Kedar **Mahale**

GRADUATE ENGINEER

Goa, India

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Summary

Hard-working, fast learner, team player, curious to learn. Graduate engineer from NIT Goa, working as embedded software developer at Saankhya Labs Pvt. Ltd. Skilled in C programming, worked in Linux, RTOS(freeRTOS) environments. Familiar with communication protocols IIC, SPI, UART.

Skills

Languages : C, C++, Python, Verilog.
Software : Xilinx Vitis, Cadence Virtuoso, Xilinx Vivado, MATLAB.
Version Control : Git

Experience

Saankhya Labs Pvt. Ltd. *Bengaluru, Karnataka*

Member of technical staff (Embedded Software Developer) *Oct. 2020 - Present*

- Design and development of Embedded Control Software for RF Front End for 5G RU.
  - PA control software involving modules for DAC, IO expander, GPIOs.
  - Design and development of device drivers for IO expander and GPIOs.
- Design and development of Embedded Software for RF Transceiver for 5G RU.
  - Enhancement of existing code and development of new features.
- Board bring up - Validation of peripherals like IIC, SPI, GPIOs.
- Worked on multiple projects and worked collaboratively with different teams like FPGA, HW, RF.

SIEMENS Energy Automation Ltd. *Verna, Goa*

Intern *May. 2018 - Jun. 2018*

- Quality control team, overview of the manufacturing process in PCB industry.

Education

National Institute of Technology Goa *Ponda, Goa*

Bachelor of Technology in Electronics and Communication Engineering, CGPA: 8.52/10 *Aug. 2016 - Jun. 2020*

Deepvihar Higher Secondary School *Headland-Sada, Goa*

Higher Secondary School Certificate, Percentage: 89.19% *Jun. 2014 - Apr. 2016*

St. Andrew's Institute *Vasco, Goa*

Secondary School Certificate, Percentage: 91.67% *Jun. 2008 - Apr. 2014*

Projects

Marine VHF Radio Receiver

B.Tech. Project *Aug. 2019 - Jun. 2020*

- 1.8 V, 180 nm radio receiver operating in the 156MHz - 174MHz (Marine VHF) band.
- Design of a low noise amplifier.
  -Gain of 14 dB at 165 MHz, integrated noise-figure of 4.0 dB(156-175MHz), 21 mW of power.
- Design of an active mixer with current injection.
  -Conversion gain of 14 dB, noise figure 27 dB at 15 MHz.
- Design of a ring oscillator with quadrature outputs tuned to 150 MHz.

Simulation of a 2-user CDMA system

MATLAB simulation *Mar. 2019 - Apr. 2019*

- Design and simulation of a 2-user 4-bit CDMA communication system.

Dynamic Range Radio frequency jammer

Mini project *Mar. 2018 - Apr. 2018*

- Design and implementation of radio frequency jammer in 89 - 105 MHz band.

Workshops

Internet of Things *NIT Goa*

2 Day workshop on an introduction to internet of things *Oct. 2016*

Accelorobitics *IIT Bombay*

2 Day workshop on an introduction to acclerometer and its working with arduino *Dec. 2018*

Volunteering

Serendipity Arts Festival, 2018 *Panjim-Goa*

Asia Students Photonics Conference, 2016 *MIT Manipal*

Hobbies and other interests

Photography, photo editing, writing, travelling, trekking, also interested in astronomy, maths, statistics and physics.

References

Dr. Nithin Kumar Y B *NIT-Goa*

HoD, Department of Electronics and Communication Engineering *nithin.shastri@nitgoa.ac.in*

Dr. Trilochan Panigrahi *NIT-Goa*

Associate Professor, Department of Electronics and Communication Engineering *tpanigrahi@nitgoa.ac.in*

Dr. Badri Narayan Subudhi *IIT-Jammu*

Assistant Professor, Department of Electrical Engineering *subudhi.badri@iitjammu.ac.in*