

## Yasser Ali Ismail, PhD

Electrical Engineering Department  
Southern University and A&M College  
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### Overview

A highly motivated detail-oriented professional with excellent organizational and results-oriented abilities. My educational background and diverse experiences have provided me with a wide knowledge and a strong set of skills that allow me to contribute in many fields of digital video and VLSI design (algorithmic and architecture levels), smart traffic system design, cybersecurity based Additive Manufacturing , and Internet of Video Things (IoVT).

### Research Interest:

- **Smart Traffic Systems- base Machine Learning Design.**
  - Develop smart systems based Deep Learning algorithms that can automatically count different objects. Such systems and algorithms are very helpful in designing new smart cities.
- **Internet of Video Things (IoVT).**
  - Design and analysis of video surveillance systems, for homeland security applications, that match the allowed hardware complexity of the Internet of Video Things (IoVT) infrastructure.
- **Digital Video Processing Algorithms/Architectures levels.**
  - Design and analysis of video processing algorithms and architectures. My research involves Video Compression algorithms and architectures, specifically Motion Estimation and Compensation, DCT transform and Vector Quantization.
- **VLSI and FPGA Design (Low-Power and High-Speed Performance Embedded Systems).**
  - Design video systems taking into consideration optimizing the encoding speed and study the effect on both the area and power consumption of the designed systems. Systems are tested and implemented in either FPGA or ASIC flow design.
- **Wireless and Digital Communication Systems.**
  - Design and analysis of several techniques and systems that help in compressing of the transmitted bit-rate over wireless channels. I consider speech transmission over wireless communication systems.

### Education

- PhD: University of Louisiana at Lafayette, Lafayette, LA, USA, Computer Engineering, 2010.
- MSc: University of Louisiana at Lafayette, Lafayette, LA, USA, Computer Engineering, 2007.
- MS: Mansoura University, Mansoura, Egypt, Electrical Communications Engineering, 2002.
- BS: Mansoura University, Mansoura, Egypt, Electrical Communications Engineering, 1999. (Ranked 2/400).

### Honors and Awards

- Best researcher award for the year 2019 by Southern University and A&M College – USA.
- Listed in Marquis Who's Who in America 2009 and 2010.
- Third place winner in “the student paper contest” at the University of Louisiana at Lafayette in 2009 and 2008.
- Honored Student, The University of Louisiana at Lafayette Honors Convocation Committee (2006) and (2007).
- First Rank Graduate in MS, Mansoura University, Mansoura, Egypt (2003).

- Second Rank Graduate in BS, Mansoura University, Mansoura, Egypt (1999).

## Appointments and Teaching Experience

- Assistant Professor, Southern University and A&M College, Electrical Engineering Dept., Baton Rouge, LA, USA, August 2017 - Current.
- Assistant Professor, Mansoura University, Electronics and Communications Dept., Egypt, July 2016 - August 2017.
- Adjunct Assistant Professor, Zewail City of Science and Technology - University of Science and Technology - Zewail City, Egypt, September 2016 - June 2017.
- Assistant Professor, University of Bahrain, Computer Engineering Dept., Bahrain, September 2012 - June 2016.
- Assistant Professor, Umm Al-Qura University, Computer Science Dept., Makkah, Kingdom of Saudi Arabia, October 2010 - July 2012.
- Teaching Assistant, College of Engineering – Electrical and Computer Engineering Dept., University of Louisiana at Lafayette (ULL), Lafayette, LA, USA, January 2005 - May 2010.
- Teaching Assistant, the Center for Advanced Computer Studies (CACs), University of Louisiana at Lafayette, Lafayette (ULL), LA, USA, January 2005 - May 2010.
- Teaching Assistant, Mansoura University, Electronics and Communications Dept., Egypt, January 2001 - January 2005.

