

Eslam Hasan

Personal Information

Affiliation: Ph.D. Candidate, Computer Science Department, Tennessee Tech University, TN, USA
Email: ebhasan42@tntech.edu
Phone: (931) 713-0510
Address: 850 W Broad St, Cookeville, TN, 38501
Website: eslamhasan.github.io

Short Biography

Eslam Hasan is a PhD candidate in the Computer Science Department, Faculty of Engineering, Tennessee Tech University, Cookeville, TN, USA. He is an experienced academic with 7 years of research and teaching experience in prestigious institutes, including the American University in Cairo, the Modern Academy for Engineering and Technology, and Mansoura University. Mr. Hasan has a research portfolio of 4 journal papers, 5 conference papers, and one magazine. His research interests include AI, security, and 5G+ wireless networks.

Mr. Hasan taught various undergraduate courses and presented at leading conferences worldwide, such as the IEEE Vehicular Technology Conference (VTC). He is an IEEE graduate member and a reviewer for the IET Communication journal, IEEE VTC, and IEEE VTS Asia Pacific Wireless Communications Symposium (APWCS). He served as a session chair for three sessions in IEEE VTC Fall 2024. He serves regularly in conference organizations and TPC membership for IEEE flagship conferences such as the IEEE Virtual Conference on Communications (VCC).

Education

PhD in Computer Science 2022-2025

Tennessee Tech University, Computer Science Department, Cookeville, TN, USA.

Supervisor: Assoc. Prof. Muhammad Ismail, IEEE Senior Member, Director of Cybersecurity Education, Research and Outreach Center (CEROC).

M.Sc. in Electronics and Communications Engineering 2013-2020

Mansoura University, Electronics and Communications Department, Mansoura, Egypt.

Supervisors: Prof. Sherif Kishk, Assistant Minister of Higher Education and Scientific Research for Smart Governance.

Thesis: Analysis Of Wireless Sensor Network Performance Using Computation Offloading.

Diploma in Information Technology 2014-2015

Information Technology Institute,

Mobile and Open Source Applications Developer Program, Cairo, Egypt.

Supervisor: Eng. Mohammed Gabr, Software Engineering Manager at Hungerstation.

Graduation project: Android Application for Hotel Booking.

B.Sc. in Electronics and Communications Engineering 2008-2013

Mansoura University, Electronics and Communications Department, Mansoura, Egypt.

Graduation project: Android Application for Mansoura University Students Information Systems.

Academic Experience

Tennessee Tech University Cookeville, TN, USA
Graduate Research Assistant 2022-present

- Work on an NSF collaborative research project between USA and Japan “Softwarization of Intelligence for Efficient 6G Mobile Networks” under NSF award number 2210252.

American University in Cairo Cairo, Egypt
Graduate Teaching Assistant 2021-2022

- DSCI 2411 - Data Visualization.

Modern Academy for Engineering and Technology

Lecturer

- CMP111–Logic Circuit Design.
- ELC211–Signal analysis.
- ELC215–Analog Communication Systems.
- ELC321–Digital Communication Systems.

Cairo, Egypt
2020-2022**Modern Academy for Engineering and Technology**

Graduate Teaching Assistant

- CMP111–Logic Circuit Design.
- ELC211–Signal analysis.
- ELC215–Analog Communication Systems.
- ELC321–Digital Communication Systems.

Cairo, Egypt
2015-2020**Industry Experience****700Apps**

Scrum Master Intern

- Leading daily stand-up meetings, reviews, demos, etc.
- Coordinated between developers, product owners, and stakeholders.
- Promoting Agile best practices and Managed sprint backlogs.

Mansoura, Egypt
Mar 2015 – Jun 2015**Ogra Software**

System Administrator

- Installing and managing a VOIP communication server using Asterisk.
- Installing and managing Odoo ERP system for CRM, HRM, etc.
- Installing, upgrading, and monitoring software, hardware, and network.
- Managing data backup and recovery processes.

Cairo, Egypt
Oct 2013 – Jun 2014**One Tech**

Android Developer (part-time)

- Developing an android application for real estate company.

Cairo, Egypt
Nov 2013 – Mar 2014**Alkan CIT**

Network Engineer Intern

- Providing maintenance for BTS/BSC sites (indoor & outdoor).

Cairo, Egypt
Jul 2012 – Sep 2012**Honors**

- **PhD Scholarship**
Computer Science, Tennessee Tech University, Cookeville, TN, USA.
- **Professional Training Scholarship**
Information Technology Institute, Cairo, Egypt.

2022-2025

2014-2015

Publications**Journals**

1. E. Mahalal, **E. Hasan**, M. Ismail, Z.-Y. Wu, M. M. Fouda, Z. M. Fadlullah, and N. Kato, “GAN-based Artificial Noise Generation Against Eavesdropping In Dynamic Indoor LiFi Networks,” **Under Review** in IEEE Transactions on Wireless Communications.
2. **E. Hasan**, E. Mahalal, M. Ismail, Z.-Y. Wu, M. M. Fouda, and N. Kato, “mmWave and Terahertz Indoor Channel Prediction under Data Drift in Real-world Scenarios,” **Under Review** in IEEE Transactions on Cognitive Communications and Networking.
3. **Eslam B. Ali**, Sherif Kishk, Ehab H. Abdelhay, “Multi-device Multi-task Computation Offloading in Device to Device Communication”, *Wireless Pers Commun* **123**, 1883–1896 (2022).
<https://doi.org/10.1007/s11277-021-09219-z>
4. **Eslam B. Ali**, Sherif Kishk, Ehab H. Abdelhay, “Multidimensional auction for task allocation using computation offloading in fifth generation networks”, *Future Generation Computer Systems*, Volume 108, 2020, Pages 717-725, ISSN 0167-739X, <https://doi.org/10.1016/j.future.2020.02.021>.

