

Curriculum vitae

Osama Elnahas Helaly

*Assistant Professor, Department of Electrical Engineering,
Assiut University, Egypt*

PhD in Electronics and Communication Engineering

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*Department of Electrical Engineering, Assiut University,
Assiut, 71515 (Egypt)*

Date of Birth: 8th May 1985

Nationality: Egyptian

Current Affiliation: *Postdoctoral Fellow at College of Electronics and Information Engineering, Shenzhen University, China.*



Research Interest

- *Data-driven signal processing in wireless communications,*
 - *Clock synchronization over wireless networks,*
 - *Array signal processing,*
 - *Resource allocation in heterogenous networks,*
 - *Cognitive Radio Networks,*
 - *Wideband Spectrum Sensing,*
 - *Game Theory,*
 - *Digital Signal and Image Processing,*
 - *Signal processing applications for wireless communication,*
 - *Energy Harvesting,*
 - *Compressive Sensing, and Optimization Algorithms.*
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Publication

Journal

1. **Osama Elnahas**, Yuan Ma, Yi Jiang and Zhi Quan, "Clock Synchronization in Wireless Networks Using Matrix Completion-Based Maximum Likelihood Estimation," in *IEEE Transactions on Wireless Communications*, vol. 19, no. 12, pp. 8220-8231, Dec. 2020.
2. Lianghai Xie, **Osama Elnahas**, Qinglin Zhao and Zhi Quan, "Data-Driven RF Transmit Power Calibration for Wireless Communication Systems," in *IEEE Wireless Communications Letters*, vol. 9, no. 5, pp. 721-725, May 2020.
3. Lianghai Xie, Zhi Quan, **Osama Elnahas**, and Qinglin Zhao, "Model-Free Adaptive Frequency Calibration for Voltage-Controlled Oscillators," in *China Communications*, May 2021.
4. **Osama Elnahas**, M. ElSabrouty, Osamu Muta and Hiroshi Furukawa, "Game Theoretic Approaches for Cooperative Spectrum Sensing in Energy-Harvesting Cognitive Radio Networks," in *IEEE Access*, vol. 6, pp. 11086-11100, 2018.
5. M. Abo-Zahhad, Sabah M. Ahmed and **O. Elnahas**, "A Wireless Emergency Telemedicine System for Patients Monitoring and Diagnosis", *International Journal of Telemedicine and Applications*, Hindawi Publishing Corporation, vol.2014, pp. 1-11, 2014.
6. M. Abo-Zahhad, Sabah M. Ahmed and **O. Elnahas**, "Android Based Remote Online Vital Signs Processing for Patient Monitoring and Diagnosis", *Sop Transactions on Signal Processing*, 2015.

International conference

1. **Osama Elnahas**, and Maha ElSabrouty, "Wideband Spectrum Sensing Technique Based on Multitask Compressive Sensing", in *IEEE Symposium on Computers and Communications (ISCC)*, Messina, Italy, 27-30 June, 2016.
 2. **Osama Elnahas**, and Maha ElSabrouty, "Cyclostationary-based cooperative compressed wideband spectrum sensing in cognitive radio networks", in *Wireless Days*, Porto, 2017.
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Education

<p>Feb. 2015 to Feb. 2018</p>	<p>PhD student in Electronics and Communication Engineering Egypt-Japan University of Science and Technology, School of Electronics, Communication and Computer Engineering, Department of Electronics and Communication Engineering Thesis Topic: “Spectrum Sensing and coexistence for next generation wireless networks” Complete at least 18 credit hours within the following guidelines: <i>1st and 2nd semester:</i> Coursework of 18 credit hours, including core courses of 6 credit hours, elective courses of 6 credit hours and a Research Seminar of 6 credit hours.</p>
<p>Mars 2017 to Dec. 2017</p>	<p>Visiting researcher in Kyushu University, Fukuoka, Japan</p>
<p>Sep. 2009 October 2014</p>	<p>Master grad in Electronics and Communication Engineering Assiut University, Faculty of Engineering, Department of Electrical Engineering Thesis Topic: “A Wireless Emergency Telemedicine System for Patients Monitoring and Diagnosis” Graduate Courses: Computational Methods and Programming, Digital Communication and Digital Signal Processing, Electronic Circuits, Data Networks and Advanced Topics in Wireless Communications.</p>