## Courses taught

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|---|--|
| • Microprocessors, Computer Design and Implementation | • VLSI design of embedded systems        |
| • Digital Logic Design Circuits                       | • Computer Architecture and Organization |
| • Design and Analysis of Algorithms                   | • Electronics I/II/III                   |
| • Electromagnetic Waves                               | • Digital Signal Processing              |
| • Signals and Systems                                 | • Programming Languages                  |
| • Digital communication system                        | • Image Processing and Computer Vision   |
| • Electrical Circuits I/II                            | • Troubleshooting                        |
|   | • Robotic Design and Implementation      |
|   | • An Introduction to Cybersecurity       |

## Awarded Grant

- Supervised Undergraduate Research Experiences (SURE) Competition, BOARD OF REGENTS, Baton Rouge 2020-2021. (Role: Supervise undergraduate student; LaBrea Brumfield).
- Supervised Undergraduate Research Experiences (SURE) Competition, BOARD OF REGENTS, Baton Rouge 2020-2021. (Role: Supervise undergraduate student; Dailynn Thomas).
- Enhancing Additive Manufacturing Education with Cybersecurity and Virtual Reality – Funded by the National Science Foundation (NSF) (2019 – 2024), Award Id: 1915520. (Role: Co-PI) (\$ 851,877)
- Targeted Infusion Project: A Computer Engineering Research Lab (CERL) at Southern University and A&M College (SUBR) – Funded by the National Science Foundation (NSF) (2019 – 2021), Award Id: 1912397. (Role: PI) (\$ 396,190)
- Evaluation of Counting Device for Pedestrians and Bicyclists - Funded by Louisiana Transportation Research Center (LTRC) (2018 – 2019), Award Id: LTRC 19-1SA. (Role: PI) (\$ 85,792)
- Automatic Recognition of Arabic handwriting in Historical Manuscripts - Funded by the King Abdul-Aziz City

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for Science and Technology (KACST) (2014 - 2015). (Role: Co-PI) (\$ 379,337)

- Fast and Smart Security Cameras for Video Surveillance systems in Hajj Rites – Funded by The Custodian of the Two Holy Mosques Institute of Hajj researches – KSA (2014-2015). (Role: PI) (\$ 35,000)
- ASIC Design of a Low Complexity High Speed H.265/HEVC for Wireless Transmission Video Surveillance System - Funded by University of Bahrain (2014 -2015). (Role: PI) (\$ 13,297)
- Fast video surveillance system for Hajj rites security - Funded by the Transportation and Crowd Management Center of Research Excellence (2014 - 2015). (Role: PI) (\$ 26,595)
- US-Bahrain Cooperative Research with Central Michigan University: Intelligent Video Surveillance Systems for Hajj — Funded by the National Science Foundation (NSF) (2013 – 2014), Award Id: 1341126. (Role: Co-PI) (\$ 36,649)
- Fast Video Surveillance system for the roadway security monitoring — Funded by University of Bahrain (2012 - 2013). (Role: PI) (\$ 13,297)
- Desktop and Mobil-phone Secure Backup System hosted on a Storage Cloud — Funded by the Center of Research for Hajj and Omrah – Kingdom of Saudi Arabia (KSA) (2011 - 2012). (Role: Co-PI) (\$ 132,978)

### Master Thesis Supervision

- Surya Veera Reddy “**Predicting Material Composition By Analyzing Color In Copper Silver Gold Alloys**” Southern University and A&M College, Electrical Engineering Department, (2021).
- Sunday B. Anwansedo “**5G Connected Healthcare**” Southern University and A&M College, Electrical Engineering Department, (2020).
- Willson Junior Meli Ngong “**Video Based Automated Pedestrians Counting Algorithms for Smart Cities**” Southern University and A&M College, Electrical Engineering Department, (2020).
- Ali H Al Majed “**Smart Detection Algorithms Under Different Weather Conditions**” Southern University and A&M College, Electrical Engineering Department, (2020).
- Raja Naga Rahul Paramkusam “**Synthesis and Analytical Characterization of Graphene Oxide and Reduced Graphene Oxide for Gas Sensing Applications**” Southern University and A&M College, Electrical Engineering Department, (2019).
- De’Shon Swafford “**Fabrication of Zinc Oxide Varistor used in Gas Sensing Application**” Southern University and A&M College, Electrical Engineering Department, (2019).
- Yeshak A. Dabels “**Miniaturization of Chemical Identification by Magnetoelastic Sensing (CHIMES) Technology**” Southern University and A&M College, Electrical Engineering Department, (2018).
- Mohamed Nabil Hammad “**High Speed On-Chip Motion Estimation Co-Processor for H.265/HEVC Standard,**” University of Bahrain, Computer Engineering Department, (2016).

