

# CURRICULUM VITAE

**Emad Tammam, Ph.D.**

Assistant Professor

August, 2023



## PERSONAL INFORMATION

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- Name: EMAD TAMMAM ABDELHAMID ALI
- Date of birth: 16<sup>th</sup> March, 1978
- Gender: Male
- Marital status: Married (3 Children)
- Nationality: Egyptian
- Home address: El-Kara, Abou-Tisht, Qena, Egypt
- Work address: Electrical Engineering Dept., Faculty of Engineering, Minia University, Minia, Egypt
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## EDUCATION

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- February, 2013     **Ph.D.** in Electrical Engineering (Communications and Electronics),  
Egypt-Japan University of Science and Technology (E\_JUST)  
Thesis title: "Design and Optimization of Planar UWB Antennas".
- July, 2007     **M.Sc.** in Electrical Engineering (Communications and Electronics),  
Minia University  
Thesis title: "Performance of Subband Adaptive Antenna Arrays in Fading  
Environment with Interference".
- May, 2001     **B.Sc.** in Electrical Engineering (Electronics and Communications),  
Minia University  
Graduation Project Title: "Programmable Logic Controllers and its Applications"

## HONORS, SCHOLARSHIPS, AND RESEARCH GRANTS

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- 2001 Top B.Sc. graduated student with honors from Electrical Engineering Department, Faculty of Engineering, Minia University, Egypt
- 2010 - 2013 Three years scholarship from the Mission Sector of Egyptian Ministry of Higher Education to obtain the Ph.D. degree. One year travel to Japan was included.
- 2017 Research grant of 2000000 EGP from the Science and Technology Development Fund (STDF) for basic and applied research under the title "Radiofrequency Hyperthermia for Cancer Therapy".

## ACADEMIC EMPLOYMENT

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- 2013 - Present **Assistant Professor**, Electrical Engineering Dept., Minia University, Egypt.
- 2007 - 2013 **Teaching Assistant**, Electrical Engineering Dept., Minia University, Egypt.
- 2001 - 2007 **Demonstrator**, Electrical Engineering Dept., Minia University, Egypt.  
(30 months of military service was included throughout this period)

## SUPERVISION WORKS

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2022 - Present	M.Sc. thesis entitled: Design of an efficient antenna array for RF energy harvesting
2021 - Present	M.Sc. thesis entitled: "Design of massive MIMO system for 5G wireless communications".
2018 Finished	M.Sc. thesis entitled: "The Design and Performance Enhancement of Rectenna for Energy Harvesting from Ambient Radio Waves".
2018 Finished	M.Sc. thesis entitled: "Design of efficient and compact wireless power transfer system for charging electronic devices".
2015 Finished	M.Sc. thesis entitled: "Efficiency improvement of the high frequency rectifying circuit used in RF energy harvesting".
2014 Finished	M.Sc. thesis entitled: "About the behavior of paints for their radiofrequency wave protection and decay prevention".
2018	Graduation Project entitled: "Design and implementation of RF energy harvesting system".
2017	Graduation Project entitled: "Design of low SAR microstrip antenna for wireless

	communications".
2016	Graduation Project entitled: "Rectenna design for RF energy harvesting system".
2014	Graduation Project entitled: "Design and implementation of smart antenna system".
2009	Graduation Project entitled: "Design of Short range RADAR for distance measurement using microcontroller".

