

Curriculum Vitae

Name: T Sai Ruthvik Website: https://tsairuthvik.github.io

Course: B.E. (Hons.), Electronics & Instrumentation Email: f2013489@goa.bits-pilani.ac.in

College: BITS Pilani Email: tsairuthvik@gmail.com

Links: LinkedIn, GitHub, Research Gate, YouTube Mobile: +91 8530125309

EDUCATION

BITS Pilani
B.E. (Hons.), Electronics & Instrumentation

• FIITJEE Junior College 12th Class Percentage: 89.1

• D.A.V Public School, Safilguda 10th Class c.g.p.a (10): 9.8

Goa, India Since 2013

Hyderabad, India 2011 – 2012

Hyderabad, India 2010

SKILLS

- ARDUINO, CADENCE, PSPICE, EAGLE, MATLAB, LabVIEW, openGLES
- Visual Studio(for Web and Mobile App Development), Adobe PhotoShop, Unity, Android Studio(Android App Development)

RELEVANT COURSES

- Technical Courses
 - 1. Software Development for Portable devices , Mobile Telecom Networks, Telecom Switching Systems and Networks, Data Communication Networks
 - 2. Signals and Systems, Control Systems
 - 3. Digital Design, Microprocessors and interfacing
 - 4. Electronic Devices, Microelectronics, Analog and Digital VLSI Design
 - 5. Electrical machines, Power electronics, Analog electronics
 - 6. Electronic Instruments Instrumentation Technology, Industrial Instrumentation

EXPERIENCE

• CS Department BITS Goa

Goa, India

Teaching Assistant

JAN 2017 - MAY 2017

- Taught the basics of Arduino Programming in the Software Development for Portable Devices course Taught by Dr. Sreejith V
- Assisted Dr. Sreejith with classroom instruction, exams, record keeping, and other miscellaneous projects

ISEP, France

Paris, France

Research Intern

JUL 2016 – DEC 2016

- Designed the Visible Light Communication(VLC) transmitter and Receiver in Eagle software and then printed it on PCB boards(github link)
- Tested the VLC transmitter and receiver boards on ARDUINO, Beagle bone black Platforms(github link)
- o Worked under Dr. Xun Zhang

PAPER PUBLICATIONS AND POSTERS

- Presented the paper titled "A Portable Real Time ECG Device for Arrhythmia detection using Raspberry Pi" in MOBIHEALTH Conference 2016 held in Milan, Italy.
- Paper titled "EEG-Based Classification of Bilingual Unspoken Speech Using ANN" accepted at the 39th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, Jeju Island, South Korea.
- Also presented a poster on "A Portable Real Time ECG Device for Arrhythmia detection using Raspberry Pi" in MOBIHEALTH conference 2016.
- Presented a poster on "EEG-Based Classification of Bilingual Unspoken Speech Using ANN" in AttLis International Conference 2017.

PROJECTS

- Game Object Control using Blink Data(video)
 - Created an Android App in which the rotation of the cube can be changed via a forcible blink. The App was developed using the Unity Editor and the blink data was received from the NeuroSky EEG Headset.
 - o Project was done remotely under the supervision of Dr. Veeky Baths.

• S-MART

- Project aims to integrate mobile based augmented reality app with indoor localization in a mart like Walmart.
- developed an Augmented Reality app with Object file(arrows) popping in the camera view for the direction between two NFC tags or QR codes, the NFC tags/QR codes contain the information about the location of respective products.
- O Dijkstra's algorithm was used for routing and re-routing has also been implemented in case the user goes the wrong path.
- Project was done under the supervision of Dr. Sreejith V
- Arduino Audio Input using Stethoscope
 - Successfully transferred real time audio data from the stethoscope to the mobile using Arduino YUN
 - o Implemented Temboo API for google Spreadsheets for data storage

- Wireless Heart Rate Sensor(github link)
 - Designed and assembled the hardware of the prototype(video)
 - o Established a wireless connection between Raspberry Pi and Mobile Device
 - Worked under Dr. Veeky Baths
- Smart Blind Navigation System(github link)
 - Designed a prototype for easy navigation of blind people, used ARDUINO with a vibration motor and a buzzer for alerting if any obstacle is close by.
 - o Worked under Dr. Sreejith V
- Bluetooth connection on Arduino
 - Successfully connected HC o6 Bluetooth Module on Arduino Uno to Computer
 - Established connection between two Arduinos with the help of HC o5 and HC
 o6 Bluetooth modules using Master and slave concept(github link)
 - Successfully connected HC o6 Bluetooth Module on Arduino UNO to mobile device
- Joint Mode Selection and Resource Allocation for Device-to-Device Communications(github link)
 - Developed low-complexity algorithms for power control, joint mode selection and channel assignment
 - o software used- MATLAB

ACHIEVEMENTS

- Came 3rd in EMBITION(an ARDUINO event) during QUARK 2016(the technical fest of BITS-Pilani Goa Campus)
- Was a member of the winning team in cricket during SPREE 2013(the sports fest of BITS-Pilani Goa Campus)
- Was a team member of the top ranked team(a team of 6 members) in Product and Brand Management course

POSITION OF RESPONSIBILITY

Volunteer
 Goa, India
 4th International AttLis Workshop
 MAR 2017

• Mentor at TIP(Technology Incubator Programme) Goa, India

Mentoring for the project "Wireless Heart Rate Sensor" since FEB 2016

• Member of Krisket Klub

Member of Kricket Klub Goa, India
The Cricket Team of BITS Goa since NOV 2013

EXTRA CURRICULAR ACTIVITIES

- Interests-Wireless Communication, Web Development, Photoshop, Developing Augmented Reality Apps and Games
- Hobbies-Playing Cricket, Tennis and Football