Abhay Sheel Anand

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EDUCATION

BHARATI VIDYAPEETH'S COLLEGE OF ENGINEERING
B.Tech, Electronics and Communication Engineering
2016-2020 (anticipated) | New Delhi
Cum. CGPA: 8.01

VIKAS BHARATI PUBLIC SCHOOL
AISSCE, CBSE Board (XII) PCM
Grad. 2015| New Delhi, India
Percentage - 93%

LINKS

Website:// abhaysheelanand
LinkedIn:// abhaysheelanand
Github:// abhaysheel

PERSONAL DETAILS

Father's Name: Dharamavir Singh
Mother's Name: Rekha Rani
Sex: Male
Nationality: Indian
Marital Status: Single

COURSEWORK

TRAINEE
Cyborg labs: 06/2017-07/2017
- Embedded Systems
- Introduction to PCB deigning
- Robotics

COURSE
Udacity/BVPIEEE-CS : 01/2017-03/2017
- Machine Learning and AI

SKILLS

GENERAL
Time Management • Debugging •
Innovative and Minimal Approach •
Curiosity • Reciprocating Knowledge

TECHNOLOGIES
Robotics and Embedded Systems •
ROS(Robotics Operating System) •
Neural Networks and Deep Learning •
Serial Communication • Signal
Processing • Digital Image Processing •
Internet of Things • 3D Modelling

RESEARCH INTERESTS

Robotics, Embedded systems, Deep Learning, VLC, Mobile Computing, IOT

EXPERIENCE

AEROGRAM | IIT DELHI | Embedded Engineer
12/18 - 03/19 | New Delhi
- Developing personal air quality monitoring device and network devices on ARM micro-controller.

IIT DELHI | VISIBLE LIGHT COMM. |Research Intern
03/18 - 08/18 | IIT Delhi

- Analysis of the MAC layers in Visible Light Communication in NS3(Network Simulator).
- Building the complete NS3 module for Visible Light Communication.

RESEARCH

ANALYSIS OF MAC LAYERS ASSOCIATED WITH VLC IN NS3 AND MATLAB
M. Bhutani, AS Anand, B. Chhaglani, A. Arora, A. Rao
The implementation of MAC layer on MATLAB and NS3 has been successfully done and various results related to throughput, delay and performance has been studied. Along with building modules for the same.

"PLUGFREE" AUTONOMOUS CHARGING OF DRONES. (SPONSORED BY GSU, USA)
A. Ashok, N. Garg, AS Anand, R. Ahuja
An autonomous solution for the problem concerning the low battery life of drones. Includes building a external electronic module prototype.

RESEARCH PUBLICATIONS

AN INNOVATIVE PASSIVE INDOOR LOCALISATION AND NAVIGATION APPROACH, INDIACOM 2018
AS Anand, B. Chhaglani, S. Garg, J. Singh

AWARDS

I ST POSITION: EYANTRA 2018
03/2019
Secured I[st] position in eYRC-2018 National Robotics Competition held at IIT Bombay under the theme Pollinator Bee. Top 6 teams were selected as finalist from 44 teams across the country. Whole theme was based ROS framework.

WINNER :SMART INDIA HACKATHON 2019
03/2019
Winner of SIH 2019 in Amadeus Software Labs theme. Amadeus Software Labs offered two problem statements one of which was "Use Augmented/Virtual Reality (AR/VR) to enhance travel experience of customer", the solution was proposed for the same.

PROGRAMMING

Proficient

Python • C • Embedded C/Arduino •
Blender • Android

Mediocre

MATLAB • VHDL • XML • TCL •
Assembly • OpenCV(Library) •
Tensorflow(Library) • Keras(library)

Familiar:

C++ •

HARDWARE

Raspberry Pi 3B • Arduino Boards •
Firebird V • XBees 2.4C • CC3D Flight
Controller • Texas Instruments
MSP-430 • ATmega16 MCU

SOFTWARE

Arduino IDE • Unity • ROS(Robotics
Operating System) • Blender •
Proteus • XCTU • Wordpress •
Audacity • Libre Pilot • Orcad
Capture • AVR Studio • Atmel Studio •
Adobe Photoshop CS6 • Processing •
GNU Sim8085S • Mentor Graphics
Pyxis • Mentor Graphics QuestaSim

LANGUAGES

• Hindi(Native Proficiency)
• English(C1 Proficiency)

ACTIVITIES

CO-CURRICULAR

RAS SB IEEE BVCOE |Chairperson
08/18 – Now | New Delhi

RAS SB IEEE BVCOE |Research and
Development Hea
08/17 – 07/18 | New Delhi

EXTRA-CURRICULAR

Design and Event Manager at The
Sports Society, BVCOE •
Photographer • Graphics Designing
volunteer

VOLUNTEERING

Core cultural volunteer at BVCOE-
NSS(National Service Scheme)

HOBBIES

Going on random nature photo shoots •
Travelling • Astronomy enthusiast •
Playing Table Tennis • Swimmimg
• Running • Making • Sketching •
Watching Science Fiction

I ST POSITION: HACK-A-BIT

10/2018

First position at Hack-A-Bit, BIT Mesra, for developing a novel assistant
system for deaf and mute individuals within 36 hrs.

WINNER :EV HACKATHON:INDIA-AUSTRALIA JOINT INITIATIVE

08/2018

EV Hackathon organised by ChargePoint+, New Nexus Energy, California
clean energy fund. Build an innovative solution in simplifying electric
charging procedure. Youtube-link

PROJECTS

DRONE TO DRONE VLC

Ongoing

Drone swarm robotics using visible light communication and
ROS(Robotics Operating System).

TRAVEL YA(AR)

03/2019

An SDK platform for travel agency apps e.g. MakemyTrip to book the
sports stadium seats interactively using augmented/virtual reality
technology.

HANDY: PERFECT ASSISTANT FOR DEAF N MUTE

10/2018

An assistant consisting of an integrated system for proper deaf and mute
conversation in daily life along with smart alert system.

TOURISTANT

07/2018

A positioning-system that guides and assists tourists at tourist
destinations using Received Signal Strength Indicator triangulation
mechanism.

SFA:SMART FARMING ASSISTANT

03/2018

A sytem that makes farming crop-oriented. It sows seeds, analyses the
field sectionally and accordingly provides water and fertilizers.

CHASER DRONE

01/2017

A drone that chases away all kind of animal from the agricultural farm
using ROS(Robotics Operating System) and Computer vision(Open CV).

PLANTER BOT

11/2017

A bot that traverses an area using raspberry pi and picam and responses
to various colors and shapes in that area.

MENTORS

1. DR. SARITA AHLAWAT

BIRAC BIG INNOVATOR, TBIU, IIT-DELHI
Email Address: sahlawat@gmail.com

2. DR. ASHWIN ASHOK

ASSISTANT PROFESSOR, GEORGIA STATE UNIVERSITY
Email Address: aashok@gsu.edu