

Akhil Raj BARANWAL

f20160372@hyderabad.bits-pilani.ac.in

EDUCATION

- PURSUING Bachelor of Engineering in ELECTRONICS AND INSTRUMENTATION,
BITS Pilani, Hyderabad Campus
GPA: 7.55
- MAY 2015 AISCCE (CBSE 12th) in SCIENCE
Delhi Public School, Ghaziabad
SCORE: 93.8%
- MAY 2013 CICSE (ICSE 10th)
SCORE: 90.3%

RESEARCH EXPERIENCE

Fault Tolerant Routing Strategy Network on Chips

Worked under [DR. SOUMYA J](#) to propose a new algorithm for fault tolerance on network on chips focusing on a packet routing strategy for link faults between routers that can occur either during manufacturing or in-operation. The algorithm finds the shortest distance while distributing the load across the entire grid.

xBITS

Biomedical Instrumentation

Worked under [DR. SUMAN KAPUR](#) to create a medical device that can diagnose UTI (Urinary Tract Infections) upto 18 times quicker than laboratory methods. The device uses an array of TCS3200 colour sensors interfaced to an ATmega2560 for data acquisition.

WORK EXPERIENCE

- Summer 2018* Summer Intern at ADANI POWER MAHARASHTRA LIMITED, Tirora
Automation and Control Applications
Developed a Data Acquisition System for automating several industrial pumps spread across an area of more than 1600 acres. Project was based on Android, Arduino and GSM and was deployed within 25 days of initiation

RELEVANT COURSES

- IN PROGRESS: Computer Architecture, Operating Systems (Audited)
COMPLETED: Microprocessors and Interfacing, Digital Design,
Transducers and Measurement Technology

INDEPENDENT PROJECTS

- [VideoLanSync](#) Python utility to sync multiple devices through MQTT playing the same video on VLC
- [easyMouse](#) Gesture recognition based pointing device emulator
- [ardUPS](#) ATmega328 based power-supply controller with features like power-throttling and sleep scheduling for single board computer devices

INTERESTS AND ACTIVITIES

Digital Music Composition | [SoundCloud](#)
Writing short stories
[Blog](#)

LANGUAGES

HINDI: Mothertongue
ENGLISH: Fluent