation in Electrical Engineering Using C Language and Computational Methods for Engineers and Technologists Using FORTRAN Language.

- ◆ **College of Science (Computer Science Department)**

Teaching Computer Architecture I.

- ◆ **College of Applied Sciences and Arts**

- Teaching Digital Circuit Applications at Offutt Air Force Base, Omaha, Nebraska, U.S.A.
- Teaching Digital Circuit Applications at Air Station North Island, San Diego, California, U.S.A.

**Following is a list of positions I held:**

- **Associate Professor, University of Sharjah, Department of Electrical and Computer Engineering, Sharjah, United Arab Emirates, January 2012 – present.**

Teaching different courses in the Electrical and Computer Engineering Department, advising students, hiring new faculty, participating in teaching committees and other administrative work.

- **Assistant Professor, University of Sharjah, Department of Electrical and Computer Engineering, Sharjah, United Arab Emirates, September 1999 – 2011.**

Teaching different courses in the Electrical and Computer Engineering Department, advising students, hiring new faculty, participating in teaching committees and other administrative work.

- **Visiting Instructor, Southern Illinois University at Carbondale, IL, U.S.A, August 1995 - August 1999**

Teaching different courses in the Electrical Engineering Department.

- **Lab Assistant, Southern Illinois University at Carbondale, IL, U.S.A, January 1993 - August 1995**

Teaching the following labs: Computer Architecture, VLSI, Electronics and FORTRAN Language.

**Courses I can teach:**

- Speech Processing (graduate level)
- Speech Signal Processing and Applications (undergraduate level)
- Digital Signal Processing (graduate level)
- Digital Signal Processing (undergraduate level)
- Signals and Systems
- Applied Mathematics for Engineering (graduate level)
- Numerical Methods for Engineers Using MATLAB (Electrical, Computer, Renewable Energy, and Civil Engineers)
- Computer-Aided Solutions Using C Language
- C Language for Electrical and Computer Engineers
- Random Signal Theory
- Digital Systems Design
- Digital Circuit Applications
- Advanced Digital Systems

- Sequential Circuit Design
- Computer Architecture
- Switching Circuit Theory
- Discrete Mathematics for Engineers
- Circuit Analysis
- Introduction to Engineering

**Senior Graduation Projects I Supervised:**

- 1) Capturing and Analyzing Emirati Accented Speech in Stressful Talking Environments for Speaker Identification.
- 2) Speaker Identification Under the Neutral and Angry Talking Conditions Using Dynamic Time Warping.
- 3) Speaker Identification Using Dynamic Time Warping Under the Neutral and Loud Talking Conditions.
- 4) Speech Recognition Under Neutral and Stressful Talking Conditions.
- 5) Designing, Building and Testing Floating Point Adder.
- 6) Designing, Building and Testing Floating Point Multiplier.
- 7) Designing, Building and Testing Booth Multiplier.
- 8) Designing, Building and Testing Binary Multiplier.
- 9) Designing, Building and Testing Signed Binary Multiplier.

**Teaching Experience:**

- Extensive teaching experience at university level.
- Hands-on experience in curriculum development and preparation for **ABET** accreditation.
- Very good teaching evaluation results both from students as well as from the dean of the college of engineering.
- Proposing and designing a new department elective course for each of the Electrical/Electronics Engineering Program and the Computer Engineering Program. The course is called “Speech Signal Processing & Applications”.

### **Teaching Evaluation and Recognition:**

- Received the Best Teaching Faculty in the College of Engineering for the 2004/2005 Graduating Students' Award.
- Sample Student Comments:
  - *“The instructor was one of the best instructors that we have.”*
  - *“I think he is the best instructor in giving the information to the students very smoothly, so that it will never be lost.”*
  - *“The instructor explained the material in a perfect way. The way he explained the material is exceptional. His efforts in covering the material were endless. Such an instructor is a gain to the college.”*
  - *“The way the doctor explained this course made him really an excellent doctor.”*
- Dean's Evaluation:
  - *“The enclosed evaluations reflect students' appreciation of your efforts. The College is very pleased and appreciative of your dedication and commitment to teaching excellence. I would like to take this opportunity to thank you for the efforts you have devoted to your courses as well as your other valuable contributions to the progress of the College of Engineering.” Prof. B. Boashash, College Dean.*
  - *“I was pleased to interact with you during my term as Dean and I wish you well in the future.” Prof. B. Boashash, College Dean.*
  - *“Very good performance and devoted teacher. Among department high” Dr. Nabil Kallas, College Acting Dean.*
  - *“It seems clear that students have for the most part enjoyed your courses and are appreciative of your efforts” Dr. Nabil Kallas, College Acting Dean.*

### **Honors and Awards:**

1. **Recipient** of “Annual Incentive Research Award for Distinguished Members at the University of Sharjah”, 2012/2013.
2. **Recipient** of “Sharjah Islamic Bank Award for Distinguished Research at the University of Sharjah”, 2013/2014.
3. The **College of Engineering nominee** for the 2012/2013 Sharjah Islamic Bank Faculty Award (every college has one nominee).

