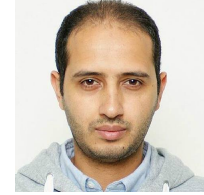


Hossam Mohamed Kasem

CONTACT INFORMATION

Electronic and Electrical communication Dept.
Department of Electrical Engineering
Faculty of Engineering at Tanta University
Tanta University
Tanta, El Gharbeya Egypt
+201224058659 +8615603025014
Tanta, El Gharbeya, Egypt - Postal Code:31521
hossam.kasem@f-eng.tanta.edu.eg
hossam.kasem@szu.edu.cn
hossam.kasem@ejust.edu.eg
hossamkasem1@gmail.com



RESEARCH INTERESTS

Machine Learning application in Digital Multimedia analysis. Deep Learning applications for image Super resolution. Deep Learning application for Medical imaging. Applications of Signal Processing in Wireless communications. Compressed Sensing applications in multimedia analysis. Audio and Multimedia compression. Applications of compressed sensing in wireless sensor network.

EDUCATION

Egypt-Japan University for Science and Technology (E-JUST), Egypt

Ph.D., School of Electronics, Communications and Computer Engineering, September 2015

School of Electronics, Communications, and Computer Engineering

- Thesis Title: *Applications of Compressed Sensing in Multimedia and Wireless communication.*
- Advisors: Maha Elsabrouty, Associate Professor and Osumu Muta, Associate Professor

Tanta University - Faculty of Engineering , Egypt

M.Sc., Electrical Engineering, July. 2012

- Topic: *VHDL Implementation of Orthogonal Frequency Division multiplexing.*
- Advisor: [Mohamed E. Nasr, Professor](#) and [Fathi abdelasame, Professor](#)

Tanta University - Faculty of Engineering , Egypt

B.Sc., Electrical Engineering, May 2004

- Cumulative Grade: very Good (with honorary degree, rank the second).
- Graduation Project Grade: Excellent
- Cumulative Grade: Distinction with Honor (Percentage : 83.57%, Equivalent GPA: 3.71/4.0). Cumulatively ranked the 2nd in the Department of Electronics and Electrical Communication among 350 students.

RESEARCH EXPERIENCE

Postdoctoral Research Fellow

2017 to present

Research Institute for Future Media Computing
Faculty of Computer Science Software Engineering
Shenzhen University
Shenzhen - China
Supervisor: Prof. [Jianmin Jiang](#) and [Kwok-Wai Hung](#), Ph.D

Assistant Professor September 2015 to present
 Electronics and Electrical communications Dept.,
 Faculty of Engineering
 Tanta University

Research Assistant September 2014 to June 2015
 Department of Advanced Information Technology ,
 Kyushu University- Japan
 INTERNSHIP
 Supervisors: Osumu Muta, Ph.D .

Ph.D. Student September 2012 to September. 2015
 School of Electronics, Communications, and Computer Engineering,
 School of Electronics, Communications, and Computer Engineering
 Egypt Japan University of science and Technology (EJUST)
 Supervisors: Maha Elsabrouty, Ph.D and Osumu Muta, Ph.D.

Research Assistant and Teaching Assistance April. 2005 to September. 2012
 Electronics and Electrical communication Dept.,
 Faculty of Engineering
 Tanta University
 Supervisors: Mohamed E. Nasr, Ph.D and Fathi Abdel Samea, Ph.D.

SUBMITTED
PAPERS

- J1** Jianmin Jiang, **Hossam Kasem**, Kwok-Wai Hung , “Robust and Spatial-Transformed Deep Image Super-resolution (ST-DISR),” *IEEE Transaction on Image Processing*.
- C1** Jianmin Jiang, **Hossam Kasem** and Kwok-Wai Hung , “Efficient spectrum sensing technique base on energy detector compressive sensing and de-noising techniques,” *IEEE Conference on Computer Vision and Pattern Recognition (CVPR’2019)*
- C2** **Hossam Kasem**, Jianmin Jiang, Kwok-Wai Hung , “STSR Robust Single Image Super-resolution via a Deep Spatial Transform,” *International Conference on Acoustics, Speech, and Signal Processing (ICAASP 2019)*.