Magazines

1. **E. Hasan**, E. Mahalal, M. Ismail, Z.-Y. Wu, M. M. Fouda, and N. Kato, "Towards Robust Channel Prediction in 6G Networks: Mitigating the concept drift using ISAC," **Under Review** in IEEE Wireless Communications.

Conferences

1. **E. Hasan**, E. Mahalal, M. Ismail, Z.-Y. Wu, M. M. Fouda, and N. Kato, "Sensing-aided Terahertz Channel Prediction: A Robust Deep Learning Approach Against Concept Drift," **Under Review** in 2025 IEEE 60th International Conference on Communication (ICC), 2025.
2. E. Mahalal, **E. Hasan**, M. Ismail, Z.-Y. Wu, M. M. Fouda, and Z. M. Fadlullah, "Deep Learning-based Physical Layer Authentication Against Impersonation Attacks in LiFi Networks," **Under Review** in 2025 IEEE 60th International Conference on Communication (ICC), 2025.
3. **E. Hasan**, E. Mahalal, M. Ismail, Z.-Y. Wu, M. M. Fouda, and Z. M. Fadlullah, "Communication-aided Terahertz Sensing: A Novel Indoor People Counting System Via Deep Learning," **Accepted** in 2024 IEEE 2nd Virtual Conference on Communications (VCC), 2024.
4. **E. Hasan**, E. Mahalal, M. Ismail, Z.-Y. Wu, M. M. Fouda, and N. Kato, "Occupancy-level-aware Indoor Terahertz Channel Prediction: A Robust Deep Learning Approach," **Accepted** in 2024 IEEE 100th Vehicular Technology Conference (VTC2024-Fall), 2024.
5. **E. Hasan**, E. Mahalal, M. Ismail, Z.-Y. Wu, M. M. Fouda, T. Koketsu Rodrigues, and N. Kato, "Robust deep learning-based indoor mmwave channel prediction under concept drift," in 2023 IEEE 98th Vehicular Technology Conference (VTC2023-Fall), 2023, pp. 1–5.

Supervision

-
- | | |
|--|--|
| • <u>Undergraduate Student,</u> | Fall 2022-Spring 2023 |
| Calvin Guzman: | 5G+ network simulator, Department of Computer Science, Tennessee Tech University, TN, USA. |
| • <u>Undergraduate Student,</u> | Spring 2023 |
| Minh-nghi Vu: | 5G+ network simulator, Department of Computer Science, Tennessee Tech University, TN, USA. |
| • <u>Undergraduate Student,</u> | 2023-2024 |
| Matthew Burst: | 5G+ network simulator, Department of Computer Science, Tennessee Tech University, TN, USA. |

Services

Session Chair

- Privacy and Security I, IEEE VTC2024-Fall, Washington DC, USA, October 2024.
- Radio Access Technology II, IEEE VTC2024-Fall, Washington DC, USA, October 2024.
- Radio Access Technology III, IEEE VTC2024-Fall, Washington DC, USA, October 2024.

Technical Program Committee (TPC) member

- IEEE Virtual Conference on Communications (VCC).

Reviewer

- **Journals**
 - IET Communication.
- **Conferences**
 - IEEE Vehicular Technology Conference (VTC).
 - IEEE VTS Asia Pacific Wireless Communications Symposium (APWCS).

Conference Presentations

-
- | | |
|--|-----------|
| • Occupancy-level-aware Indoor Terahertz Channel Prediction: A Robust DL Approach, | Oct. 2024 |
| IEEE 100th Vehicular Technology Conference, Washington DC, USA. | |

- Robust Deep Learning-based Indoor mmwave Channel Prediction under Concept Drift, IEEE 98th Vehicular Technology Conference, Hong Kong. Oct. 2023

Professional Development

-
- VALIANT Research Community “AI Summer School”, August 12-15, 2024
Vanderbilt University, Nashville, TN, USA.
 - Center for Innovation in Teaching & Learning “Teaching with AI”, June-August, 2024
Tennessee Tech University, Cookeville, TN, USA.
 - Center for Innovation in Teaching & Learning, “Gamification” April 9, 2024
Tennessee Tech University, Cookeville, TN, USA.
 - IEEE ComSoc School Series “Next Generation Cloud Communications”, September 21-23, 2023
Georgia Tech Research Institute, Atlanta, GA, USA.

Campus Activities

-
- **Global Ambassadors,** 2024 - present
Center for Global Experiences, Tennessee Tech University.
 - **STEM Volunteer,** Sep. 14, 2024
STEMlympics Safari Saturday, Oakley STEM Center, Tennessee Tech University.
 - **Council Representative,** 2022-2023
House Borg, Computer Science Department, Tennessee Tech University.

Professional Membership

-
- IEEE Vehicular Technology Society Member. 2024
 - IEEE Graduate Student Member. 2023
 - IEEE Communications Society Member. 2023
 - IEEE Young Professionals Member. 2023