## PUBLICATIONS

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- **Emad T. Abdel-Hameed**, Nouredin M. Ibraheem, M. Moness, and H. H. El-Tamally, " Subband Adaptive Array for Faded Signals in Multipath Environment, " in *Proc. 24th National Radio Science Conference (NRSC2007)*, Ain Shams University, Cairo, Egypt, March 2007.
- **E. Tammam**, K. Yoshitomi, A. Allam, M. Ragab, R. Pokharel, and K. Yoshida, "Design and analysis of a compact size planar antenna for UWB applications," *European Conference on Antennas and Propagation (EuCAP2012)*, Czech Republic, March 2012.
- **E. Tammam**, L. Yang, A. Allam, M. Ragab, K. Yoshitomi, R. Pokharel, and K. Yoshida, "Design of a small size UWB antenna with band-rejection characteristics," 2012 *Japan-Egypt Conference on Electronics, Communications and Computers (JEC-ECC 2012)*, Alexandria, Egypt, March 2012.
- **E. Tammam**, L. Yang, K. Yoshitomi, A. Allam, M. Ragab, H. Kanaya, and K. Yoshida, "Design of a compact size UWB planar antenna with WiMAX band rejection," *IEICE Electronics Express (ELEX) Letters*, vol. 9, no. 16, pp. 1304-1309, August 2012.
- **E. Tammam**, K. Yoshitomi, A. Allam, M. Ragab, H. Kanaya, and K. Yoshida, "Miniaturization of a UWB antenna with dual band-notched at WLAN/WiMAX frequency bands," 2012 *IEEE International Conference on Electronics Design, Systems and Applications (ICEDSA 2012)*, Kuala Lumpur, Malaysia, November 2012.
- **E. Tammam**, K. Yoshitomi, A. Allam, M. El-Sayed, H. Kanaya, and K. Yoshida, "A highly miniaturized planar antenna with dual band-notched using two slot types for UWB wireless communications," 2012 *Asia-Pacific Microwave Conference (APMC2012)*, Kaohsiung, Taiwan, December 4-7, 2012.
- H. Yoshioka, L. Yang, **E. Tammam**, and K. Yoshitomi, "A highly compact dual-band WLAN/UWB monopole antenna," *IEICE Electronics Express (ELEX) Letters*, vol. 9, no. 3, pp. 160-164, Feb. 10, 2012.

- L. Yang, **E. Tammam**, K. Yoshitomi, S. Ijiguchi, H. Kanaya, K. Yoshida, A. Ishikawa, S. Fukagawa, N. Kodama, and A. Tahira, " CPW-fed slot antenna for UWB short-range impulse radar systems," *IEICE Electronics Express (ELEX) Letters*, vol. 9, no. 20, pp. 1604-1610, October 2012.
- A.M. Tony, **E. Tammam**, and M. Zakaria Abdel Wahhab, "Characterization of a manganese zinc ferrite powder prepared for radiofrequency absorption," *Minia Journal of Engineering and Technology (MJET)*, vol. 33, no.2, July 2014.
- Rewaa Maher, **Emad Tammam**, Ahmed I. Galal, and Hesham F. Hamed, " Design of A Broadband Planar Antenna for RF Energy Harvesting," in *Proc. International Conference on Electrical, Electronics, and Optimization Techniques (ICEEOT2016)*, pp. 1808-1810, India, 2016.
- Rewaa Maher, **Emad Tammam**, Ahmed I. Galal, and Hesham F. Hamed, "Study of the Intermodulation Effects on the Efficiency of the RF Rectifier Used for Energy Harvesting," in *Proc. 2017's International Japan-Africa Conference on Electronics, Communications, and Computers (JAC-ECC2017)*, pp. 73-76, Alexandria, Egypt, 2017.
- Mohamed A. El-Sawy, Hany A. Atallah, Adel B. Abdel-Rahman, **Emad Tammam**, and Hesham F. Hamed, "Compact Design for Wireless Power Transmission Using U-Slot Resonators with Folded Coupled Lines," in *Proc. 35<sup>th</sup> National Radio Science Conference (NRSC2018)*, pp. 77-84, Cairo, Egypt, March 27 - 29, 2018.
- A. Sedeek, **E. Tammam** and E. Hasaneen, "High Efficiency 2.45 GHz Low Power Hybrid Junction Rectifier for RF Energy Harvesting," 2018 International Japan-Africa Conference on Electronics, Communications and Computations (JAC-ECC), Alexandria, Egypt, 2018, pp. 147-150.
- M. M. Yassin, **E. Tammam**, A. A. Ibrahim, A. M. Said and A. I. Galal, "A Dual Ring Interstitial Monopole Antenna with Spherical Heating Pattern for Hepatic Tumor Microwave Ablation," 2019 36th National Radio Science Conference (NRSC), Port Said, Egypt, 2019, pp. 425-430.
- M. M. Yassin, **E. Tammam**, A. A. Ibrahim, A. M. Said and A. I. Galal, "Dielectric-loaded 5.8 GHz Interstitial Monopole Antenna for Spherically-shaped Hepatic Tumors Ablation," 2019 Photonics & Electromagnetics Research Symposium - Spring (PIERS-Spring), Rome, Italy, 2019, pp. 2529-2533.
- A. Sedeek, **E. Tammam** and E. Hasaneen, "Design of an efficient 2.45 GHz RF rectifier for energy harvesting from low RF power density environment," 2020 International Conference on Innovative Trends in Communication and Computer Engineering (ITCE), Aswan, Egypt, 2020, pp. 268-271.
- A. Kamal, H. Karam, **E. Tammam**, A. A. Ibrahim, A. M. Said, M. M. Yassin and A. I. Galal, "On Study of Interstitial Two Slots Antenna with floating sleeve for Microwave Hepatic Tumor Ablation," 2020 International Conference on Innovative Trends in Communication and Computer Engineering (ITCE), Aswan, Egypt, 2020, pp. 326-329.