### Publications

#### Journal Papers

1. **Yasser Ismail**, Mohamed Hammad, Esam Hagra, and Wael Elmedany “Homeland Security Video Surveillance System Utilizing the Internet of Things (IoT) for Smart Cities” accepted to be published at IET Computers & Digital Technique journal, 2020.
2. Willson Meli, Fred Lacy, and **Yasser Ismail** “Video-Based Automated Pedestrians Counting Algorithms for Smart Cities” International Journal of Computing and Digital Systems (IJCDs), 2020.
3. Ali Al Majed, Fred Lacy, and **Yasser Ismail** “Smart Detection Under Different Weather Conditions” International Journal of Computing and Digital Systems (IJCDs), 2020.
4. Yeshak Dabels, **Yasser Ismail**, and Fred Lacy “CHIMES: Chemical Identification by Magneto Elastic Sensing” International Journal of Computing and Digital Systems (IJCDs), vol. 9, issue 4, July 2020.

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5. Opeyemi Ojajuni, **Yasser Ismail** and Albertha Lawson, "Distributed Denial-of-Service (DDoS) Attack Detection and Mitigation for Internet of Things (IoT)" International Journal of Technology Diffusion (IJTD), 2020.
  6. Chase Richardson, Ali Ghawwas, **Yasser Ismail**, Raynaud Henton, and Jiecai luo, " Multiple Smart Phones Inductive Charging Station System " International Journal of Computing and Digital Systems (IJCDS), vol. 7, issue. 6, November 2018.
  7. Samar Ali, Ashraf Badawi, and **Yasser Ismail**, "Adaptive Multi-connection Scalable Video Coding for Wireless Area Networks," International Journal of Computing and Digital Systems (IJCDS), vol. 7, issue. 3, May 2018.
  8. **Yasser Ismail**, "6-DOF Robotic Arm Using Haptic Feedback Wired and Wireless Platforms," International Journal of Computing Network Technology (IJCNT), vol. 4, issue. 2, May 2016.
  9. **Yasser Ismail**, "FPGA Implementation of Fast and Efficient CODEC for H.264/AVC Real Time Video Applications," International Journal of Technology Diffusion (IJTD) - USA, vol. 7, issue. 1, March 2016.
  10. **Yasser Ismail**, "A cost – effective Programmable SoC for H.265/HEVC Full Search Motion Estimation using Xilinx ZYNQ-7 ZC706 FPGA," International Journal of Computing Network Technology (IJCNT), vol. 4, issue. 1, January 2016.
  11. **Yasser Ismail**, Ahmed Abdelgawad, Sherif El-etriby, "High speed on-chip multiple cosine transform generator," Journal of Real-Time Image Processing, Springer, ISSN: 1861-8200, DOI 10.1007/s11554-015-0528-0, (print version), and ISSN: 1861-8219 (electronic version), September 2<sup>nd</sup>, 2015.
  12. **Yasser Ismail**, "A complete Verification of a Full Search Motion Estimation Engine," International Journal of Computing and Digital Systems, 2015. Int. J. Dig. Sys. 4, No. 4, pp. 221-232, Oct. 2015.
  13. **Yasser Ismail**, "High Speed Transform Coding on Chip for Wireless Video Surveillance Systems," International Journal of Computing and Digital Systems, 2015. Int. J. Dig. Sys. 4, No. 2, pp. 81-89, Apr. – 2015.
  14. **Yasser Ismail**, Wael El-Medany, Hessa Al-Junaïd, and Ahmed Abdelgawad, "High Performance Architecture for Real-time HDTV Broadcasting", Journal of Real-Time Image Processing, Springer, Volume 11, Issue 4, pp 633–644, ISSN: 1861-8200 (print version), and ISSN: 1861-8219 (electronic version), May 27, 2014.
  15. **Yasser Ismail**, "A Fast Diamond Motion Estimation Search Algorithm for Real Time Video Applications", International Journal of Computing and Digital Systems, Dig. Sys. 3, No. 2, pp. 101-110, May 1<sup>st</sup>, 2014.
  16. **Yasser Ismail**, "A Novel Lattice Architecture for High Speed Discrete MultiTone (DMT) Modulation", International Journal of Computing and Digital Systems, Dig. Sys. 2, No. 2, pp. 11-18, April 2013.
  17. **Yasser Ismail**, Jason McNeely, Mohsen Shaaban, and Magdy A. Bayoumi, "Fast Motion Estimation Algorithm Using Dynamic Models for H.264 Video Coding," IEEE Transactions on Circuits and Systems for Video Technology (TCSVT), Volume 22, Issue 1, pp. 28 – 42, January 2012.
  18. Sumeer Goel, **Yasser Ismail**, and Magdy A. Bayoumi, " High-speed Motion Estimation Architecture for Real-time Video Transmission," Oxford Journals - The Computer Journal (2012) 55(1): 35-46 first published online April 29, 2011.
  19. **Yasser Ismail**, Mohsen Shaaban, Jason McNeely, and Magdy A. Bayoumi, "An Efficient Adaptive High Speed Manipulation Architecture for Fast Variable Padding Frequency Domain Motion Estimation ," IEEE Transactions on Very Large Scale Integration (VLSI) Systems, . Volume: PP , Issue: 99 , pp. 1 – 10, 2010.
  20. **Yasser Ismail**, Mohamed Elgamel, and Magdy Bayoumi, "Fast Variable Padding Motion Estimation Using Smart Zero Motion Prejudgment technique for Pixel and Frequency Domains," IEEE Transactions

