

## PROFILE

Architecture undergraduate studying at IIT Roorkee with special interest on energy efficiency, Net Zero Energy-Water-Waste building technologies, building automation and architectural robotics.

A self-motivated, creative, technophilic individual internally driven to learn, design and develop new things. A person who always stays cheerful and positive and with good leadership qualities with high solidarity.

## S Portfolio Website

sanjeevkrishnan.github.io

### in LinkedIn

linkedin.com/in/rsanjeevk

## O GitHub

github.com/SanjeevKrishnan

# Sanjeev Krishnan R.

Student | Aspiring Building Scientist

sanjeev.krishnan.r@gmail.com

+91 8148095505

♀ Chennai 600064, India

### EDUCATION

Bachelor of Architecture Indian Institute of Technology Roorkee 2018-23 | CGPA 7.454 (Spring 2020-21)

### **Twelfth Grade**

Maharishi Vidya Mandir, Chennai 2018 | PCM + Computer Science | CBSE | 95 %

## **Tenth Grade**

Sreevatsa Viswanathan Vivekananda Vidyalaya, Chennai 2016 | Maths + Science | CBSE | CGPA 10.0

#### INTERNSHIP

## **Summer Internship**

#### NPTEL IIT Madras

June - July, 2021

- Underwent a two-month research internship offered by NPTEL IIT Madras in the domain of Building Science.
- Did an extensive research about the basic principles of building science and its applications.
- Experimented with the practical impacts of building science through software simulations and documented them as youtube video series.

## **Research Internship**

**IIT Roorkee** 

May, 2019

- Underwent one-month research internship under the guidance of Prof.Dr.Rajasekar E., Department of Architecture and Planning, IIT Roorkee.
- Worked on an academic research project "Development of Wearable Device to Asses Thermal Comfort" that is currently under patenting process.
- Designed and developed data logging modules for measuring humidity and air temperature.

### SKILLS

### Industry Knowledge

Architectural Design Energy-Efficient Building Technology Automation Artificial Intelligence IoT

### **Tools & Technologies**

AutoCAD Revit Grasshopper 3D Gh-Ladybug&Honeybee SimScale Arduino RaspberryPi Tensorflow Dialogflow Git openCV Pandas numpy

Computer Languages Python C/C++ HTML CSS Javascript

Languages Tamil (native) English (proficient) Hindi(proficient)



## ACHIEVEMENTS

- · Finalists of Solar Decathlon India 2020-21. Shortlisted in Top 6 under Office Building Division.
- Represented IIT Roorkee in Inter IIT Tech Meet 8.0 in the event Engineer's Conclave. Our Contingent was the Overall Winner of Inter IIT Tech Meet 8.0.
- · Semi-finalists of India **Innovation Challenge** Design Contest (IICDC) 2019 byTexas Instruments.
- Secured Top 1% rank with a consolidated score of 100% in the NPTEL Online **Certification Course** "Principles and Applications of Building Science" offered by IIT Roorkee.

## SOFT SKILLS

Team work	• • • • •
Communication	• • • • •
Creativity	••••
Management	• • • • •
Leadership	

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## NOTABLE PROJECTS

## **NetZero Building Design**

## Architecture | Solar Decathlon India

Sep 2020 - Apr 2021

- Proposed a cost-effective, scalable, NetZero Office Building Design solution for phase II extension of Infosys Mohali.
- Worked on innovation in building automation, engineering systems, scalability and affordability.
- · Pitched AI based Sensor-less Building Automation System and thermal comfort monitoring system.
- · Competed amongst top 6 finalists of the first-ever Solar Decathlon India

## **Bus Terminus Redesign**

### Architecture | NASA India-ANDC 2020-21

Jun 2020 - Sep 2020

- Researched and analysed about pre and post-pandemic effects on mobility spaces and its stakeholders, and redesigned the existing Haridwar Interstate Bus Terminus.
- · Actively learned about the effects of pandemic in passenger flow and worked on spatial planning and 3D modelling.

# **Restaurant of the Future**

### **Robotics | IIT Roorkee**

Jan 2020 - Apr 2020

- Developed a robot that can replace waiters in restaurants.
- Worked on implementing natural language processing(NLP) to create a chatbot that replicates typical human-human interaction.
- · Achieved a success rate of 90% in conversations during the test phase.

# **Chitrak - Quadruped Bot**

### **Robotics | IIT Roorkee**

- Designed a power-efficient and cost-effective quadruped robot.
- Implemented spline algorithm in trajectory planning for smooth motion, tested trot gait cycle and creep gait cycle for its movement.

# EXTRA CURRICULAR

### **Additional Secretary**

Models and Robotics Section, IIT Roorkee

Contributed to three core team research projects, mentored two core team research projects and four open projects. Currently managing Industrial relations.

# Manager - R&D Connect

Students' Technical Council, IIT Roorkee

Jan 2020 - May 2020 Initiated collaboration between IIT Roorkee and Industries to endow R&D laboratories in various departments.

# Volunteer

National Service Scheme, IIT Roorkee

Participated in primary education campaigns conducted in nearby villages to create awareness. Took part in Blood Donation Camp 2018 organized by NSS IIT Roorkee.

Aug 2019 - Oct 2019

May 2019 - Present

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Jul 2018 - Present