

## Akshai M

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## EDUCATION

**COCHIN UNIVERSITY (CUSAT)**

2015 | B.TECH IN ELECTRONICS AND  
 COMMN. ENGG  
 College of Engineering, Kalloppara  
 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**

Embedded C • Shell • Python  
 Micro-Python • AVR Assembly • C •  $\LaTeX$   
 Familiar:  
 LUA • C++ • Arduino IDE  
 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

- IoT Lab works on UN Sustainable Development Goals.
- Developed ICFOSS LoRaWAN, Wireless IoT Network for Kerala State.

**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.

**KERALA STARTUP MISSION | TECHNOLOGY INNOVATION FELLOW**

Jul 2015 – Jun 2016 | Trivandrum India

- Fellow at FabLab Kerala, initiative by CBA, MIT Boston and GoK.
- Engineered IoT Labs and COWMesh - Community Owned Wireless Mesh - Aruvikkara.

## ACTIVITIES

## Workshops/ Talks

- "LoRa Demystified Workshop" GOSH, Shenzhen, China : Oct 12, 2018.
- "ULPLoRa Workshop" Open Hardware Summit, MIT Boston : Sept 27, 2018.
- "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 Kalloppara: 2014-15.
- EC Coordinator | IEEE Travancore HUB (LINK): 2013-14.
- Coordinator | NASA Space Apps Challenge Kochi : 2014.

## Awards

- **GOSH Fellow** Oct, 2018.
- **Ada Lovelace Fellowship** Sept, 2018.
- 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.