Undergraduate Education

<p>Oct. 2002 to July. 2007</p>	<p>Bachelor degree in Electrical Engineering. Department of Electrical Engineering, Faculty of Engineering, Assiut University, Assiut (Egypt) Cumulative Grade: Distinction with honor (Percentage: 90.92 %) Rank: the 1st in the Department of Electrical Engineering. Graduation Project: “Wireless Telemedicine System”. Graduation Project Grade: Distinction</p>
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Teaching

May 2018 to Feb. 2019	Assistant Professor Department of Electrical Engineering, Faculty of Engineering, Assiut University, Assiut (Egypt).			
Sep. 2014 to Feb. 2015	Teaching Assisstant Department of Electrical Engineering, Faculty of Engineering, Assiut University, Assiut (Egypt) Main activities and responsibilities include: <ul style="list-style-type: none"> • Teach exercises and LAB sessions to undergraduate students. • Grading exams and co-supervise graduation projects. 			
Jan. 2009 to Sep. 2014	Demonstrator Department of Electrical Engineering, Faculty of Engineering, Assiut University, Assiut (Egypt) Main activities and responsibilities include: Preparing and delivering lab experiments and tutorials. Discussing and grading homework assignments. Courses include: <table border="1" data-bbox="459 1039 1390 1402" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> ▪ Digital Signal processing. ▪ Antennas and wave propagation. ▪ Digital circuit design. ▪ Numerical Analysis. ▪ Semiconductor Devices. ▪ Signals and System Analysis. ▪ Electrical Circuits </td> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> ▪ Electronic Circuits. ▪ Probability Theory ▪ Wireless Communications. ▪ Electronic Labs. ▪ Communications Lab. ▪ Analog and Digital Communication Systems. ▪ Computer Programming </td> </tr> </table>		<ul style="list-style-type: none"> ▪ Digital Signal processing. ▪ Antennas and wave propagation. ▪ Digital circuit design. ▪ Numerical Analysis. ▪ Semiconductor Devices. ▪ Signals and System Analysis. ▪ Electrical Circuits 	<ul style="list-style-type: none"> ▪ Electronic Circuits. ▪ Probability Theory ▪ Wireless Communications. ▪ Electronic Labs. ▪ Communications Lab. ▪ Analog and Digital Communication Systems. ▪ Computer Programming
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Personal skills and competences

Language	<p>Able to carry out and publish academic research and other technical outputs in the following:</p> <p>Arabic (Mother tongue)</p> <p>English (Excellent)- TOEFL score (IBT) : 94</p>
Social skills and competences	<ul style="list-style-type: none"> • Good presentation & communication skills • Active team member and independent research.
Technical skills and competences	<ul style="list-style-type: none"> • Ability to work well under pressure. • Ability to work well with all levels of management and personal. • Patient and highly self-motivated. • Effective Teaching
Computer skills and competences	<ul style="list-style-type: none"> • MATLAB • C# Language • My SQL • LabView

Affiliations

2019 - Present	Postdoctoral Fellow at the College of Electronics and Information Engineering, Shenzhen University, China
2018 - 2019	Assistant Professor at Electrical Engineering Department, Faculty of Engineering, Assiut University, Egypt
Mars 2017 to Dec. 2017	Visiting researcher in Kyushu University, Fukuoka, Japan
2015 - 2018	PhD student in Electronics and Communication Engineering Egypt-Japan University of Science and Technology, Egypt
2014 - 2015	Teaching Assistant at Electrical Engineering Department, Faculty of Engineering, Assiut University, Egypt
2009 - 2014	Demonstrator at Electrical Engineering Department, Faculty of Engineering, Assiut University, Egypt
2016-2017	President of Student Union in Egypt-Japan University of Science and Technology
2007-Present	Registered Engineer at Egypt Engineers Syndicate, Assiut, EGY

References

Prof. Zhi Quan zquan@szu.edu.cn	Distinguished Professor, College of Electronics and Information Engineering, Shenzhen University, China
Prof. Mohammed Abo-Zahad mohammed.zahhad@ejust.edu.eg	Dean of School of Electronics, Communications & Computers, EJUST University, Egypt.
Prof. Maha Elsabrouty maha.elsabrouty@ejust.edu.eg	Electronics and Communications Department (ECE), EJUST University, Egypt
Prof. Osamu Muta muta@ait.kyushu-u.ac.jp	Professor, Kyushu University, Japan
Prof. Hiroshi Furukawa furuhiko@ait.kyushu-u.ac.jp	Professor, Kyushu University, Japan