

# 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.