4. The **College of Engineering nominee** for the 2010/2011 Sharjah Islamic Bank Faculty Award.
5. The **second place prize** for the best research paper in the field of basic sciences (College of Engineering and College of Science) in the Fifth Scientific Research Forum at the University of Sharjah, April 2009.
6. Rewarded for judging IEEE Student Competition in the IEEE UAE Student Day, May 2009.
7. Rewarded for judging IEEE Student Competition in the IEEE UAE Student Day, May 2011.
8. Rewarded for judging IEEE Student Competition in the IEEE UAE Student Day, May 2013.
9. Rewarded for judging IEEE Student Competition in the IEEE UAE Student Day, May 2014.
10. Rewarded for judging “Think Sciences” competition, UAE, April 20-24, 2013.
11. Rewarded for judging “Think Sciences” competition, UAE, April 19-22, 2014.
12. Rewarded for judging “Think Sciences” competition, UAE, May 4-6, 2015.
13. Rewarded for judging “Think Sciences” competition, UAE, April 16-19, 2016.
14. Rewarded for judging “Think Sciences” competition, UAE, April 17-19, 2017.
15. Rewarded for judging “Think Sciences” competition, UAE, April 15-17, 2018.
16. Rewarded for judging “Think Sciences” competition, UAE, February - March, 2019.
17. Rewarded for chairing the social events of ISSPA 2007.
18. The Best Teaching Faculty in the College of Engineering for the 2004/2005 Graduating Students’ Award.
19. Dean's list at Southern Illinois University at Carbondale, 1990-1992.
20. Tuition award at Southern Illinois University at Carbondale, 1993-1994.

**Computer Skills:**

- **Operating Systems**

- MS DOS
- UNIX (Sun OS 4.1)
- **Computer Languages**
  - C++
  - C
  - FORTRAN
  - Assembly
- **Software Tools**
  - MATLAB
  - MAGIC (VLSI system design)
  - Pspice
  - MicroSim Schematics
  - ORCAD technical design tools
  - Blackboard learning system.

### **Hardware:**

Field Programmable Gate Arrays (FPGA) using XILINX, TMS320C30 and TMS32010.

### **Areas of Research Interest:**

- Digital Signal Processing
- Speaker Recognition
- Speech Processing and Recognition
- Talking Condition and Emotion Recognition
- Human-Computer Interaction based on speech
- Language Recognition
- Accent Recognition
- Gender Recognition using voice
- Age Recognition using voice
- Digital Systems Design

### **Future Research Plans:**

- Developing new algorithms and models to enhance the performance of speaker recognition and speech recognition in each of neutral, emotional and stressful talking environments.
- Speaker recognition and speech recognition and their applications in each of neutral, emotional and stressful talking environments.
- Emotion and talking condition identification and authentication.
- Human-Computer Interaction based on speech.

- Language identification and authentication.
- Accent identification and authentication.
- Gender identification and authentication using voice.
- Age identification and authentication using voice.
- English and Arabic speech databases.

### **Research Groups:**

- 1) Dr. Shahin is a member of the Machine Learning and Arabic Language Processing Research Group funded by the University of Sharjah.  
<http://www.sharjah.ac.ae/en/Research/RISE/MLALP/Pages/ppl.aspx>
- 2) Dr. Shahin is a member of the Signals, Systems & information Research Group funded by the University of Sharjah.

### **Dissertation and Theses Supervision:**

- 1) **Main supervisor of an ongoing Master thesis by Aya Ahmad Mousa**, “Detection of Arabic Offensive Language in Twitter using Machine Learning Models,” University of Sharjah, Sharjah, United Arab Emirates.
- 2) **Main supervisor of an ongoing Master thesis by Noor Ahmad Sami Al Hindawi**, “Speaker Identification in Emotional Talking Environments for Disguised Voices based on Hybrid Classifiers,” University of Sharjah, Sharjah, United Arab Emirates.
- 3) **Local supervisor of a Ph.D. dissertation by Salah Al-Din Ibrahim Badran**, “Efficient Multiband Algorithms for Blind Source Separation,” De Montfort University, Leicester, England.
- 4) **Internal examiner to the master thesis by Huda M. Arfan Tabbaa**, “Computer-Aided Quranic Recitation Error Detection,” University of Sharjah, Sharjah, United Arab Emirates.

### **Research Funds:**

- 1) Dr. Shahin is the **main Principal Investigator** of a Spotlight Project entitled “**Capturing Emirati-Accented Speech Corpora for Applications of Speech Signal Processing**”. This project is funded by the College of Engineering at University of Sharjah with a fund of 40,000 AED for six months. **Spring 2020.**



- 2) Dr. Shahin is the **main Principal Investigator** of a competitive research grant of a project entitled “**Emirati-Accented Speaker and Emotion Recognition Based on Deep Neural Network**”, Project ID. No.: 19020403139. This project is funded by the University of Sharjah with a fund of 80,000 AED for two years. **Spring 2020**.
- 3) Dr. Shahin is the **main Principal Investigator** of a competitive research grant of a project entitled “**Capturing, Studying, and Analyzing Arabic Emirati-Accented Speech Database in Stressful and Emotional Talking Environments for Different Applications**”, Project ID. No.: 1602040349-P. This project is funded by the University of Sharjah with a fund of 80,000 AED for three years. **Fall 2016**.
- 4) Dr. Shahin is the **main Principal Investigator** of a competitive research grant of a project entitled “**Emotion Recognition in each of Stressful and Emotional Talking Environments Using Artificial Models**”, Project ID. No.: 1602040348-P. This project is funded by the University of Sharjah with a fund of 80,000 AED for two years and a half. **Fall 2016**.

