Abhijeet Bhattacharya

Contact Information

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Personal website - Click here

Education

Bharati Vidyaapeeth's College of Engineering — 2017 - Present
B.Tech. in Electrical and Electronics — CGPA 7.65/10

DLDAV Pitampura, — April 2017
Class XIIth, CBSE — C.B.S.E, 90%

Experience

- **Computer Vision Research Intern** — Present—Nov 2020
  CSIR-CEERI, Delhi
  Advisor: Mr. Pramod Kumar Tanwar
- **Remote Research Intern** — May 2020—Sept 2020
  Electrical Department, NIT AP
  Advisor: Dr. Sri Phani Krishna Karri
- **Summer Research Intern** — May 2019—August 2019
  Swaayatt Robots, Bhopal
- **Project Intern** — March 2019—April 2019
  Kausheleisen Company
- **Workshop Head** — 2—3 Feb 2019
  Innovicon, AI Conference
- **Winter Intern** — December 2018—Jan 2019
  CSIR-CEERI (NewDelhi)
  Advisor: Manoj Sharma
- **Technical Head** — 4—5 Oct. 2018
  WieHack, Women Hackathon
- **Trainee** — May 2018—Aug 2018
  Embedded Systems, IQB Solutions, Delhi

Publications

- **A. Bhattacharya,** T. Baweja, Dr SPK Karri 2020, "Epileptic seizure prediction using deep transformer model" Int. J. Neural Syst. Under Review.
- T. Baweja*, **A. Bhattacharya*,** Dr K. Tharani, S. Garg, 2020,"Automatic Seizure Prediction using CNN and LSTM" Medical Biological Engineering Computing. Under Review
- **A. Bhattacharya,** T. Baweja 2020,"Clear-View: A dataset for missing data in RemoteSensing Images." IEEE 19th World Symposium on Applied Machine Intelligence and Informatics. Video Accepted.
- **A. Bhattacharya,** Sandeep Banerjee, Saksham Girotra, Hridesh Shukla, Gaurang Bhardwaj, Sidharth Talia. Simulation and Design of PI-Controller for the Control of Buck Converter. Journal of Microelectronics and Solid State Devices. 2020; 7(1): 2633p. Link PDF

Ongoing projects

- **DeepFiller:** A Computer Vision research project for Image Inpainting.
- **DepthPrediction** A Computer Vision project to predict the depth in an image using a monocular video.

Positions of Responsibility

- R.A.U. Head (Robotics and Automation United Head) — June - Dec 2019
- Robotics Chapter Representative — April 2018 - April 2019
  - Took workshops in College in programming concepts on Arduino/Raspberry, Image Processing and Robotics to 100+ students.

Awards

- **Finalist** and got **shortlisted** in TOP 5 of the IISF event (Virtual) — 2020
- **1st runner up** in Drones Ideathon I.I.T. Roorkee — 2019
- **Winner** in the East-India's Largest Hackathon HACK-A-BIT organised by BIT-MESRA (Award)(Award)(News) — 2018
- Top 20 in **eYantra - National Robotics Competition**, **IIT Bombay** — 2018
- Ranked 320 in **IEEE XTreme Hackathon** — 2018
- Our Snake-bot got a funding of $**22,000** from Rajasthan Government. — 2017
- **Winner** in the Rajasthan Digifest Hackathon 5.0 organised by Rajasthan Government.Award Ceremony (2:37:00) (URL: Award Ceremony)(Twitter)(News) — 2017

Technical Projects

- **"Emotion Recognition"** Using CNN to differentiate 5 emotions. — 2019
- **"Image Segmentation from Space"** Using CNN, VGG. — 2019
- **"Object Detection"** Using YOLO, Mask-RCNN. — 2019
- **"Optical flow"** Using Lucas Kanade method. — 2019
- **"Depth Mapping"** Using pixel shift on two Cameras. — 2019
- **"Semantic Segmentation"** for Indian Road data-sets — 2019
- **"CRF"** for segmented images — 2019
- **"CARLA"** For data-set collection for semantic segmentation — 2019
- **"Speech to words"** on Raspberry-pi — 2019
- **"Nutty Squirrel"** For Eyantra Competition — 2019
- **"Handy"** An Integrated deaf and mute conversation smart alert system — 2018
- **"Venom"** Snake-bot for disasters — 2017
- **"Attendance"** Attendance based on bio-metric system — 2018
- **"Snakebot"** A robot based on movement of snake. — 2018
- **"Many Robotic Cars"** Using Arduino, Bluetooth, Mobile. — 2017
- **"Home Automation"** Using Arduino, ESP. — 2017

Skills and Tools

Technologies : Machine Learning, Deep Learning, Computer Vision, Image Processing, Linear Algebra, Probabilistic Analysis, Micro-controllers and processors
Languages : English, Hindi, Bengali (Spoken).
Programming Languages :C/C++, Embedded C, Python, MAT-LAB, Open-CV, LaTeX
Softwares : Blender, Vrep, Proteus, XCTU, AVR Studios, Atmel Studios, Adobe Photoshop.

References

- **Dr. Sri Phani Krishna Karri** — Asst Prof - E.E NIT, AP
  Email: phani.moresmiles@gmail.com
- **Sanjeev Sharma** — CEO of Swaayatt Robots
  Email: sanjeevsharma@swaayatt-robots.com
- **Dr. Kusum Tharani** — HoD, E.E.E. dept. BVCOE
  Email: kusum.tharani@bharatividyapeeth.edu
- **Sandeep Banerjee** — Asst Prof- E.E.E. BVCOE
  Email: sandeepbanerjee25@gmail.com