

Jathun Gamage Isuru Amalinda

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Education, Honours and Certifications

Bachelor of Engineering in Electronics (First Class Honours)

Sheffield Hallam University, UK. 2014.

Professional Memberships & Summary

- Member of the Institute of Electrical and Electronics Engineers (MIEEE).
- Member of the Communications Society (ComSoc) of IEEE .
- Member of the IEEE Council on Electronic Design Automation.
- Member of the Industrial Applications Society (IAS) of IEEE.
- Full time Research Assistant at Sri Lanka Institute of Information Technology (SLIIT), Sri Lanka.
- External Resource Person at the University of Vocational Technology (UNIVOTEC), Sri Lanka.
- Full professional proficiency in English. High level of fluency and precision in both syntax and vocabulary.
- Driver & initiator with a demonstrated leadership ability.
- Myers-Briggs Type Indicator: ENTJ - Extraversion, Intuition, Thinking and Judging.

Research Interests

- Wireless Sensor Networks
- Wireless Communications
- Software Defined Radio

Publications

- M. Wijesundara, C. Tapparello, A. Gamage Y. Gokulan, L. Gittelsohn, T. Howard and W. Heinzelman, "Design of a Kinetic Energy Harvester for Elephant Mounted Wireless Sensor Nodes of JumboNet" IEEE Global Communications Conference (GLOBECOM), Washington, DC USA, 2016. (Scimago h-index of 65)
- A. Gamage and M. Wijesundara, "A Solution to the Elephant Human Conflict" Texas Instruments India Educators' Conference (TIIEC), Bangalore, India, 2014.

Work Experience

- Research Assistant at Sri Lanka Institute of Information Technology from March 2014 to present.
- Visiting Lecturer and External Supervisor for undergraduate students at the University of Vocational Technology (UNIVOTEC) from January 2016 to present. Lecturer in charge of Microprocessor Based Systems module from January 2016 August 2016.
- Instructor at Sri Lanka Institute of Information Technology from June 2014 to September 2014.
- Intern at the Airport & Aviation Services, Sri Lanka from October 2012 to January 2013.

Current Research

- **JumboNet** - This research is a collaborative effort between University of Rochester and Sri Lanka Institute of Information Technology. It explores the possibility of formulating a solution to the Human Elephant Conflict in Sri Lanka using Wireless Communication and Energy Harvesting techniques by deploying a self-powered network of nodes that traverse location information to central server. The goal is to deploy a cluster of nodes with prolonged lifetimes that require no human interventions and support Real Time Monitoring of Elephants. (web: JumboNet.lk).

Hardware Developments

- **Data Logger** - This wireless device was developed to log several million records of linear acceleration and gyroscopic acceleration of an elephant into an SD volume. It was also designed to continuously push data to a remote Amazon EC2 Instance via GSM at a rate of 40Hz. The project was developed with the intention of analysing the motion of an elephant to determine optimal kinetic energy harvesting techniques. This project is a subcomponent of JumboNet initiative.

- **GSM Based Tracker with Energy Harvesting** - Completed as a partial fulfillment of the final year undergraduate project, this device was developed to efficiently harvest from microwatts (μW) to milliwatts (mW) of energy generated from a variety of sources such as solar, thermoelectric, electromagnetic and vibration energy. The device utilised an ultra-low power MSP430 MCU and other electronics to regularly communicate location information via GSM to a remote server.
- **A Model Radar** - During the internship at the Airport and Aviation, I undertook a project to develop a circuit that demonstrates the basic concept of a radar using reflected ultrasonic waves. The project was presented at the annual national exhibition "Deyata Kirula", 2013. This project involved no programmable devices.

Professional Activities

- Panelist - Robotic Competition held by the University of Vocational Technology, Sri Lanka in 2014.
- Delegate - IEEE Sri Lanka Section Student/ Young Professional/ Women in Engineering Congress 2016.
- Member of the Sinhalese Sports Club Swimming House Committee from August 2011 to August 2012.
- Member of the Executive Committee of the SLIIT Toastmasters Club from June 2014 to June 2015.
- Founding member of the SLIIT Gavel Club and the Vice President Public Relations (VPPR) from January 2012 to December 2012.

Talks

- The Impact of ICT for Rural Development of Sri Lanka for the outbound students of Deakin University, Australia.

Extra Curricular Activities

- An avid swimmer for over 16 years and represented country in 2005. Introduced Swimming as a sport to the university and captained swim teams at both university and club level to victory on several occasions.
- An active Member of the Interact Club of ILAS and the treasurer of the Club for 2007/08 which organized events that focussed on lending a hand to the less-fortunate and other events to fund them.

Honors and Awards

- National Colors for representing the country, University Colors and School Colors on multiple occasions to recognise the outstanding performance in swimming.

I, Jathun Gamage Isuru Amalinda, hereby certify that above information given are true and correct as to the best of my knowledge as of 08th January 2017.