### **Books**

1. **Yasser Ismail**, et al., " Internet of Things (IoT) for Automated and Smart Applications" IntechOpen, ISBN: 978-1-78984-096-4, Website: <https://www.intechopen.com/books/internet-of-things-iot-for-automated-and-smart-applications>, 2019.
2. **Yasser Ismail** and M. Bayoumi, "Smart Algorithms and Architectures for Real Time Video Transmission," VDM Verlag, Saarbrücken, ISBN-NR.: 978-3-639-34323-6, Germany, 2011.

### **Book Chapter**

1. Book title: Smart Algorithms and Architectures for Real Time Video Transmission  
Chapter title: Introductory Chapter: Internet of Things (IoT) Importance and Its Applications  
Authors: Yasser Ismail
2. Book title: The Future of Television - Convergence of Content and Technology  
Chapter title: High-Efficient Video Transmission for HDTV Broadcasting  
Authors: Yasser Ismail
3. Book title: Search Algorithms (ISBN 980-953-307-672-5)  
Chapter title: Fast Motion Estimation System Using Dynamic Models for H.264/AVC Video Coding  
Authors: Yasser Ismail
4. Book title: Search Algorithms and Applications (ISBN 978-953-307-483-2)  
Chapter title: Enhanced Efficient Diamond Search Algorithm for Fast Block Motion Estimation  
Authors: Yasser Ismail and Magdy A. Bayoumi

### **Conference papers**

1. Mohamed Hammad, **Yasser Ismail**, and Wael Elmedany "Intrusion Detection System using Feature Selection With Clustering and Classification Machine Learning Algorithms on the UNSW-NB15 dataset" 2020 IEEE international conference on innovation and intelligence for informatics, computing, and technologies, 20-21 December 2020 – Bahrain.
2. Mahmoud Darwich, **Yasser Ismail**, Talal Darwich, and Magdy Bayoumi "Cost-Efficient Storage for On-Demand Video Streaming on Cloud" IEEE Virtual World Forum on Internet of Things, New Orleans, 2020
3. Opeyemi Ojajuni, **Yasser Ismail**, and Albertha Lawson "Distributed Denial-of-Service (DDoS) Attack Detection and Mitigation for Internet of Things (IoT)," 76th Joint Meeting of BKX and NIS, Beta Kappa Chi and National Institute of Science, March 28-30, 2019 - Atlanta, GA.
4. **Yasser Ismail**, Mohamed Hammad, and Wael El-Medany " Homeland Security Video Surveillance System for Smart Cities," Accepted in 2018 International conference on Innovation and Intelligence for Informatics, Computing and Technologies, Bahrain, November 2018.
5. Md Anam Mahmud, Ahmed Abdelgawad, Kumar Yelamarthi, and **Yasser A. Ismail**, " Signal Processing Techniques for IoT-based Structural Health Monitoring," 29th International Conference on Microelectronics (ICM), pp: 1-5, Beirut, Lebanon, 10-13 Dec. 2017.
6. A. Abdelgawad, **Y. Ismail**, K. Yelamarthi, "Moving Target Tracking using a Mobile Robot," IEEE International Symposium on Monitoring & Surveillance Research, June 2015.
7. **Yasser Ismail**, Wael El-Medany, Hessa Al-Junaid, and Ahmed Abdelgawad "Fast Co-Processor for Real Time Video Transmission," Proc. of the IEEE International Conference on Electronics, Circuits, and Systems, ICECS, Abu Dhabi, UAE, pp. 945 – 949, December 8-11, 2013.
8. Wael El-Medany and **Yasser Ismail** "Mobile Learning Laboratory for Hardware Courses," IEEE International Conference on e-Learning "Best Practices in Management, Design and Development of e-Courses: Standards of Excellence and Creativity", pp.51,54, 7-9 May 2013
9. **Yasser Ismail** and Sherif El-etriby "Fast diamond search algorithm for real time video coding," Proc. of