## **Publications:**

### **Journal Publications:**

1. M. Lataifeh, A. Elnagar, **I. Shahin**, and A. B. Nassif “Arabic Audio Clips: Identification and Discrimination of Authentic Cantillations from Imitations,” *Neurocomputing*. (Accepted).
2. S. Hamsa, **I. Shahin**, Y. Iraqi, and N. Werghi, “Emotion recognition from speech using wavelet packet transform cochlear filter bank and random forest classifier,” *IEEE Access*, Vol. 8, June 2020, pp. 96994 - 97006, DOI 10.1109/ACCESS.2020.2991811.
3. **I. Shahin**, A. B. Nassif, and S. Hamsa, “Novel cascaded Gaussian mixture model-deep neural network classifier for speaker identification in emotional talking environments,” *Neural Computing and Applications*, Vol 32, issue 7, 2020, pp. 2575-2587, DOI: 10.1007/s00521-018-3760-2.
4. **I. Shahin**, A. B. Nassif, and S. Hamsa, “Emotion recognition using hybrid Gaussian mixture model and deep neural network,” *IEEE Access*, Vol. 7, March 2019, pp. 26777 - 26787, DOI 10.1109/ACCESS.2019.2901352.
5. A. B. Nassif, **I. Shahin**, I. Attili, M. Azzeh, and K. Shaalan, “Speech recognition using deep neural networks: a Systematic Review,” *IEEE Access*, Vol. 7, February 2019, pp. 19143 - 19165, DOI: 10.1109/ACCESS.2019.2896880.

6. **I. Shahin** and A. B. Nassif, "Three-stage speaker verification architecture in emotional talking environments," *International Journal of Speech Technology*, Vol. 21, issue 4, December 2018, pp. 915-930, DOI: 10.1007/s10772-018-9543-4.
7. **I. Shahin**, A. B. Nassif, and M. N. Ba-Hutair, "Emirati-accented speaker identification in each of neutral and shouted talking environments," *International Journal of Speech Technology*, Vol. 21, issue 2, June 2018, pp. 265-278, DOI: 10.1007/s10772-018-9502-0.
8. **I. Shahin**, "Speaker identification in a shouted talking environment based on novel third-order circular suprasegmental hidden Markov models," *Circuits, Systems and Signal Processing*, DOI: 10.1007/s00034-015-0220-4, Vol. 35, issue 10, October 2016, pp. 3770-3792.
9. S. I. Badran, S. Ahmadi, D. Menzies, and **I. Shahin**, "A Subband BSS structure with reduced complexity and fast convergence," *International Journal of Electronics and Communication Engineering*, Vol. 3, No. 5, May 2016.
10. **I. Shahin**, "Employing emotion cues to verify speakers in emotional talking environments," *Journal of Intelligent Systems, Special Issue on Intelligent Healthcare Systems*, DOI: 10.1515/jisys-2014-0118, Vol. 25, issue 1, January 2016, pp. 3-17.
11. S. I. Badran, S. Ahmadi, D. Menzies, and **I. Shahin**, "A Fast convergence subband BSS structure," *International Journal of Electronics and Communication Engineering*, Vol. 2, No. 7, July 2015.
12. **I. Shahin** and M. N. Ba-Hutair, "Talking condition recognition in stressful and emotional talking environments based on CSPHMM2s," *International Journal of Speech Technology*, Vol. 18, issue 1, March 2015, pp. 77-90, DOI: 10.1007/s10772-014-9251-7.
13. **I. Shahin**, "Novel third-order hidden Markov models for speaker identification in shouted talking environments," *Engineering Applications of Artificial Intelligence*, Vol. 35, October 2014, pp. 316-323, DOI: 10.1016/j.engappai.2014.07.006.
14. S. I. Badran, S. Ahmadi, D. Menzies, and **I. Shahin**, "An efficient separation for convolutive mixtures," *International Journal of Computer, Information Science and Engineering*, Vol. 8, No. 5, April 2014, pp. 583-587.
15. **I. Shahin**, "Employing both gender and emotion cues to enhance speaker identification performance in emotional talking environments," *International Journal of Speech Technology*, Vol. 16, issue 3, September 2013, pp. 341-351, DOI: 10.1007/s10772-013-9188-2.

