Dikshant Agrawal

Junior Engineer - IITI DRISHTI CPS Foundation | Mechatronics Engineer
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PERSONAL STATEMENT

I am an enthusiastic learner actively looking for an opportunity to generate ideas and devise solutions aligned with the organization's vision. I thrive in a hands-on driven environment with a good mentor.

AREAS OF INTEREST

Digital Twin of equipment

Full stack development for IoT/Digital Twin projects

Robotics and Embedded system

SKILLS

Electronics: Embedded system, Internet of Things, Hardware design, PCB design, Microcontrollers and PLC controllers

Computer: Python, C, HTML, CSS, EC2 Instance (AWS), MySQL, RESTful API

Mechanical: Additive Manufacturing, 3D CAD Designs – Fusion360, CNC, Laser Cutting

OS: Windows, Ubuntu, Raspbian

AWARDS AND RECOGNITION

Runner up in **Mechatronics, India Skills 2022 (Regional)** organized by Ministry of Skill Development and Entrepreneurship and NSDC.

Secured **3rd position** in **Mechatronics** trade organized by MP state skill Mission.

Consecutively **two-time winner** in Short Film competition at SVVV in 2022 and 2021

Winner in Photography competition at annual tech-fest of SVVV in 2020

WORK EXPERINCE

IITI DRISHTI CPS Foundation, IIT Indore – Junior Engineer
January 2023 – Present, Indore, India

Developing a digital twin of critical care equipment for predictive analysis to prevent failure, in association with Cambridge University, UK and AIIMS, New Delhi.

Mentoring projects and researchers in the field of Embedded systems, IoT, Artificial Intelligence, Computer Aided Design to help them in technology advancement and commercialization.

Scientech Technologies Pvt. Ltd. – R&D Engineer
September 2022 – January 2023, Indore, India

Research and development of Educational Training kits, Data Acquisition modules (DAQ), Smart Energy Meter, EV Charger, Work benches, Internet of Things, Hardware design, Artificial Intelligence.

INTERNSHIP & TRAINING

EInfochips Pvt Ltd (An Arrow Company) - Hardware Design Engineer
January 2022 – July 2022, Ahmedabad, India

Designed and Developed Buck, Boost and Buck-Boost converter using Cadence OrCAD, Schematic design, Symbol creation, PCB Design, functional specifications, power management, Component Selection, Communication Protocols- I2C, SPI, UART.

Toyota Kirloskar Motors - Trainee
September 2021 - September 2021, Bangalore, India

Industrial Automation on Multi production system - distribution and testing stations by FESTO, PLC Programming on various controllers, pneumatic hosing and wire conditioning.

Elite Techno Group - Intern
August 2021 - September 2021, Bangalore, India

Research on electric vehicle charging infrastructure in India, types of motor, battery parameters and chargers.

Dantin Technologies Pvt Ltd - Electronic System Design Intern
March 2021 - July 2021, Bangalore, India

Addresses design challenges and evaluates alternative design models to meet project requirements. Schematic design, PCB layout, component selection, sourcing, and python scripting to automate routine tasks.

STRENGTHS

Critical Thinking

Initiative-taking

Adaptability

Problem Solving

Active listening

Empathy and Helpfulness

ADDITIONAL ACTIVITIES

A Volunteer for **NHRCCB** for social activities, awareness, and protection of Human Rights

Worked as core member for Samadhan Society to research to make rape free India.

Proficient in Hindi and English

PROJECTS

Digital Health Kiosk – IITI DRISHTI CPS FOUNDATION
August 2023 – Present

The foundation's unique technology transforms the medical facility experience by authenticating users through facial recognition for seamless operations. Using MySQL for effective data management. and analyzes seven health variables using precision sensors connected to an ESP controller based on IoT principles. This adaptable solution not only improves the registration desk but also collects past data to produce targeted recommendations, thereby increasing patient care and simplifying seamless expansion.

WATER VENDING MACHINE - NMPSM
August 2022 - December 2022

A machine that dispenses water in non-plastic water bottles and showcases all the parameters related to water quality on cloud as well as on screen display using embedded systems and Internet of Things. The final design is yet to be implemented in the market.

SMART CARRYCOT
August 2021 - December 2021

An innovative, smart, protective, and wireless carrycot system to monitor and report data on clouds such as body temperature, humidity of bed, motion of baby using Internet of Things used by working parents for an infant or toddler.

*Research paper on "**Smart carrycot**" is published in "Innovative and sustainable developments in electrical and electronics engineering".*

SMART LIBRARY
December 2020 - May 2021

A book vending machine makes book borrowing and returning easier by combining RFID library cards with the machine's accessible book inventory. It handles library data and sends SMS reminders to students to ensure timely book returns.

EDUCATION

Shri Vaishnav Institute of Technology and Science, SVVV
June 2018 - June 2022, Indore, India
B.Tech. in Mechatronics Engineering - **8.30** CGPA

St. Arnold's Higher Secondary School, CBSE
April 2017 - April 2018, Indore, India
Senior Secondary - Science (10+2)