

# RAKESH GOURANI

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## OBJECTIVE

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To pursue a challenging career and be a part of progressive organization that gives a scope to enhance my knowledge and utilizing my skills towards the growth of the organization.

## EDUCATION

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<b>Sri Jayachamarajendra College of Engineering, Mysuru.</b> Bachelor of Engineering, Electronics and Communication Engineering CGPA: 9.35/10.00	May 2019
<b>Mother Teresa PU College, Mysuru.</b> Senior Secondary Education, 12th Percentage: 87.17/100	May 2015
<b>Amrita Vidyalayam, Mysuru.</b> Secondary Education, 10th CGPA: 10/10	May 2013

## SKILLS

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<b>Related Computer Softwares:</b>	Matlab, Cisco Packet Tracer, OpenCV, Proteus, TINA-TI, LabView, Arduino IDE
<b>Hardware Description Languages:</b>	Verilog
<b>Programming Languages:</b>	Python, C, C++(basic)
<b>Micro-controller:</b>	Arduino, 8051, MSP430, Raspberry Pi

## INTERNSHIP

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**Product Development and Quality Control Training at Larsen & Toubro Ltd.** May 2017- June 2017

- Used XBee for wireless communication between two remote devices.
- Studied tests performed on electrical meters and their purpose.
- Methods employed to avoid tampering of meters.

## PROJECTS

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<b>Multipurpose Swarm Robots</b>	March 2018- April 2018
<ul style="list-style-type: none"><li>· Worked on developing algorithm for traversal of the bots inside a closed room.</li><li>· Facilitated wireless communication between the bots.</li><li>· Decreased the probability of collision by employing collision detection.</li><li>· A master control was set up in case of emergency.</li><li>· The bots were collectively capable of cleaning a room.</li><li>· Wrote an IEEE paper based on the project.</li></ul>	
<b>Object following robot using OpenCV</b>	June 2017 - July 2017
<ul style="list-style-type: none"><li>· Main aim of project was to detect the object based on its color and determine its center dynamically.</li><li>· A bot was designed to move towards the calculated center and stop when the object is too close.</li><li>· Also accuracy of detection was improved by taking into account the objects contour.</li></ul>	

## **Home Automation and Event Logging**

March 2018 - April 2018

- Main aim of the project was to automate lighting, heating of the house and reduce power consumption.
- The project was simulated in proteus for checking feasibility.
- MSP430 was used for controlling the entire operation and for logging the results into an excel sheet.
- Based on the results from excel sheet, graphs were plotted and warnings were provided in case of over usage.

## **Forecasating Footfall**

June 2018 - July 2018

- Collect data from ultrasonic sensor and update it to database.
- Data was processed and stored in required format.
- Model was built to forecast footfall based on previous history.

## **u-law Companding of real time audio using Matlab**

June 2016 - July 2016

- Dynamic range of an audio signal was reduced by companding.
- The companded signal was compared with given signal and graph was plotted.

## **COURSES COMPLETED ONLINE**

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Data Structures and Algorithms using Python by NPTEL.

Internet Connection: How to get online? by Coursera.

Machine Learning by Coursera. (Ongoing)

## **ACHIEVEMENTS**

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Semi finalist of Techgig code Gladiators competition.

Qualified JEE mains and other national level exams.

Academic excellence in the year 2012-2013.

Lead school kho-kho team for two years, from 2011 to 2013.

Participated in a cyclothon and cycled 160km in 12 hours.

## **ORGANIZATIONS**

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Active member of IEEE-SJCE

## **EXTRA-CIRRICULAR ACTIVITIES**

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I unwind my daily happenings in a diary.

I participate in hackathons, coding competitions and play codewars.

Represented school and college in kho-kho and cricket.

Participated in drawing and chess competitions.

Participated in marathons and cyclothons.

Participated in state level project and quiz competition.