16. **I. Shahin**, "Speaker identification in emotional talking environments based on CSPHMM2s," *Engineering Applications of Artificial Intelligence*, Vol. 26, issue 7, August 2013, pp. 1652-1659, <http://dx.doi.org/10.1016/j.engappai.2013.03.013>.
17. **I. Shahin**, "Gender-dependent emotion recognition based on HMMs and SPHMMs," *International Journal of Speech Technology*, Vol. 16, issue 2, June 2013, pp. 133-141, DOI: 10.1007/s10772-012-9170-4.
18. **I. Shahin**, "Speaker identification investigation and analysis in unbiased and biased emotional talking environments," *International Journal of Speech Technology*, Vol. 15, issue 3, September 2012, pp. 325-334, DOI: 10.1007/s10772-012-9156-2.
19. **I. Shahin**, "Studying and enhancing talking condition recognition in stressful and emotional talking environments based on HMMs, CHMM2s and SPHMMs," *Journal on Multimodal User Interfaces*, Vol. 6, issue 1, June 2012, pp. 59-71, DOI: 10.1007/s12193-011-0082-4.
20. **I. Shahin**, "Identifying speakers using their emotion cues," *International Journal of Speech Technology*, Vol. 14, No. 2, June 2011, pp. 89 – 98, DOI: 10.1007/s10772-011-9089-1.
21. **I. Shahin**, "Analysis and investigation of emotion identification in biased emotional talking environments," *IET Signal Processing*, Vol. 5, No. 5, August 2011, pp. 461 – 470, DOI: 10.1049/iet-spr.2010.0059.
22. **I. Shahin**, "Speaker identification in each of the neutral and shouted talking environments based on gender-dependent approach using SPHMMs," *International Journal of Computers and Applications*, Vol. 33, No. 1, 2011, pp. 83-91.
23. **I. Shahin**, "Employing second-order circular suprasegmental hidden Markov models to enhance speaker identification performance in shouted talking environments," *EURASIP Journal on Audio, Speech, and Music Processing*, Vol. 2010, Article ID 862138, 10 pages, June 2010. doi:10.1155/2010/862138.
24. Y. Wang, N. Botros and **I. Shahin**, "Processing and feature analysis of stressed speech in speech recognition," *Int. J. Functional Informatics and Personalised Medicine*, Vol. 2, No. 4, December 2009, pp. 346-357.
25. **I. Shahin**, "Speaker identification in emotional environments," *Iranian Journal of Electrical and Computer Engineering*, Vol. 8, No. 1, Winter-Spring 2009, pp. 41-46.
26. **I. Shahin**, "Speaker identification in the shouted environment using suprasegmental hidden Markov models," *Signal Processing*, Vol. 88, issue 11, November 2008, pp. 2700-2708.

27. **I. Shahin**, "Speaking style authentication using suprasegmental hidden Markov models," University of Sharjah Journal of Pure and Applied Sciences, Vol. 5, No. 2, June 2008, pp. 41-65.
28. **I. Shahin**, "Enhancing speaker identification performance under the shouted talking condition using second-order circular hidden Markov models," Speech Communication, Vol. 48, issue 8, August 2006, pp. 1047-1055.
29. **I. Shahin**, "Improving speaker identification performance under the shouted talking condition using the second-order hidden Markov models," EURASIP Journal on Applied Signal Processing, Vol. 5, issue 4, March 2005, pp. 482-486.

### **Conference Publications:**

1. **I. Shahin**, "Emotion recognition using speaker cues," The 3rd Advances in Science and Engineering Technology multi-conferences (ASET'20), Dubai, United Arab Emirates, February 2020, pp. 1-5.
2. **I. Shahin** and A. B. Nassif, "Emirati-accented speaker identification in stressful talking conditions," 2019 International Conference on Electrical and Computing Technologies and Applications (ICECTA), Ras Al Khaimah, United Arab Emirates, November 2019, pp. 1-6, DOI: 10.1109/ICECTA48151.2019.8959731.
3. **I. Shahin** and A. B. Nassif, "Speaker verification in emotional talking environments based on third-order circular suprasegmental hidden Markov model," 2019 International Conference on Electrical and Computing Technologies and Applications (ICECTA), Ras Al Khaimah, United Arab Emirates, November 2019, pp. 1-6, DOI: 10.1109/ICECTA48151.2019.8959553.
4. **I. Shahin**, "Emotion recognition based on third-order circular suprasegmental hidden Markov model," The 2019 IEEE Jordan International Joint Conference on Electrical Engineering and Information Technology (JEEIT), 9-11 April 2019, Amman, Jordan, pp. 599-604.
5. **I. Shahin**, "Text-independent Emirati-accented speaker identification in emotional talking environment," 2018 Fifth HCT Information Technology Trends (ITT), 28-29 November 2018, Dubai, UAE, pp. 257-262.
6. **I. Shahin** and A. B. Nassif, "Utilizing third-order hidden Markov models for emotional talking condition recognition," 14th IEEE International Conference on Signal Processing (ICSP), 12-16 August 2018, Beijing, China, pp. 250-254.
7. **I. Shahin**, "Speaker verification in emotional talking environments based on three-stage framework," 2017 International Conference on Electrical and Computing Technologies and Applications (ICECTA), Ras Al Khaimah, United Arab Emirates, November 2017, pp. 503-507.