RECENT
REFEREED
JOURNAL
PUBLICATIONS

- J1** Amr H. Hussien, **Hossam Kasem**, Mohamed A. Ezzat , “Efficient spectrum sensing technique base on energy detector compressive sensing and de-noising techniques,” *International Journal of Engineering and Technology*, Vol. 46 (2017) No. 1 pp. 1-8.
- J2** Ibrahim Al-Nahhal, Ahmed Emran1, **Hossam Kasem**, Adel B. Abd El-Rahman, Osamu Muta, Hiroshi Furukawa, “Flexible fractional K-best sphere decoding for uncoded MIMO channels,” *IEICE Communications Express*, Vol. 4 (2015) No. 1 pp. 20-25.

RECENT
REFEREED
CONFERENCE
PUBLICATIONS

- C1** **Hossam M. Kasem**, Kwok-Wai Hung and Jianmin Jiang, “Image Super-Resolution Using Spatial Transform Network ” *International Conference on Pattern Recognition, ICPR, 2018*.
- C2** **Hossam M. Kasem**, Mohamed Al-Nahhal, Tawfik Ismail and Mohamed E. Nasr, “FSO-SIMO System with SIM-DPSK over Log-normal Atmospheric Turbulence and Misalignment ” *19th International Conference on Transparent Optical Networks (ICTON 2017)*.
- C3** **Hossam M. Kasem**, Osamu Muta, Maha Elsabrouty and Hiroshi Furukawa, “Performance of Perceptual 1-Bit Compressed Sensing for Audio signal Compression ” *International Symposium on computer and communicationss, ISCC 2015*.
- C4** **Hossam M. Kasem**, Osamu Muta, Maha Elsabrouty and Hiroshi Furukawa, “Quantized Perceptual Compressed Sensing for Audio signal Compression, ” *Data Compression*

Conference, DCC 2015.

- C5 Hossam M. Kasem**, Maha El-Sabrouty, "The performance of One-bit Compressed Sensing with Perceptual Compressed Sensing for Audio Compression," *Third International Japan-Egypt Conference on Electronics, Communications and Computers*, 2015.
- C6 Adel B. Abd El-Rahman**, Ibrahim Al-Nahhal, Ahmed Emran, **Hossam Kasem**, "Fractional K-best Sphere Decoding Algorithm Over Rayleigh Fading MIMO Channels," *Second International Japan-Egypt Conference on Electronics, Communications and Computers*, 2014.
- C7 Hossam M. Kasem**, Maha El-Sabrouty, "A Comparative Study of Audio Compression Based on Compressed Sensing and Sparse Fast Fourier Transform (SFFT): Performance and Challenges," *International Symposium on Signal Processing and Information Technology IEEE ISSPIT 2013*
- C8 Hossam M Kasem**, Mohamed E Nasr, Amr H Hussein, "A High Fidelity OFDM Image Communication System with Chaotic Maps," *International Proceedings of Computer Science Information Technology (ICIIP 2012)*.
- C9 Amr M Riad**, Amr H Hussein, **Hossam M Kasem**, Atef Abou El-Azm, "A New Efficient Image Encryption Technique Based on Arnold and Idea Algorithms," *International Conference on Image and Information Processing (ICIIP 2012)*.
- C10 Hossam M Kasem**, Mohamed E Nasr, Elsayed A Sallam, FE Abd El-Samie, "Efficient Transmission of 1D and 2D Chaotic Map Encrypted Images with Orthogonal Frequency Division Multiplexing," *Tenth International Symposium on Signal Processing and Information Technology (ISSPIT)*, 2010.
- C11 Hossam M. Kasem**, Osamu Muta, Maha Elsabrouty and Hiroshi Frukawa, "The Effect of One-bit Compressed Sensing on Audio Compression for Digital Communication Systems," *RCS, IEICE Technical Report*, 2015 .
- C12 Hossam M. Kasem**, Osamu Muta, Maha Elsabrouty and Hiroshi Frukawa, "Performance of 1-bit Compressed Sensing for Audio Compression under AWGN Channel," *RCS, IEICE Technical Report*, 2015.
- C13 Hossam M. Kasem**, Osamu Muta, Maha Elsabrouty and Hiroshi Frukawa, "Cyclostationary Detection for Spectrum Sensing using Feature-Based Compressive Sensing," *RCS, IEICE Technical Report*, 2015.

