

Sarmad Nozad Mahmood, PhD



Contact Information

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Objective

As an experienced Electronic Engineering PhD with specialized expertise in antenna design, wireless communication, and control systems, I am eager to contribute to pioneering research within esteemed research centers. My aim is to leverage my comprehensive background in engineering and significant publication record to drive forward the development of innovative technologies and solutions. I am committed to collaborating with multidisciplinary teams to tackle complex challenges, enhance the state of the art in telecommunications and control systems, and make meaningful contributions to scientific knowledge and technological advancement.

Education

- PhD in Electronic Engineering, Universiti Putra Malaysia (UPM), Malaysia, December 2022.
- MSc in Electronic and Communication Engineering, Çankaya University, Ankara, Turkey, June 2014.
- BSc in Electronic and Control Engineering Technology, Northern Technical University, Kirkuk, Iraq, July 2008.

Research Interests

- Ultra-Wideband (UWB) antenna, wearable antennas, antenna applications
- Wireless body area networks, 5G antenna applications.
- Control system design, IoT and AI technologies, digital communications
- Discrete event systems, system automations

Teaching Interests

Analog communication, digital communication, mobile communication, antenna and propagation, supervisory control for discrete event systems, control of power systems, robotic systems, System automation, digital controllers, control system design, linear system theory, Electronic circuits, electronic devices, control engineering fundamentals, power electronics

Programming Skills

C++, MATLAB, CST Microwave Studio Suite, Visual Basic, Microcontrollers and Arduino programming (IDE++), Proteus Software.

Languages

English (Excellent), Arabic (Excellent), Turkmen (Excellent), Turkish (Good)

Work Experience

- Teaching Staff, Al-KITAB University College, 2015–2023.
- Lecturer, College of Technology Kirkuk, 2015–2016.
- Transmission Engineer, Asia Cell Telecommunication Company, Kirkuk, 2009.

English Language Certifications

- IELTS (2020: 7, 2018: 6.5).
- TOEFL (2017: 550, 2012: 500).

Professional Affiliations

- IEEE Member, 2017–2024
- Department Coordinator, Computer Engineering Department, Al-Kitab University, 2017.
- Author for the United Nations on world small hydro power stations, 2019 & 2022.

Publications and Conferences

Authored and co-authored numerous journal articles and conference papers in the fields of antenna design, wireless communications, IoT, and renewable energy systems.

Journals:

- [1]. Swash S. Muhammed, Sarmad Nozad Mahmood, and Aydin. Akan; "Cyclostationary Features Based Spectrum Sensing For Cognitive Radio" *International Journal of Scientific and Engineering Research*, Vol 5, Issue 4, pp. 203–206, April, 2014.
- [2]. Sarmad Nozad Mahmood, Forat Falih Hasan: "Design of Weather Monitoring System Using Arduino Based Database Implementation" *Journal of Multidisciplinary Engineering Science and Technology (JMEST)*, Vol. 4 Issue 4, April - 2017.
- [3]. Sarmad Nozad Mahmood., Ishak, A. J., & Hussain, S. T. (2019). GSM based gas leak monitoring system. *Periodicals of Engineering and Natural Sciences (PEN)*, 7(2), 670-678.
- [4]. Ishak, A. J., & Sarmad Nozad Mahmood. (2019). Eye in hand robot arm based automated object grasping system. *Periodicals of Engineering and Natural Sciences (PEN)*, 7(2), 555-566.
- [5]. Deeman M. Najat, Sarmad Nozad Mahmood, Omar Faruk Refaat, Sameer Algburi, and Sinan Kivrak; "PV Solar Charger Optimization Based Maximum Power Point With Real Time Tracking Information" *Sustainable Resources Management Journal*, Vol 3, Issue 2, pp: 88 - 105, 2018.
- [6]. Sarmad Nozad Mahmood: "Water Flow Control System Based on "Run-Off-River" Hybrid Power Station" *Sustainable Resources Management Journal*, Vol 3, Issue 2, pp: 1 - 24, 2018.
- [7]. Alani, S., Sarmad Nozad Mahmood., Attaallah, S. Z., Mhmood, H. S., Khudhur, Z. A., & Dhannoon, A. A. IoT based implemented comparison analysis of two well-known network platforms for smart home automation. *Int J Elec & Comp Eng ISSN*, 2088(8708), 8708.
- [8]. Sarmad Nozad Mahmood; "GSM Interaction Based Real Time Climate Change Monitoring Technique" *Kirkuk University Journal /Scientific Studies (KUJSS)*, Vol 13, Issue 2, pp: 1 - 17, 2018.
- [9]. Abadal-Salam T. Hussain, Ahmed K. Abbas, Sarmad Nozad Mahmood: "ANTI-COLLISION SYSTEM FOR UNMANNED MOBILE ROBOT SYSTEM" *Sci.Int.(Lahore)*, Vol 30. Issue 2, pp: 333 - 337, 2018.
- [10]. Sarmad Nozad Mahmood: " Design of Smart Hybrid Micro Power System " *Asian Life Science Journal*, 2018.
- [11]. Fahad, A. M., Alani, S., Sarmad Nozad Mahmood., & Fahad, N. M. Ns2 based performance comparison study between dsr and aodv protocols. *Int. J. Adv. Trends Comput. Sci. Eng*, 8(1.4), S1.
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- [13]. Sarmad Nozad Mahmood, Asnor Juraiza Ishak, Alyani Ismail, Azura Che Soh, Sameer Alani. (2020). Recent Wearable Antenna Technologies: An Overview. *International Journal of Advanced Science and Technology*, 29(04), 5618 - 5631. Retrieved from <http://sersc.org/journals/index.php/IJAST/article/view/27050>.
- [14]. Ismaeel, A., Rafat, O., & Sarmad Nozad Mahmood. (2020). IoT Technology Based Smart Systems Control Methodology Using Net Pi Network Platform.
- [15]. Sarmad Nozad Mahmood., Ishak, A. J., Saeidi, T., Alsariera, H., Alani, S., Ismail, A., & Soh, A. C. (2020). Recent Advances in Wearable Antenna Technologies: a Review. *Progress In Electromagnetics Research B*, 89, 1-27.
- [16]. Saeidi, T., Ismail, I., Sarmad Nozad Mahmood., Alani, S., & Alhawari, A. R. (2020). Microwave imaging of voids in oil palm trunk applying UWB antenna and robust time-reversal algorithm. *Journal of Sensors*, 2020.

- [17]. Alani, S., Zakaria, Z., Saeidi, T., Ahmad, A., Alsariera, H., Al-Heety, O. S., & Sarmad Nozad Mahmood. (2021). Electronic bandgap miniaturized UWB antenna for near-field microwave investigation of skin. *AIP Advances*, 11(3), 035228.
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- [20]. Al-Falahi, H. A., Smit, D. A., Rashid, S. A., Sarmad Nozad Mahmood., & Alani, S. (2022). The effects of material's features and feeding mechanism on high-gain antenna construction. *Bulletin of Electrical Engineering and Informatics*, 11(4), 2071-2078.
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Conferences:

