Pratheepan Gunaratnam, MSc in AE

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PROFILE Summary

- Competent Electronic Engineer with more than nine years of experience in teaching, designing, **embedded programming and implementing an electronic system for a** wide range of applications.
- An effective professional in conducting workshops based on Robotic Operating System (ROS)., Arduino , VHDL, Robotics and Matlab.
- Experienced in Supervising and providing research guidance to undergraduates.
- Excellent programming skills in various platforms and good in windows and Linux system/Network administration (RedHat/ Mageia).
- Great analytical, problem solving and decision-making skills with excellent oral and written English communication skills to take up any challenges and covert them to socio-economic advantages.
- Currently Following Artificial intelligence programme at Centennial College.

Research Interest

My research interest is centred around Hardware programming (Embedded and FPGA) to create a project that can bring solutions by relating Machine learning and Artificial intelligence. My Msc project is related to the Robotic operating system to control/mimic a 4 DOF robot arm based on hand gestures in the electric field(3D tracking Capacitive sensing).

Current research topics include:

- Adaptive learning platform based on ROS for a child with ADHD or Autism.
- Image processing based Electric Vehicle charging Robot ARM.
- Portable Vision aid device using Image processing.

Educational Qualification

2015- 2017 MSc in Applied Electronics University of Colombo, Sri Lanka (GPA of 3.98.)
 2011-2012 Bachelor of Engineering (Hons) in Electrical and Electronic Engineering
 Coventry University-UK (Auston Institute of Management Ceylon)
 2009-2011 Higher National Diploma in Electrical/Electronic Engineering
 International College of Business & Technology, Sri Lanka

Employment History

- 2022 2022 **Head Of Academics** British Institute of Engineering and Technology
- 2021 2022 **Visiting lecturer University of Technology Sydney** Sri Lankan Branch
 - o Conducting Introduction to Electrical and Electronic Engineering Module.
- 2021 2022 **Programme Manager Electrical & Electronics Engineering Cum Full-time Lecturer -** Skills College of Technology.
 - O Coordinated with the **University of De-Montfort- Leicester UK**, and Conducted their final year Modules (Advanced Embedded system and Advanced Digital Design) and supervised Final Year Individual Project.
- 2014 2021 **Lecturer Faculty of Engineering -** Auston Institute of Management

Conducted final year (University of the West of England –Bristol), higher diploma and foundation modules (Auston Institute). Module List,

University of the West of England –Bristol – Signal Processing and circuits,
 Control, Digital Design, Control Engineering, Digital Signal Processing and

- Project.
- University of De-Montfort- Leicester Advanced Digital Design, Electromagnetics, Applied Electronics and Project.
- Auston Institute Electrical Technology, Digital Electronics, Analog Electronics, Communication system, Instrumentation and control, Microcontrollers and Sensors, Advanced Engineering Mathematics, Engineering concept and English for academic purposes.

• 2013 – 2016 Visiting lecturer - Esoft college of engineering and technology

- Successfully delivered lectures and conducted laboratory practical sessions for assigned modules in accordance with the requirements specified in the course policies.
- Designed, conducted experiments; prepared worksheets and assisted students during lab sessions.
- o Instructed, evaluated and supervised students for undergraduate projects
- Reviewed and communicated: students' performance and progress with students and departmental heads in a timely manner.
- Prepared and updated the learning resources such as PowerPoint slides, study guides, assignments, examination questions, model answers and mark sheets.
- O Supervised student project work such as proposals, designs, implementation, testing and assignments.

• 2013 – 2014 Electronic Engineer - ZELCOM international Lanka (PTE) Ltd

- Programmed RFID reader with controls, IOT (Server to reader communication)
 and internet boot loader programming.
- o Designed and implemented RFID reader antenna based on requirements.
- Engaged with Linux system administration (RedHat), maintained server, database backup, and software installation.
- Interacted with the client, Garment factory, labour department, contractors, consultants, programmers, and software administrators throughout the projects.
- o Reviewed program structure and coordinated with other design disciplines
- Prepared presentations and animation for clients' meetings related to RFID system implementation, etc.

• 2010 – 2011 **Engineering Technologist** - I-E Technics

- O Completed training in power, R&D, Tool and antenna division.
- Contributed to the production of power guards, antenna boosters, converters and Protectors.
- o Gained experienced in troubleshooting the power guard (designed for television) and antenna boosters.
- Engaged with transformer winding from small scale to the big scale including the test and evaluation of the transformers.

Professional Development

- 2010 2014 Extra-low voltage system Institute of Engineers, Sri Lanka (IESL)
- 2010 2012 **Industrial training in Windows Network Administration** Turnkey IT training, Sri Lanka.
- 2010 2012 **Master Diploma in Multimedia -** CSC (CSC soft view), Sri Lanka.
- 2010 2007 Advanced Diploma in Hardware & Networking -CSC (CSC soft view).
- 2010 2012 **Diploma in Graphic Design -** Asian computer system & business college.
- 2010 2012 **Diploma in WEB Design & Development-** CSC (CSC soft view) Sri Lanka

Research Publication

Development of a Computer Numerical Control (CNC) drawing machine at present around the world 2013organized by IET young professionals' section, Sri Lanka.

3D Tracking Capacitance Based ROS controlled Robot Arm- Presented at 26th Annual Technical Conference of IET Srilanka Network 2019. ISSN: 2345-9558

Professional affiliations

Member, Institution of Engineering and Technology (IET)-England and Wales

Referees

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