Akshai M

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Work experience

FOSSEE, IIT Bombay   October 2016 - Present
Project Research Assistant
- OpenPLC Project, Revision of Hardware to a Modular Platform with support for IEC 61499.
- Eclipse SCADA Implementation for OpenPLC.

ICFOSS, Govt of Kerala   June 2016 – September 2016
Technical Coordinator, Open Source Hardware
- Project Coordinator – ExpEYES Community Development and Hardware revision
- Project Coordinator – LeSEG Project ,Sustainable Labs for Technical Institutions under APJ Abdul Kalam Technological University, Kerala
- Project Coordinator – 4DIAC Community Development Programme under fortiss · AnInstitut Technische Universität München.

Kerala Start Up Mission, Govt of Kerala   July 2015 – June 2016
Technology Innovation Fellow
- Fellow at Fab Lab Kerala , an initiative from Center for Bits and Atoms , MIT Boston and Govt. of Kerala.
- Development and deployment IoT labs and curriculum for colleges via IEDC's.
- Development of school curriculum for ExpEYES a portable science lab for schools and revision of ExpEYES _hardware for large scale manufacturing.
- Project Engineer - COWMesh – Community Owned Wireless Mesh, Aruvikkara.

ICFOSS, Govt of Kerala   May 2015 – July 2015
Intern , IoT Project Developer
- Mentored and delivered projects in the field of Internet of Things.
- Developed IoT curriculum for Engineering College Students
- Supported ExpEYES Training at IUAC, Nuclear Research Centre, New Delhi.
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All India Radio, Govt of India   2 Weeks May 2013
Training/Internship
- Part of a team of 12 who received training at 200KW transmitting station at AIR Alleppey.
- One week schedule at AIR Transmitter center. Learned the basics of industrial radio design models, High power Vaccum Tube based amplifiers, power compilation techniques and Coaxial cable designs.

Social Entrepreneurship (Technical)

MicroHOPE Foundation
Founder/Chairman   Dec 2013 - Present
- Development of MicroHOPE Board , an AVR Controller based prototyping board.
- Delivered over 10 workshops on OSHW and MicroHOPE under support from ICFOSS.
- Mentored projects using MicroHOPE Hardware.

Events and Activities (Technical)

Workshops/Talks:

- [Tentative] - Industrial Automation and Control using FLOSS and Open Source Hardware ,
  RMLL- LSM, Saint Etienne , France : July 01-07, 2017
- Workshop on "OSH enabled Physics" learning during Gathering for Open Science Hardware
  Santiago, Chile : March 22-25, 2017
- Talk on "OSH enabled IoT for the year 2016" ,FYPM Trivandrum , Jan 13-14 2017
- Workshop on MicroPython for MicroControllers SciPy India : Dec 10-11, 2016.
- Workshop on ExpEYES during GNOME Asia Summit Depok, Indonesia : May 07-09, 2015
- Workshop on MicroHOPE Controller Board for DIY Solutions during RMLL Montpellier
  France : July 05-11 2014.
- Delivered workshop on IoT/Connected Devices to 23 Engineering Colleges as a part of IoT
  FDP while working with Kerala Startup Mission.

Volunteering:

IEEE SB CE Kallooppara   Jan 2014 - Jan 2015
Chairman
- IEEE Member since December 2011
- Career development Policy for IEEE Student Members.
- Promotion of technology startups via IEDC.

IEEE Travancore Hub   Jan 2013 - Jan 2014
EC Coordinator
- Student in charge to support 23 Engineering colleges in South Kerala via IEEE LINK.
- Conducted workshops and volunteer training programs.

IEEE GHTC YPP – 2   June 2013
Member
- Development of solution to issues addressing Rural District Health Office Data
  Connectivity and eHealth Record system.
- Team developed a detailed engineering design specification that outlines the scope of the
  project, the technical and social problems as we see it, and the proposed solution
  approach.

ICFOSS   Jan 2014 – April 2015
Student Ambassador
- Support for IT@School Faculty Training
- Initiated "Open Source Hardware for Science" working group.

NASA Space Apps Challenge - Kochi   Apr 2014
Coordinator
- Mentored projects on Open Source Hardware.

Education

B.Tech Electronics and Communication Engg.   Sept 2011 — April 2015
College of Engineering Kalloopppara , CUSAT Affiliation
- Graduated with First Class

Higher Secondary   June 2009 — March 2011
Dr. Z.H.M Bharatiya Vidya Vihar
- Scored 77.8% marks in AISSCE.
- Scored 84.6% marks in AISSE.

Achievements

Certificate of Appreciation	- IEEE Kerala Section (2014)
Certificate of Appreciation	- NASA Space Apps (2014)
IEEE R10 (Asia-Pacific) Student Paper Contest 2013	- Awarded with third prize for my paper named "Svastha – Effective Solid Waste Management in Tiruvalla Muncipality"
IEEE PES - KSEB Paper Presentation Competition 2nd Prize 2013	- Kerala State Electricity Board and IEEE Power and Energy Society
IEEE SIGHT R10 (Asia-Pacific) HPC Winner 2013	- IEEE SIGHT

Publications

Book on Computer interfaced experiments using ExpEYES – Experiments for Young Engineers and Scientists, Malayalam - ICFOSS

AVR Assembly tools for concurrent programming in C – Open Hardware Track, Gnome Asia Summit Indonesia 2015
May 2015

SVASTHA: An effective solid waste management system for Thiruvalla Municipality in Android OS - Global Humanitarian Technology Conference: South Asia Satellite (GHTC-SAS), 2013 IEEE
August 23, 2013

Technical Skills

Languages:
Bash,Embedded C, Micro Python, LUA.

Markup Languages:
LaTeX, HTML

Tools:
Git.
CAD Tools
> KiCAD
> Kokopelli
> Antimony
> Inkscape

Machines (Prototyping)
> 3D Printer – Ultimaker 2 and Stratasys Dimension 1200es , Shopbot CNC Router , Rolland Modella , Rolland GX – 24 Vinyl Cutter , Trotec Laser Engraver/ Cutter , ALC Sand Blaster

Interests

- Electronics , DIY hardware hacking.
- Speed cubing , Percussion Instruments - Tabla

References

Dr. Jayasankar Prasad
Director, ICFOSS & CEO , Kerala Startup Mission
Email : jayasankar.prasad@gmail.com

Dr. Ajith Kumar B P
Scientist SH , Inter University Accelerator Centre
Email : ajith@iuac.res.in