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## **EDUCATION**

## **COCHIN UNIVERSITY (CUSAT)**

2015|B.TECH IN ELECTRONICS AND COMMN. ENGG

College of Engineering, Kallooppara First Class

## **HIGHER SECONDARY**

2011 | Dr. ZHM School, Chry AISSCE - 77.8/100 AISSE- 84.6/100

## LINKS

Github://akshaim LinkedIn://akshaim Twitter://@m\_akshai Quora://Akshai-M

## **PROJECTWORK**

#### **UNDERGRADUATE**

Embedded ARM, AVR RF Communication Hardware Prototyping Open Source toolchains Linux SBC's

## SKILLS

#### **PROGRAMMING**

Python • Shell • Embedded C Assembly • Micro-Python • C • LATEX Familiar:

LUA • C++ • Arduino

Tools:

Git, KiCAD, Inkscape, Antimony Ngspice

#### **MACHINES**

3D Printer – Reprap Prusa i3, Ultimaker-2, Stratasys Dimension 1200es • Shopbot CNC Router • Rolland Modella • Rolland GX – 24 • Trotec Speedy 100 Laser Engraver

#### **ENTREPRENEURSHIP**

Founder | MicroHOPE Foundation A not for profit organization promoting the use of Open Source Hardware for Learning Science.

## **INTERESTS**

Teaching, Electronics, DIY hardware hacking Speed cubing, Percussion Instruments - Tabla, Mridangam, Blogging, Science Fiction.

## **EXPERIENCE**

## ICFOSS | RESEARCH ASSISTANT (IOT)

Sep 2017 - Current | Trivandrum, India

• Team Lead - Development of IoT use cases in Governance for Govt of Kerala.

## IIT BOMBAY | RESEARCH ASSISTANT (FOSSEE PROJECT)

Oct 2016 - Sep 2017 | Mumbai, India

- OpenPLC Project, revision of hardware to a Modular Platform based on IEC 61499 enabling distributed control/system automation.
- Adopted FORTE (4DIAC Runtime) of Fortiss GmbH, Munich.
- Eclipse SCADA (Process visualization) and FBRT (HMI) implementation.

## ICFOSS | TECHNICAL COORDINATOR (OPEN SOURCE HARDWARE)

Jun 2016 – Sep 2016 | Trivandrum India

- ExpEYES Community Development and Hardware Revision.
- LeSEG Project Sustainable Labs based on Single Board Computer for Colleges.
- 4DIAC Community Development Project for MSME in Kerala.

# KERALA STARTUP MISSION | TECHNOLOGY INNOVATION FELLOW Jun 2016 - Sep 2016 | Trivandrum India

- Fellow at FabLab Kerala, initiative by CBA,MIT Boston and GoK.
- Engineered IoT Labs for Colleges/ visiting faculty.
- Project Engineer COWMesh Community Owned Wireless Mesh, Aruvikkara.

## **ACTIVITIES**

## Workshops/ Talks

- "Industrial Automation and Control using FLOSS and Open Source Hardware" RMLL- LSM, Saint Etienne, France: July 01-07, 2017.
- "OSH enabled Physics" **Gathering for Open Science Hardware** Santiago, Chile: March 22-25, 2017.
- "OSH enabled IoT for the year 2016" **FYPM 2016**: Jan 13 2017.
- Workshop on "MicroPython for MicroControllers" Scipy India 2016: Dec 10, 2016.
- Workshop on "ExpEYES" **Gnome Asia Summit** Indonesia: May 07, 2015.
- Workshop on "MicroHOPE" RMLL Montpellier France: July 05-11 2014.

#### **Publications**

- Book on Computer interfaced experiments using ExpEYES, Malayalam ICFOSS.
- SVASTHA: An effective solid waste management system for Thiruvalla Municipality in Android OS: GHTC-South Asia Satellite, 2013 IEEE.

#### Volunteering

- Chairman | IEEE SB CE Kallooppara: 2014-15.
- EC Coordinator | IEEE Travancore HUB (LINK): 2013-14.
- Coordinator | NASA Space Apps Challenge Kochi: 2014.

#### **Awards**

- 2014 Certificate of Appreciation | IEEE Kerala Section, NASA Space Apps.
- 2013 Third Prize | IEEE R10 (Asia-Pacific) Student Paper Contest 2013.
- 2013 Second Prize | IEEE PES KSEB Paper Presentation Competition.
- 2013 Winner | IEEE SIGHT R10 Humanitarian Page Contest.