8. **I. Shahin**, “Emirati speaker verification based on HMM1s, HMM2s, and HMM3s,” 13<sup>th</sup> International Conference on Signal Processing (ICSP 2016), Chengdu, China, November 2016, pp. 562-567, DOI: 10.1109/ICSP.2016.7877896.
9. S. I. Badran, S. Ahmadi, P. Bagherizadeh, and **I. Shahin**, “A Novel tap selection design for filters in unequal-passbands scheme,” The Eleventh International Conference on Digital Telecommunications (ICDT 2016), February 2016, Lisbon, Portugal, pp. 22-26.
10. **I. Shahin** and M. N. Ba-Hutair, “Emirati speaker identification,” 12<sup>th</sup> International Conference on Signal Processing (ICSP 2014), HangZhou, China, October 2014, pp. 488-493.
11. **I. Shahin**, “Speaker identification in shouted talking environments based on novel third-order hidden Markov models,” The 4th International Conference on Audio, Language and Image Processing (ICALIP2014), Shanghai, China, July 2014, pp. 352-357.
12. S. I. Badran, S. Ahmadi, D. Menzies, and **I. Shahin**, “Improvement on the BSS for convolutive mixtures,” The 2nd International Conference on Applied Information and Communications Technology (ICAICT 2014), Muscat, Oman, April 2014, pp. 333-338.
13. **I. Shahin**, “Speaker identification in emotional talking environments using both gender and emotion cues,” The First International Conference on Communications, Signal Processing, and their Applications (ICCSA’13), Sharjah, United Arab Emirates, February 2013.
14. **I. Shahin**, “Speaker identification investigation and analysis in two distinct emotional talking environments,” 11<sup>th</sup> International Conference on Signal Processing (ICSP 2012), Beijing, China, October 2012, pp. 493-498.
15. **I. Shahin**, “Emotion-dependent speaker identification in emotional talking environments,” The 7th Jordanian International Electrical and Electronics Engineering Conference, (JIEEEEC 2011), Amman, Jordan, April 2011, pp. 107-111.
16. **I. Shahin**, “Verifying speakers in emotional environments,” The 9th IEEE International Symposium on Signal Processing and Information Technology (ISSPIT 2009), Ajman, United Arab Emirates, December 2009, pp. 328-333.
17. Y. Wang, N. Botros and **I. Shahin**, “Speech recognition under stress,” The 2009 International Conference on Bioinformatics and Computational Biology (BIOCOMP’09), Las Vegas, Nevada, USA, July 2009, Vol. II, pp. 855-859.

18. **I. Shahin**, "Gender-dependent speaker identification under shouted talking condition," 3<sup>rd</sup> International Conference on Communication, Computer and Power (ICCCP'09), Muscat, Oman, February 2009, pp. 332-336.
19. **I. Shahin**, "Emotion identification using specific sentences that are biased towards their corresponding emotions," 9<sup>th</sup> International Conference on Signal Processing (ICSP'08), Beijing, China, October 2008, pp. 553-556.
20. **I. Shahin**, "Using emotions to identify speakers," The 5<sup>th</sup> International Workshop on Signal Processing and its Applications (WoSPA 2008), Sharjah, United Arab Emirates, March 2008.
21. **I. Shahin**, "Speaker recognition systems in the emotional environment," 3<sup>rd</sup> International Conference on Information & Communication Technologies: from Theory to Applications (ICTTA'08, IEEE Section France), Damascus, Syria, April 2008.
22. **I. Shahin**, "Talking condition identification using second-order hidden Markov models," 3<sup>rd</sup> International Conference on Information & Communication Technologies: from Theory to Applications (ICTTA'08, IEEE Section France), Damascus, Syria, April 2008.
23. **I. Shahin**, "Talking condition recognition," The Second Annual Scientific Research Forum at the University of Sharjah, Sharjah, United Arab Emirates, May 2006, pp. 82-84.
24. **I. Shahin**, "Talking condition identification using circular hidden Markov models," 2<sup>nd</sup> International Conference on Information & Communication Technologies: from Theory to Applications (ICTTA'06, IEEE Section France), Damascus, Syria, April 2006, 1275-1280.
25. **I. Shahin**, "Enhancing speaker authentication systems using circular hidden Markov models," The Eighth International Symposium on Signal Processing and Its Applications (ISSPA 2005), Sydney, Australia, August 2005, pp. 703-706.
26. **I. Shahin**, "Speaker recognition under the neutral and stressful talking conditions," The First Annual Scientific Research Forum at the University of Sharjah, Sharjah, United Arab Emirates, May 2005, pp. 170-171.
27. **I. Shahin**, "Using second-order hidden Markov models to enhance speaker authentication performance," 3<sup>rd</sup> International Conference: Sciences of Electronic, Technologies of Information and Telecommunications (SETIT 2005), SUSA, Tunisia, March 2005.
28. **I. Shahin**, "Enhancing speaker identification performance using circular hidden Markov model," 1<sup>st</sup> International Conference on Information & Communication

Technologies: from Theory to Applications (ICTTA'04, IEEE Section France), Damascus, Syria, April 2004.