the IEEE Workshop ICNC, Maui, Hawaii, USA, pp. 729 – 733, 30 January 2012.

10. **Yasser Ismail**, Sherif El-etriby, and Magdy A. Bayoumi, " Frequency Domain: Efficient and High-Speed Technology For Video Transmission," Proc. of the IEEE Workshop on Signal Processing Systems (SIPS), Beirut, Lebanon, pp. 278 – 282, October, 2011.
11. **Yasser Ismail** and Magdy A. Bayoumi, " Efficient high-speed lattice-CORDIC IFFT architecture for DMT transmitter," Proc. of the IEEE Workshop on Signal Processing Systems (SIPS), San Francisco, CA, USA, pp. 151 - 155, October 6-8, 2010.
12. **Yasser Ismail**, Jason McNeely, Mohsen Shaaban, and Magdy A. Bayoumi, "A Fast-Discrete Transform Architecture for Frequency Domain Motion Estimation," IEEE Int. Conference on Image Processing (ICIP), San Francisco Bay Area, California, U.S.A, pp. 1249 – 1252, September 26-29, 2010.
13. **Yasser Ismail**, Jason McNeely, Mohsen Shaaban, Mohamed Elgamel, and Magdy A. Bayoumi, " An efficient area manipulation architecture for frequency domain encoding process," IEEE International Symposium on Circuits and Systems (ISCAS 2010), Paris, France, pp. 2638 – 2641, 2010.
14. **Yasser Ismail**, Mohsen Shaaban, Jason McNeely, and Magdy A. Bayoumi, "An Efficient Manipulation architecture for Real Time Video Coding in Frequency Domain," IEEE Int. Conference on Image Processing (ICIP), Cairo, Egypt, PP. 3281 – 3284, November 7-11, 2009.
15. **Yasser Ismail**, Jason McNeely, Mohsen Shaaban, and Magdy A. Bayoumi, "Enhanced Efficient Diamond Search Algorithm for Fast Block Motion Estimation," IEEE International Symposium on Circuits and Systems (ISCAS 2009), Taipei International Convention Center, Taiwan, pp. 3198 – 3201, 24 - 27 May 2009.
16. Jason McNeely, **Yasser Ismail**, Magdy A. Bayoumi, and Peiyi Zhao, "Power Analysis of The Huffman Decoding Tree," Proc. of the IEEE Int. Conference on Image Processing (ICIP), San Diego, California, U.S.A, pp. 1416 – 1419, October 12–15, 2008.
17. **Yasser Ismail**, Jason McNeely, Mohsen Shaaban, Magdy Bayoumi, "A Generalized Fast Motion Estimation Algorithm using External and Internal Stop Search Techniques for H.264 Video Coding Standard," IEEE International Symposium on Circuits and Systems (ISCAS 2008), Seattle, Washington, pp. 3574 – 3577, May 18-21, 2008.
18. **Yasser Ismail**, Mohamed Elgamel, and Magdy A. Bayoumi, "An Adaptive Block Size Phase Correlation Motion Estimation Using Smart Multireference Frames Selection in Frequency Domain," Proc. of IEEE Asilomar Conference on Signals, Systems, and Computers, Pacific Grove, California, pp. 239 – 242, November 4-7, 2007.
19. **Yasser Ismail**, Mohamed Elgamel, and Magdy A. Bayoumi, "adaptive techniques for a fast Frequency Domain Motion Estimation," Proc. of IEEE Workshop on Signal Processing Systems (SIPS), Shanghai, China, pp. 331-336, October 17-19, 2007.
20. **Yasser Ismail**, Mohamed Elgamel, and Magdy A. Bayoumi, "A Fast Block-Based Motion Estimation Using Early Stop Search Techniques for H.264/AVC Standard," Proc. of the 48th IEEE International Midwest Symposium on Circuits and Systems, Montreal, Canada, pp. 397 – 400, Aug 5-8, 2007.
21. **Yasser Ismail**, M. Shaaban, and M. Bayoumi, "An Adaptive Block Size Phase Correlation Motion Estimation Using Adaptive Early Search Termination Technique," IEEE International Symposium on Circuits and Systems (ISCAS), New Orleans, pp.3423–3426, May 2007.
22. J.Luis TecpanecatI-Xihuitl, Ruth M. Aguilar-Ponce, **Yasser Ismail**, and Magdy A. Bayoumi "Efficient Mutliplierless Polyphase FIR Filter based on New Distributed Arithmetic Architecture," Proc. of IEEE Asilomar Conference on Signals, Systems, and Computers, Pacific Grove, California, pp. 958 – 962, November 4-7, 2007.
23. S. Goel, **Yasser Ismail**, P. Devulapalli, J. McNeely, and M. Bayoumi, "An Efficient Data Reuse Motion Estimation Engine," Proc. of IEEE Signal Processing Systems Design and Implementation, 2006, SIPS,

