DANISH BANSAL

Tech Enthusiast & Upcoming Engineer

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EXPERIENCE

Drone Development & Unmanned Vehicle Intern

Stratum Analytics

June 2020 – Aug 2020 | Delhi, IN

- Created a semiautonomous drone to survey and capture agriculture fields following a programmable path .
- Developed on a truly mobile base station and improved efficiency and range of the drone.
- Designed a custom power delivery circuit board.

R&D Intern

LG Electronics

May 2019 – July 2019 | G.Noida, UP, IN

- Created electronic control systems for *Roti* (Indian plain bread) Maker using ATMega2560, ESP8266NodeMCU and LG's proprietary chipset.
- Started a patent-pending project to control household appliances monitor their real-time power usage .
- Instituted a system to monitor global power saved using LG's products.

Electronics Intern

Microtek

May 2018 – July 2018 | Delhi, IN

- Increased the feasibility to place home inverters in living rooms for small households by adding features like wireless charging and USB power delivery ports to the inverter.
- Studied and made power delivery circuits for USB and wireless charging. Also improved power isolation for safety.
- Enhanced the display with modern UI/UX.

College Society Leads

ISTE | Frosh

2017 – 2020 | Punjab, IN

- Acting General Secretary (Society Head) for Indian Society for Technical Education(ISTE) at my institute. Responsibilities include managing day-to-day operations such as organising workshops & events, managing participation and leading the team.
- Served as Core Team member for Frosh, the entity responsible for organising and managing intake of freshers, their orientation and technical workshop weeks.

Workshops Conducted

ISTE

2017 – present | Punjab, IN

- Circuit Design & Soldering (400 Students)
- Drones & UAV (90 Students)
- Electronic Components (200 Students)
- C/C++ (120 Students)

PROJECTS

- **Digital Braille System (patent-pending)**
  Working on creating a solution from the ground up to translate text obtained from a system to a compact, pocket friendly digital braille reader. The solution currently has support for 12 inline characters with multiple row support being worked upon.
- Developed a Facebook Messenger chatbot using python to automatically reply to queries regarding admission process for my college. Catered over 10k people and 50k messages, from May'18 to Jan'20.
- Working on a small form factor UAV to detect fires and mapping heat zones for the safety of firemen. Also developing a module to detect any cracks/faults in a structures such as pillars and walls.
- Created a custom lighting solution for our college auditorium using over 2000 white and RGB LEDs. The whole system reacted to music generating different visual effects. This was done using ESP8266, Arduino relays and a Linux server running python scripts.
- **R&D Project @ Conrad Innovation Challenge**
  Hardware and Software Development of a patented city-wide model for controlling traffic and pollution.
- Worked on the hardware and platform integration of an indoor drone system to be deployed in warehouses to carry small payloads.
- Created a modular sensor array to be used in Industries as an artificial nose to easily detect various kinds of gas and chemical leaks.

EDUCATION

B.E. in Electronics & Computers

Thapar Institute

July 2017 – Present

SKILLS

C | C++ | VHDL | Verilog | UAV & Drones | Embedded Systems | Arduino | Robotics | Battery & Power Systems | Soldering | SQL | Python | Oscilloscopes & Analysers | FPGA | Texas-Webench | Texas-TIVA | Texas-MSP | SQL | Office

LANGUAGES

English
Hindi
Punjabi: Vocal
French