- **E. Tammam**, A. M. Said, A. A. Ibrahim and A. I. A. Galal, "About the Interstitial Microwave Cancer Ablation: Principles, Advantages and Challenges," in IEEE Access, vol. 8, pp. 49685-49694, 2020.
- Ahmed A. Ibrahim, IEEE, Hesham. A. Mohamed, Mahmoud A. Abdelghany, **Emad Tammam**, " Flexible and frequency reconfigurable CPW-fed monopole antenna with frequency selective surface for IoT applications," *Scientific Reports*, 13:8409, 2023.
- Ahmed A. Ibrahim, IEEE, Hesham. A. Mohamed, Mahmoud A. Abdelghany, **Emad Tammam**, "Compact Sub-6 GHz 4-Port Flexible MIMO Antenna for 5G Applications," *submitted*, 2023.
- Ashraf M. AbdelHakeem, **Emad Tammam**, Ashraf M. Said, Ahmed A. Ibrahim, and Ahmed I. Galal, "Experimental Study of an Enhanced Water-Cooling Technique for Interstitial Microwave Cancer Ablation System," *Submitted*, 2023.

## TEACHING EXPERIENCE

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*The following courses were taught by me in Minia University, Al-Azhar University, South Valley University, Nahda University, and the Minia's Higher Institute of Engineering and Technology*

- Microwave Engineering.
- Electromagnetic Fields Engineering.
- Microwave Devices & Systems (Postgraduate).
- Antenna Theory and Design.
- Advanced Antenna Design (Postgraduate) .
- Analog Communication Theory.
- Digital Communication Systems.
- Optical Fiber Communications.
- Electronics.
- Electronic Circuits Design.
- Digital and Logic Circuits Design.
- Data Transmission.
- Acoustics Engineering.
- Computer Networks.

## RESEARCH INTEREST

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**These topics are the main research interest:**

- Design of antenna for biomedical applications.
- RF energy harvesting.
- UWB Antennas for different wireless communication applications.
- Miniaturization of antenna.
- Antenna arrays and massive MIMO systems.

## **UNIVERSITY SERVICES**

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- Participation in updating the curriculum of the undergraduate level (B.Sc.) of the Electrical Engineering Dept., Faculty of Engineering, Minia University.
- Has been engaged in the preparation of the Course Specifications and Courses Reports files of undergraduate levels in Communications and Computers Engineering Department, Faculty of Engineering, Nahda University.
- The coordinator of the teaching and learning academic standard in the Communications and Computers Engineering Department, Faculty of Engineering, Nahda University.