

Anuraj R.

*M.Sc.(Tech.) Space Robotics and
Automation
M.Sc. Product Management(On Leave)*

anurajrp.io/about
[in](#) anurajrp
[Twitter](#) anurajenp
[GitHub](#) anura-j-rp



*An Engineer with around 15 years of experience in building hardware and software for
Automotive, Space, Consumer Electronics and Telecom Sectors.*

Experience

- Jan-2024– **Senior Software Consultant, Unikie Oy**, Finland
Present Consulting different clients for their software needs.
- Jun-2020– **SoC Software Engineer, Nokia via Unikie Oy**, Finland
- Dec-2023 Writing Embedded real-time and non real-time software for Nokia 5G mMIMO SoC project. Work involved SoC IP hardware bring-up, setting up debugger, performance testing and tuning of SoC IPs on emulators, simulators and engineering samples.
- Nov-2015– **Embedded Software Engineer, TactoTek Inc.**, Oulu, Finland
- May-2020 Developed Embedded Software for Injection Molded Structural Electronics(IMSE) products.
- Apr,2014– **Robotics Engineer, Probot Ltd.**, Oulu, Finland
- Jun,2015 Developed Embedded Software for different robots. In addition, I wrote higher level programs in Python to interface with embedded-systems and simulator models of robots. I was also involved in designing electronics and printed circuit boards.
- Jan-Apr, 2011 **Sr. Project Assistant, Bharti School of Communication Tech. and Management, IIT-Delhi**, New-Delhi, India
Involved in a wireless sensor networks project for pollution monitoring. Built a server which would collect data from the various sensors in the network.
The other responsibilities included overseeing some of the product purchases for the project.
- Jul-Dec,2010 **Project Assistant, Bharti School of Communication Tech. and Management, IIT-Delhi**, New-Delhi, India
Built a light weight GPS tracking system for small endangered turtle species in northern India.

Education

- Master of Science in Product Management(On Leave), University of Oulu, Finland**
- Master of Science(Technology), Aalto University, Finland**, Erasmus Mundus Double Degree Programme
Master's Degree Programme in Space Science and Technology, Major: Space Robotics
- Master of Science, Luleå University of Technology, Sweden**, Erasmus Mundus Double Degree Programme
Master's Degree Programme in Space Science and Technology, Major: Space Technology

Master's Thesis

Title: **Terrain mapping near the vehicle, SLAM¹ and global map building for lunar rover**

Description: The aim of the thesis was to develop a system that would enable a lunar rover prototype to make a 3D terrain map for navigation. **Thesis Grade: 4/5**

Bachelor of Technology, Sardar Vallabhbhai National Institute of Technology (SVNIT), Surat, India

Major: Electronics Engineering, Minor: Digital Communication Technology

Bachelor's Thesis

Title: **Design of Medical Ventilator**

Description: The aim of the thesis was to make medical ventilators small and light weight by using a BLDC motor. A BLDC motor was used to control the air-pressure to help the patient in breathing.

Thesis Grade: 9/10

Technical abilities and skills

- I consider myself a robotics systems software generalist with more experience in writing real-time software. I have tinkered in some way or the other with many parts of the computing stack starting from transistor all the way up to user space software.

A partial list keywords of the technologies I have worked with is listed below.

Languages	C/C++, Python, bash-scripting, C#, Matlab and familiarity with HDL	RTOS	FreeRTOS, ZephyrRTOS
Debuggers	Lauterbach Trace32, Segger, GDB, OpenOCD	CPU-	ARM Cortex-M, Cortex-A, RISC-V,
Electronics	Electronic System Design, PCB Designing	Archs	Xtensa , AVR, 8051
Embedded Protocols	SPI, I2C, CAN, USART/UART, LIN, SWD	Other	Yocto, Linux Kernel Modules, CMake,
		Software	Qt, git, svn
		Robotics- Software	ROS, VREP, Familiar with Gazebo & MORSE

Miscellaneous Info.

Occasionally some people have found the following information useful, to know a bit more about me.

- Received full scholarship for two years from the European Union which funded my Master's Degree Programme in Space Science and Technology.
- Selected for the national level scholarship/internship programme called Kishore Vaigyanik Protsahan Yojana (KVPY²) in 2008 by IISc, Bangalore and IIT-Bombay, which is given to encourage research in India. This provided me funding to spend my summers doing research at IIT-Bombay with a Robotics Professor.
- Secured an All India Rank of 3738 (**top 1%**) in IIT-JEE³-2006 which is the most competitive Engineering Entrance Examination in India.

¹Simultaneous Localization And Mapping

²Kishore Vaigyanik Protsahan Yojana - Translates to Young Scientist Encouragement Programme

³Indian Institute of Technology-Joint Entrance Examination