29. **I. Shahin**, "Using second-order hidden Markov model to improve speaker identification recognition performance under neutral condition," 10<sup>th</sup> IEEE International Conference on Electronics, Circuits and Systems (ICECS 2003), Sharjah, United Arab Emirates, December 2003, pp. 124-127.
30. N. Botros, C. Christodoulou and **I. Shahin**, "Ultrasound tissue characterization using hidden Markov models," (abstract), Journal of Ultrasonic Imaging, Vol. 22, June 2001, pp. 262-263.
31. N. Botros, C. Christodoulou and **I. Shahin**, "Ultrasound tissue characterization using hidden Markov models," (abstract), 26th International Symposium on Ultrasonic Imaging and Tissue Characterization, Arlington, VA, USA, May 30 - June 1, 2001, pp. 262-263.
32. **I. Shahin** and N. Botros, "Modeling and analyzing the vocal tract under normal and stressful talking conditions," IEEE SOUTHEASTCON 2001, Clemson, South Carolina, USA, March 2001, pp. 213-220.
33. **I. Shahin** and N. Botros, "Determining the optimum value of number of poles under stressful talking conditions," IEEE SOUTHEASTCON '2000 Proceedings, Nashville, TN, April 2000, pp. 301-304.
34. **I. Shahin** and N. Botros, "Text-dependent speaker identification using hidden Markov model with stress compensation technique," IEEE SOUTHEASTCON '98 Proceedings, Orlando, FL, USA, April 1998, pp. 61-64.
35. **I. Shahin** and N. Botros, "Speaker identification using dynamic time warping with stress compensation technique," IEEE SOUTHEASTCON '98 Proceedings, Orlando, FL, USA, April 1998, pp. 65-68.

### **Committee Administrative Work:**

Dr. Shahin served in the following committees since he joined the University of Sharjah in 1999:

Position	Type	Level
<u>C</u> : Chairman; <u>M</u> : Member	<u>P</u> : Permanent; <u>S</u> : Special	<u>U</u> : Univ.; <u>C</u> : College; <u>D</u> : Dept.

Committee Name	Position	Type	Level	Date
Associate chair of the Department of Electrical and Computer Engineering		P	D	2012-2016

College council in the College of Engineering	M	P	C	2015-present
College Strategic Programs Review Committee	C	S	C	November 2017-April 2018
Chair of the Department Curriculum Committee (Teaching & Learning)	C	P	D	2019-2020
Member of the Deptment Master re-Accreditation Committee.	M	P	D	2018-2020
Member of the University Faculty Grievance Committee	M	P	U	2019-2020
Member of the University students' council election committee	M	P	U	2018-2020
Computing & Networking Committee	M	P	U	2003-2004
Culture Committee	M	P	U	2005-2006
University Practical Training Committee	M	P	U	2004-2005
Academic Computing Committee	C	P	C	2001-2003
Alumni Day Committee	M	P	C	2006-2008
Strategic Plan on Research and Scholarship 90 Days Project	M	P	C	2006-2007
Student Retention and Welfare Committee	M	S	C	Spring 2006
College Website Coordinator	Coordinator	P	C	2010-2015
Coordinator of Department Seminars	Coordinator	P	D	2005-2007
Department Web-Site Committee	Coordinator	P	D	2007-2015
8 <sup>th</sup> IEEE UAE Student Day Organization Committee	M	S	D	April-May 2013
Program Advisory Committee (PAC) Organizer	Coordinator	S	D	Spring 2013 & Fall 2015
Department Organizer of the University "Open Day"	Coordinator	S	D	May 2013
Signals & Image Processing Specialty Group	Coordinator	P	D	2001-present
Research & Scholarship Committee	M	P	C	2011-2013



Promotion Committee	M	P	D	February 2012-present
Learning and Teaching Committee	M	P	D	2006-2010
External Relations Committee	C	P	D	2001-2002
Staffing Committee	M	P	D	1999-2002 2012-2013 2015-2016
ABET Accreditation Committee	M	P	C	2002-2003 2012-2013
Lab Supervision Committee	M	P	D	2002-2004
Lab Supervision Committee	M	P	D	2006-2007
Program Advisory Committee	M	P	D	2005-2006
Undergraduate Accreditation Committee	M	P	D	2002-2003
Assessment & Continuous Program Improvement	M	P	D	2003-2005
Digital & Computer Systems' Specialty Group	M	P	D	2001-2007
Software Specialty Group	M	P	D	2001-2007
High School Visits (2 times)	Al Marefa School (Fall 2001) & Al Sholaa School (Spring 2008), Sharjah			

### **Research Related Community Services**

- 1) Associate chair of the Department of Electrical and Computer Engineering.
- 2) Local organization committee member of The 14th International Conference on Construction Applications of Virtual Reality (CONVR 2014) and Islamic Architecture, Sharjah, UAE, 16-18 November 2014.
- 3) Member of the Technical Program Committee (TPC) to the 15th IEEE International Symposium on Signal Processing and Information Technology 2015 (ISSPIT 2015), Abu Dhabi, UAE.
- 4) Member of the Technical Program Committee (TPC) and a reviewer for the 2019 International Conference on Electrical and Computing Technologies and Applications (ICECTA'2019).
- 5) Session chair of “Speech Processing and Recognition” session in The First International Conference on Communications, Signal Processing, and their Applications (ICCSA'13), Sharjah, United Arab Emirates, February 2013.