AWARDS	Scholarship from the Egyptian Ministry of Higher Education and Scientific Research	
	• a Ph.D. program	2012-2015
	• at E-JUST University (including 9-months in a Japanese University).	
	Postdoctoral	
	• Research Institute for Future Media Computing, Shenzhen University	2017
	Best Paper Award	
	• Best paper awarded in JEC-EEC 2013 conference	
LANGUAGES	English (TOFEL score 85.)	
	Arabic (Mother Tongue).	
PRESENTATIONS	Statistical Meetings	

- ISSPIT Conference, Athens, Greece Dec. 2013
- ISCC Conference, Cyprus, July 2015

TEACHING EXPERIENCE

- Postgraduate-Assistant Professor Summer 2015 to present
- Cryptography and Network Security
 - Advanced Computer Networks
 - Advanced Researches
 - Information Security
 - Machine Learning Algorithms
 - Advanced Digital Signal Processing
- Undergraduate-Assistant Professor Summer 2015 to present
- **Advanced Microprocessor.** Course, Faculty of Engineering, Higher Technological Institute. **2016.**
 - **Microprocessor Interfacing .** Course, Faculty of Engineering, Higher Technological Institute. **2016.**
 - **Introduction to microprocessor.** Course, Faculty of Engineering, Higher Technological Institute. **2016.**
 - **Computer Security.** Course, Faculty of Engineering, Tanta University. **2016.**
 - **Computer network.** Course, Faculty of Engineering, Tanta University. **2016.**
 - **Computer and Network Security.** Course, Faculty of Engineering, Tanta University. **2015.**
 - **Digital signal Processing.** Course, Faculty of Engineering, Tanta University. **2015.**
 - **Eimage processing.** Course, Faculty of Engineering, Tanta University. **2015.**
 - **Network Security .** Course, Faculty of Engineering, Tanta University. **2012.**
 - **Communication laboratory.** Course, Faculty of Engineering, Tanta University. **2011.**
 - **Network Security .** Course, Faculty of Engineering, Tanta University. **2011.**
 - **Computer Technology .** Course, Faculty of Engineering, Tanta University. **2005.**
 - **Electrical and Electronic measurements.** Course, Faculty of Engineering, Tanta University. **2010.**
 - **Electrical and Electronic laboratory.** Course, Faculty of Engineering, Tanta University. **2010.**
 - **Signal Processing course.** Course, Faculty of Engineering, Tanta University. **2009.**
 - **Computer Technology .** Course, Faculty of Engineering, Tanta University. **2008.**

- **Modeling and Simulation** . Course, Faculty of Engineering, Tanta University. **2008.**
- **Pattern Recognition and Digital Image Processing** . Course, Faculty of Engineering, Tanta University. **2007.**
- **Computer and Network Security.** Course, Faculty of Engineering, Tanta University. **2006.**
- **Digital Communications.** Course, Faculty of Engineering, Tanta University. **2009.**
- **Computer Networks.** Course, Faculty of Engineering, Tanta University. **2009.**
- **Compilers** Course, Faculty of Engineering, Tanta University. **2008.**
- **Digital Electronics.** Course, Faculty of Engineering, Tanta University. **2007.**
- **Digital Electronics.** Course, Faculty of Engineering, Tanta University. **2006.**

SERVICE

- Judging Committee of Egyptian Engineering Day Sep. 2016
The Egyptian Engineering Day is an annual summit that facilitates the opportunity for the best engineers to present and fully explain their projects to the elite members of engineering field from all over Egypt.
- The committee of updating the postgraduate bylaw for the Faculty of Engineering, Tanta University.
- IThe committee of Quality assurance, Tanta University.
- IEEE signal processing society .
- Member of Technical program committee for JECEEC conference(2015 to Present).
- Reviewer for IEEE Transactions on Image Signal Processing Transaction Journal.
- Reviewer for EuraSip Transaction Journal.

GENERAL SKILLS

Effective Research and Development Capabilities
 Efficient Algorithms Design and Implementation
 Code Optimization for Resources and Performance
 Team Player with Leadership, Conflict Management, and Problem Solving Capabilities