Banff, Canada, pp.383-386, Oct. 2006.

24. S. Goel, **Yasser Ismail**, and M. Bayoumi, "Adaptive search window size algorithm for fast motion estimation in H.264/AVC standard," Proc. of the 48th IEEE Intl. Midwest Symposium on Circuits and Systems, Ohio, pp. 1557-1560, Aug. 2005.

### Courses developed at Southern University and A&M College

- **ELEN 435: Image processing and Computer Vision.** (Credit, 3 hours) (Lecture, 3 hours). This course is intended to teach students the concepts of visual information, feature extraction, Image enhancement in the spatial domain, Image enhancement in the frequency domain, Image restoration, Color image processing, Image compression, Morphological image processing, Image segmentation, and image representation.
- **ELEN 464: Mechatronics.** (Credit, 3 hours) (Lecture, 3 Hours) – Covers computer control of electromechanical systems, automatic data acquisition. Computerized instrumentation and testing. The embedded computer might be a combination of microprocessors, microcontrollers, personal computers, and /or programmable controllers. Students are required to test to design, assemble, and test actual systems.
- **MEEN 4xx: Additive Manufacturing Security & Security Framework.** This course is designed for the purpose of the NSF Award Id: 1912397. It will provide students with the knowledge of Additive Manufacturing applications and how to make them more secure. Virtual Reality simulations will be used to demonstrate possible risks from cyberattacks and their consequences.

### Professional development

- Session chair at the IEEE 6th World Forum on Internet of Things, 5-9 April 2020, New Orleans, Louisiana, USA
- Session chair at the 63rd IEEE International Midwest Symposium on Circuits and Systems, 2018, 2019, and 2020
- Member in the Organizing Committee of the Gulf States Math Alliance Conference held at Southern University and A&M College, February 14-16, 2020
- Track chair at the IEEE Green Technologies Conference, April 3-6, 2019, Lafayette, Louisiana, USA
- Certificate from Quality Matters (QM) of Independent Applying the QM Rubric (APPQMR), September 20, 2019
- Supervisor of the IEEE student chapter group at Southern University and A&M College 2018 – Current
- Editorial Board Member for Frontiers of Mechatronical Engineering FME, EnPress Publisher Editorial - USA, 2018 - current
- Serve on the technical program committee for MobiApps 2016 (Mobile Applications, Vienna, Austria 2016)
- Invited to serve as a lead guest editor for special issue in mobile information systems – Hindawi publishing corporation September 2016.
- Member in Bahrain Society of academics 2014 – 2016
- Session chair at ICECS 2013, Abu Dhabi - UAE
- Active member in the IEEE student chapter at the University of Louisiana (2006-2009).
- Member in the Organizing Committee of ISCAS 2007 symposium, New Orleans, LA.

