

## USW TRAVEL AWARD WINNER 2026 RAMADHAN MOHAMED RAJAB



**In September 2026, I travelled to Bucharest, Romania, to present my peer-reviewed paper at the 2nd IEEE International Conference on Cybersecurity and AI-Based Systems (Cyber-AI 2026), where the paper also received the Best Paper Award.**

Cyber-AI 2026 ran over four days at the Romanian-American University, hosted by its School of Computer Science for Business Management under the IEEE Romania Section. It brought together researchers and practitioners from academia and industry across many countries.

The programme centered on two themes: how AI is changing the way we defend systems, and how AI systems themselves can be secured against attack. The keynotes and technical sessions were very insightful and covered current innovations including:

- AI-driven threat and intrusion detection
- Securing machine-learning models against adversarial manipulation
- Privacy-preserving and federated learning
- Blockchain for trust and data integrity
- Governance and responsible deployment of AI in security settings

Several sessions connected directly to my own work on Internet of Medical Things (IoMT) security, and the discussions gave me useful ideas for the next stage of my PhD research.

Three talks stood out for me. The first was a keynote from Microsoft, giving an industry view of security and AI. The second was by a cybersecurity policy research analyst from the Romanian Government, who brought a national policy perspective to the technical themes of the conference. The third was by Dr Francesco Marcelo on malware analysis on smartphones, which was especially relevant to my work because smartphones act as gateways for medical devices in IoMT networks.

### **Summary and impact**

This trip allowed me to present my PhD research to an international IEEE audience and resulted in a Best Paper Award, a strong external endorsement of the work.

The main outcomes were:

- **Dissemination:** the paper was presented at an IEEE conference and will appear in the conference proceedings, increasing the visibility of IoMT security research from Wales.
- **Recognition:** the Best Paper Award is well reflected in the University of South Wales, my supervisory team and our supporting funder, the Worshipful Livery Company of Wales.

- **Learning:** the keynotes and sessions on AI-driven security, adversarial machine learning and federated learning gave me ideas I will bring into the next stage of my PhD.
- **Networking:** I made contacts with researchers at the Romanian-American University, other international delegates and industry at Microsoft, which could lead to future collaboration.

**I am very grateful to the Worshipful Livery Company of Wales for this Award which supported my attendance and participation at this significant International Conference. I can now plan to build on these connections, extend the framework from simulation towards real clinical settings, and share what I learned with fellow students and colleagues in the Department of Computing and Mathematics.**