- 6) Session chair of the “12<sup>th</sup> International Conference on Signal Processing (ICSP 2014)”, HangZhou, China, October 2014.
- 7) Living & Transportation Committee Chair of the Intel Science Competition – Arab World 2011.
- 8) Finance and Registration Chair of the 20<sup>th</sup> International Conference on Microelectronics (ICM 2008).
- 9) Publicity Chair of the 5<sup>th</sup> International Workshop on Signal Processing and its Applications (WoSPA 2008).
- 10) Social Events Chair of the International Conference on Information Sciences, Signal Processing and its Applications (ISSPA 2007).
- 11) Involved in the local arrangement of ISSPA 2007.
- 12) Involved partially in the publicity of the International Forum on Islamic Architecture and Design Ideas, Innovations and Sustainability (IFIAD 2008).
- 13) Member of International Conference on Computer, Communication and Information Technologies (ICCCIT) scientific committee.
- 14) Editorial Board member of SciFed Journal of Artificial Intelligence.  
<http://scifed.com/journal-of-artificial-intelligence/editorial-board.php>
- 15) Editorial board member of the International Journal of Applied Engineering Research (IJAER).
- 16) Editorial board member of Rising Vision Journal of Information Technology and Applications (RVJITA).
- 17) Editorial board member of the International Journal of Advances in Power Systems (IJAPS).
- 18) International advisory board member for the International Journal of Electrical, Electronics & Computer Science Engineering (IJECCSE).
- 19) Session co-chair of one session in the 20<sup>th</sup> International Conference on Microelectronics (ICM 2008).
- 20) Session chair of Speech Recognition session in ICTTA 2008, Damascus, Syria.

- 21) Session chair of Multi Disciplinary Signal Processing session in the 5<sup>th</sup> International Workshop on Signal Processing and its Applications (WoSPA 2008).
- 22) Session chair of Audio Processing and Coding session in ICECS 2003, Sharjah, United Arab Emirates.
- 23) Session chair of one poster session in ICECS 2003, Sharjah, United Arab Emirates.
- 24) Session chair of Audio Processing and Coding session in ICTTA 2004, Damascus, Syria.
- 25) Session chair of Speech Signal Processing session in ICTTA 2006, Damascus, Syria.
- 26) Session chair of Speech Recognition session in ISSPA 2007.
- 27) Reviewer of **two** journal paper to the IEEE Access journal.
- 28) Reviewer of **two** journal papers to the Engineering Applications of Artificial Intelligence.
- 29) Reviewer of **five** papers for the International Journal of Speech Technology.
- 30) Reviewer of **eight** papers to the IET Signal Processing Journal.
- 31) Reviewer of **one** journal paper to the Digital Signal Processing journal.
- 32) Reviewer of **one** paper to the Journal of Franklin Institute.
- 33) Reviewer of **two** journal paper to the Journal of Intelligent Systems.
- 34) Reviewer of one journal paper to the Journal of Electrical and Computer Engineering.
- 35) Reviewer of **two** papers to the International Journal of Computers and Applications.
- 36) Reviewer of **one** journal paper to the Journal of Discrete Dynamics in Nature and Society.
- 37) Reviewer of **one** paper to the EURASIP Journal on Applied Signal Processing.
- 38) Reviewer of **one** journal paper to the Signal Processing Journal.

- 39) Reviewer of one journal paper to the Journal of Ambient Intelligence and Humanized Computing.
- 40) Reviewer of **one** journal paper to the Journal of Engineering.
- 41) Reviewer of one journal paper to Engineering and Applied Science Research Journal
- 42) Reviewer of **two** papers to ICECS 2003, Sharjah, United Arab Emirates.
- 43) Reviewer of **one** paper to ICCCP '2005, Muscat, Oman.
- 44) Reviewer of **one** paper to ISCAS 2006, Island of Kos, Greece.
- 45) Reviewer of **three** papers to Innovations for Information Technology 2006, Dubai, United Arab Emirates.
- 46) Reviewer of **ten** papers to the International Conference on Information Sciences, Signal Processing and its Applications (ISSPA 2007).
- 47) Reviewer of **four** papers to the International Conference on Signal Processing and Communications (ICSPC 2007).
- 48) Reviewer of **two** papers to the International Conference on Microelectronics (ICM 2008).
- 49) Reviewer of **six** papers to the 5<sup>th</sup> International Workshop on Signal Processing and its Applications (WoSPA 2008).
- 50) Reviewer of **one** paper to the 5th IEEE-GCC 2009-Communications and Signal Processing.
- 51) Reviewer of **three** papers to the 9<sup>th</sup> International Symposium on Signal Processing and Information Technology (ISSPIT 2009).
- 52) Reviewer of **two** papers to the 7<sup>th</sup> International Symposium on Mechatronics and its Applications.
- 53) Reviewer of **one** paper to the Jordanian International Electrical and Electronics Engineering Conference, JIEEEEC 2011.
- 54) Reviewer of **one** paper to the EUSIPCO 2011 (19th European Signal Processing Conference 2011).
- 55) Reviewer of **two** papers to the 2nd International Conference on Communications and Information Technology (ICCIT-2012): Digital Information Management.