### Synergistic Activities

- **NSF Panel Reviewer:**
  - Serve as a reviewer for NSF 2019 - present
- **School and College Service:**
  - Serve as a commencement Assistant University Marshal for the College of Sciences and Engineering

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(CSE) 2018 - Current

- Electrical Engineering Department committee member (member)
- The Electrical Engineering Department assessment committee (member) Spring-2018
- The IEEE Student Advisor Committee (member) Spring-2018
- The Electrical Engineering Department Recruiting/Outreach Committee (Chair) Spring-2018
- The Engineers Week Committee (Chair) Spring-2018
- The Electrical Engineering Department Arduino Club (Chair) Fall-2018 - Current

• **Journal Reviewer:**

- Journal of Real-Time Image Processing (JRTIP), Springer
- IEEE Transaction on Circuit and System for Video Technology (TCSVT)
- IEEE Transactions on Very Large Scale Integration (VLSI) Systems
- IEEE Transactions on Image Processing
- International Journal of Computing and Digital Systems (IJCDs)
- International Journal of Technology Diffusion (IJTD)

• **Technical Conference Reviewer:**

- SCS: University of Bahrain "Smart Cities Symposium" 22-23 April 2018
- ISCAS: IEEE International Symposium on Circuits and Systems
- ICASSP: IEEE International Conference on Acoustics, Speech and Signal Processing
- ICIP: IEEE International Conference on Image Processing
- SIPS: IEEE Workshop on Signal Processing Systems
- GCCCE: IEEE-GCC Conference and Exhibition
- ICECS: IEEE International Conference on Electronics, Circuits, and Systems
- MWSCAS: IEEE International Midwest Symposium on Circuits and Systems

• **Conference Organizer**

- The IEEE 6th World Forum on the Internet of Things (IoT) - WF-IoT 2020, New Orleans, USA, June 2<sup>nd</sup> – June 16<sup>th</sup>, Chair of Edge and Fog Computing session.
  - The 63<sup>rd</sup> IEEE International Midwest Symposium on Circuits and Systems, August 9 -12, 2020, , MA, USA
  - The Gulf States Math Alliance Conference held at Southern University and A&M College, February 14-16, 2020
  - 62<sup>nd</sup> IEEE International Midwest Symposium on Circuits and Systems, Dallas, TX, USA, Aug. 4-7, 2019, Chair of Control Systems, Mechatronics, and Robotics session.
  - The IEEE Green Technologies conference, 3-6 April, Lafayette, LA, 2019
  - The 9th International Conference on Ambient Systems, Networks and Technologies (ANT 2018), Porto, Portugal May 8-11, 2018
  - M.Sc./Ph.D. students forum Chair: IEEE International Midwest Symposium on Circuits and Systems, Windsor, ON, Canada August 5th-8th, 2018
  - Serve on the technical program committee for DPNOC'17 (International Workshop on Design and Performance of Networks on Chip 2017). August 15-18, 2016, Montreal, Quebec, Canada
  - Organizing Committee for IEEE ICECS 2013, Abu Dhabi, UAE
  - Organizing Committee for IEEE ISCAS 2007, New Orleans, LA, USA
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- **Collaborators & Other Affiliations**

- Ashok Srivastava, Louisiana State University, USA
- Jesmin Khan, Tuskegee University, USA
- Magdy Bayoum, University of Louisiana at Lafayette, USA
- Ahmed Abdelgawad, Central Michigan University, USA
- Jason McNeely, University of Alaska Fairbanks, USA
- Ahmed Khattab, Cairo University, Egypt
- Wael El-Medany, Bahrain University, Bahrain
- Mahmoud Darwich, Bloomsburg University of Pennsylvania, USA

## **Skills**

- Cadence, Synopsys, HSPICE, MAGIC, Mentor Graphics.
- VHDL.
- Matlab, Unix-cshell.
- C/C++, Perl, Python.
- Office tools.

## **Google Scholar**

<https://scholar.google.com/citations?user=eZriCdIAAAAJ>

## **References**

**Prof. Fred Lacy** (Ph.D. Entergy Corporation Endowed Professor and Chair)

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**Dr. Mahmoud Darwich**

Assistant Professor of Computer Science  
Mathematical and Digital Sciences Department  
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