

# KARTHIK P BILICHOD

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## OBJECTIVE

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I am interested to work in the field of Embedded systems, Robotics(especially aerial robotics), RF and Antennas. I will definitely work hard and give my best to solve problems which will help the society.

## EDUCATION

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Course	Discipline	Institution	Year of passing	Score
School	Class-10th CBSE	Kendriya Vidyalaya Hospet	2014	9.6 CGPA
Pre University	Class-12th CBSE	Sharada Vidyaniketana Public School	2016	92.25(PCMB) Percent
B.Tech	Electronics and Communication Engineering	PES University	2020	8.3 CGPA Sem 1 to Sem 5

## PROJECTS

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1. **Ball catching Robot** during Summer internship at Microsoft Innovation Lab PES University under the guidance of Dr.Venkatarangan MJ and Prof Rajasekar M. Used Firebird-V platform for catching and OpenCV for trajectory prediction.
2. **Self balancing Robot** using PID control as a mini project for the course Introduction to Robotics under the guidance of Dr.Venkatrangan MJ.
3. Faster computation of **Inverse of huge matrices** using recurrent neural networks as a mini project for course Machine Learning under the guidance of Dr.Koshy K George.**(In progress)**
4. **Determination of array factor for Superdirective characteristics** as a research project under the guidance of Dr.Saumya Adhikari SA.
5. A **Drone** for Defence applications as a hobby project.**(In progress)**
6. Establishing fast communication between multiple ESP32 modules using **WiFi Direct** (without internet) under the guidance of Dr.Manikandan J at CORI, PES University.
7. **Sun tracking solar panel** using AT89C51 microcontroller and LDRs as a mini project for the course Microcontrollers.
8. **Cell Phone Detector** using LM358 Dual OpAmp as a mini project for the course Linear Integrated Circuits.
9. **Fruit Plucking Robot** for JED-I(Joy of Engineering and design) lab using Arduino Uno and image processing using OpenCV.

## TRAINING AND INTERNSHIPS

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- **PNM Satellite Design course** held at PES University by Prof. Sharan Asundi from Tuskegee University.
- **Compu music** course to produce and compose music using software Chuck.
- **IoT workshop** held at PES University by i3indya technologies.
- Interned at **CORI**( Crucible for Research and Innovation), PES University.
- Interned at **Microsoft Innovation Lab**, PES University.

## RESEARCH PUBLICATIONS

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1. **To synthesize an Array Factor for Superdirective characteristics of a broadside Antenna.** Have successfully completed and finalized the array factor and the work is about to be published. It is being done under the guidance of **Dr.Saumya Adhikari SA.**

## TECHNICAL SKILLS

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- **Programming languages :**  
C, C++, Python, Matlab.
- **Software worked with :**  
Atmel studio 6, Arduino IDE, Scilab, MATLAB, keiluvision 3, XCTU, Blender Animation.
- **Hardware worked with :**  
Arduino Uno and NANO, Firebird V robot with ATmega 2560 microcontroller, Xbee Modules, ESP32 Wifi Module, Various sensor interfaces.
- **OS worked in :**  
Ubuntu , Microsoft Windows 7/8/10 ,XP

## SOFT SKILLS

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1. Hard working and Resilient.
2. Helping Nature.
3. Good leadership qualities.
4. Good in team work.
5. Languages spoken: Kannada, English, Hindi, Telugu.

## EXTRA - CURRICULAR ACTIVITIES

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- Attended Foreign language courses. Opted and passed in German language course from PES University.
- Tabla and keyboard player.
- Basketball and Badminton player.
- Learning Sanskrit and reading ancient Indian texts in Sanskrit.

## CO - CURRICULAR ACTIVITIES

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1. Attend many talks and guest lectures. Attended the talk of 2017 Nobel Laureate **Kip Thorne** at ICTS, Bangalore on 11th Jan 2018.
2. Participated and won third prize in college technical fest **Prakalpa**.
3. Participated in Eyantra Robotics Competition 2017 and 2018. Certificate of completion in 2017 and finalists in 2018.
4. Have done Mini projects based on regular courses to understand practical aspects of course work.