- 56) Reviewer of **seven** papers to the 20th European Signal Processing Conference (EUSIPCO 2012, Bucharest, August 27-31).
- 57) Reviewer of **three** papers to the 2014 International Conference on Electrical and Computer Engineering (2014 ICECE), Dhaka, Bangladesh.
- 58) Reviewer of **one** paper to The 2nd International Conference on Communications, Signal Processing, and their Applications (ICCSPA'15), Sharjah, United Arab Emirates.
- 59) Reviewer of **two** papers to the 7<sup>th</sup> International Forum on Engineering Education (IFEE2015), University of Sharjah, UAE.
- 60) Reviewer of **six** papers to the 15th IEEE International Symposium on Signal Processing and Information Technology 2015 (ISSPIT 2015), Abu Dhabi, UAE.
- 61) Reviewer of one paper to the 25th European Signal Processing Conference (EUSIPCO 2017, Greece, August 28- September 2).
- 62) Reviewer of two papers to the 2019 IEEE International Symposium on Signal Processing and Information Technology (ISSPIT 2019).
- 63) TPC member and reviewer of 3 papers to the 7th International Conference on Computer Science & Information Technology (CSIT2016), Amman, Jordan, July 2016.
- 64) TPC member and reviewer for ICCSPA'19 (2019 3rd International Conference on Communications, Signal Processing, and their Applications).
- 65) TPC member and reviewer for the 2019 International Conference on Signal Processing and Information Security (ICSPIS) (ICSPIS'2019).
- 66) Judge of “Think Sciences” competition, UAE, April 20-24, 2013.
- 67) Judge of “Think Sciences” competition, UAE, April 19-22, 2014.
- 68) Judge of “Think Sciences” competition, UAE, May 4-6, 2015.
- 69) Judge of “Think Sciences” competition, UAE, April 16-19, 2016.
- 70) Judge of “Think Sciences” competition, UAE, April 17-19, 2017.
- 71) Judge of “Think Sciences” competition, UAE, April 15-17, 2018.

- 72) Judge of “Think Sciences” competition, UAE, February - March, 2019.
- 73) Judge in the IEEE Student Competition in the IEEE UAE Student Day, IEEE/UAE, May 2009.
- 74) Judge in the IEEE Student Competition in the IEEE UAE Student Day, IEEE/UAE, May 2011.
- 75) Judge in the IEEE Student Competition in the IEEE UAE Student Day, IEEE/UAE, May 2013.
- 76) Judge in the IEEE Student Competition in the IEEE UAE Student Day, IEEE/UAE, May 2014.
- 77) Department committee chair of Sharjah Islamic Bank research award (Spring 2015/2016).
- 78) Member of the Technical program committee (TPC) for the 20th European Signal Processing Conference (EUSIPCO 2012, Bucharest, August 27-31).
- 79) Member of the Technical Program Committee (TPC) for the Signal Processing and Applications (SPA) track of Mosharaka International Conference on Communications and Signal Processing (MIC-CSP2011), Jordan.
- 80) Member of the Technical Program Committee (TPC) for the Multimedia Communications (MMC) track of Mosharaka International Conference on Communications, Networking and Information Technology (MIC-CNIT2011), UAE.
- 81) Member of the Technical program committee (TPC) for the 25th European Signal Processing Conference (EUSIPCO 2017, Greece, August 28- September 2).
- 82) Participating in the training program “University of Sharjah Rules and Guidelines for Faculty Promotion”, April 11, 2016.

**Invited Talks:**

- 1) “Speech: Types and Applications”, University of Sharjah, UAE, March 2009.
- 2) “Talking Condition Recognition”, University of Sharjah, UAE, May 2006.
- 3) “Speaker Recognition Under the Neutral and Stressful Talking Conditions”, University of Sharjah, UAE, May 2005.
- 4) “Determining the Optimum Value of Number of Poles Under the Shouted Talking

- Condition of Text-Dependent Speaker Identification”, University of Sharjah, Sharjah, UAE, December 2002.
- 5) "Text Dependent Speaker Identification Under Normal and Stressful Talking Conditions", University of Sharjah, Sharjah, UAE, December 2001.
  - 6) "Text Dependent Speaker Identification Systems", University of Sharjah, Sharjah, UAE, November 1999.

### **Membership of Societies:**

1. Member of the IEEE Signal Processing Society.
2. Editorial Board member of SciFed Journal of Artificial Intelligence. <http://scifed.com/journal-of-artificial-intelligence/editorial-board.php>
3. Editorial Board member of International Journal of Applied Engineering Research (IJAER).
4. Member of the International Conference on Computer, Communication and Information Technologies (ICCCIT) scientific committee.
5. Editorial Board member of Rising Vision Journal of Information Technology and Applications (RVJITA).
6. Editorial board member of the International Journal of Advances in Power Systems (IJAPS).
7. International advisory board member for the International Journal of Electrical, Electronics & Computer Science Engineering (IJECSSE). <http://www.ijeecse.com/editorial-board>

### **Personal Data:**

Date of Birth: June 30, 1966

Place of Birth: Hebron, Palestine

Citizenship: Palestinian holding Jordanian passport

Marital Status: Married

Children: Five daughters