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- [4]. E. Solomin, O. J. Abdalghar and S. N. Mahmood, "Power Flow Meter Based Excess Energy Supervision Strategy," 2020 International Conference on Industrial Engineering, Applications and Manufacturing (ICIEAM), 2020, pp. 1-6, doi: 10.1109/ICIEAM48468.2020.9111983.
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- [7]. T. Saeidi, Sarmad Nozad Mahmood, S. Alani, S. M. Ali, I. Ismail and A. R. H. Alhawari, "Sub-6G Metamaterial-Based Flexible Wearable UWB Antenna for IoT and WBAN," 2020 IEEE Intl Conf on Dependable, Autonomic and Secure Computing, Intl Conf on Pervasive Intelligence and Computing, Intl Conf on Cloud and Big Data Computing, Intl Conf on Cyber Science and Technology Congress (DASC/PiCom/CBDCCom/CyberSciTech), 2020, pp. 7-13, doi: 10.1109/DASC-PiCom-CBDCCom-CyberSciTech49142.2020.00018.
- [8]. Alani, S., Zakaria, Z., Saiedi, T., Ahmad, A., Sarmad Nozad Mahmood., Saad, M. A., ... & Ma'ath Abdulla, A. (2020, October). A Review on UWB Antenna Sensor for Wireless Body Area Networks. In 2020 4th International Symposium on Multidisciplinary Studies and Innovative Technologies (ISMSIT) (pp. 1-10). IEEE.
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- Mobile AD HOC Network. In 2021 3rd International Congress on Human-Computer Interaction, Optimization and Robotic Applications (HORA) (pp. 1-5). IEEE.
- [11]. Aziz, D. A., Asgarnezhad, R., & Sarmad Nozad Mahmood. (2021, October). The Recent Advances In IoT Based Smart Plant Irrigation Systems: A Brief Review. In 2021 5th International Symposium on Multidisciplinary Studies and Innovative Technologies (ISMSIT) (pp. 97-104). IEEE.
- [12]. Sarmad Nozad Mahmood, T. Saeidi, A. R. Ismael and S. Alani, "Study of Substrate-Materials Impact on Compact Antenna Performance," 2022 International Symposium on Multidisciplinary Studies and Innovative Technologies (ISMSIT), 2022, pp. 679-686, doi: 10.1109/ISMSIT56059.2022.9932836.
- [13]. Mahmood, S. N., Mohammed, S. S., Ismaeel, A. G., Clarke, H. G., Mahmood, I. N., Aziz, D. A., & Alani, S. (2023, June). Improved Malaria Cells Detection Using Deep Convolutional Neural Network. In 2023 5th International Congress on Human-Computer Interaction, Optimization and Robotic Applications (HORA) (pp. 1-4). IEEE.
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- [18]. Al-Dolaimy, F., Alkhafaji, M. A., Abbas, F. H., Hassan, M. H., Alkhayyat, A. H., & Mahmood, S. N. (2023, July). A collaborative routing protocol for the internet of drone things in the VANET environment. In 2023 Al-Sadiq International Conference on Communication and Information Technology (AICCIT) (pp. 7-12). IEEE.
- [19]. Alani, S., Qader, A. A., Al-Tahai, M., Mansour, H. S., AL-Hameed, M. R., & Mahmood, S. N. (2023, April). Trust Management Scheme-Based Intelligent Communication for UAV-Assisted VANETs. In International Conference on Frontiers of Intelligent Computing: Theory and Applications (pp. 419-432). Singapore: Springer Nature Singapore.
- [20]. Alsalamy, A., Al-Tahai, M., Qader, A. A., Kadeem, S. R. A., Alani, S., & Mahmood, S. N. (2023, April). Intelligent Data Transmission Through Stability-Oriented Multi-agent Clustering in VANETs. In International Conference on Frontiers of Intelligent Computing: Theory and Applications (pp. 391-404). Singapore: Springer Nature Singapore.
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Book Chapters:

- [1]. Saeidi, T., Sarmad Nozad Mahmood., Ali, S. M., Alani, S., Rehman, M., & Alhawari, A. R. (2020). Equivalent Circuit (EC) Approximation of Miniaturized Elliptical UWB Antenna for Imaging of Wood. In *Intelligent Computing and Innovation on Data Science* (pp. 447-455). Springer, Singapore.
- [2]. Ali, S. M., Jeoti, V., Saeidi, T., Sarmad Nozad Mahmood., Abidin, Z. Z., & Rehman, M. (2020). Design of Dual-Band Wearable Crescent-Shaped Button Antenna for WLAN Applications. In *Intelligent Computing and Innovation on Data Science* (pp. 457-464). Springer, Singapore.

Scholarly Contributions

- **Publications:** Authored and co-authored over 55 papers in Scopus and Clarivate indexed journals, contributing significantly to the field of antenna design, wireless communications, IoT, and renewable energy systems.
- **H-index:** Achieved an H-index of 12 in Scopus, demonstrating the impact and relevance of my research within the scientific community.