Prabal Pratap Singh Rawat

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Education

Rustamji Institute of Technology, BSF Academy Tekanpur	September 2022 –Present
B.Tech in Electronics and Communication Engineering	*CGPA: 7.75 /10*

Relevant Coursework

- Digital System Design
- VLSI Design
- Microprocessor
- Digital Communication
- Electronic devices
- Control System

Experience

Bhilai Steel Plant, Steel Authority of India (SAIL)	September 2025 – October 2025
Project Intern − Telecommunication Department.	*Bhilai, India*

- Hands on experience with industrial telecommunications and surveillance systems.
- Worked on LoRa communication project for unified industrial communication.

Denso Haryana Pvt. Ltd.	**April 2025**
Summer Trainee	*Gurugram, India*

- Studied and observed Japanese style Lean manufacturing process.
- Trained on Electronics production techniques, line balancing, BCT optimization, SWCT, supply chain and logistics optimization. SMD, reflow, PCB and Electronics parts handling and logistics, Soldering QC, 5M+1E Method Analysis

Projects

ESP 32 based LoRa Text Terminals | *CAD/3D printing/embedded systems.*   **October 2025**
- Designed and developed ESP32 based LoRa text terminals as project for Telecomm. Department, Bhilai Steel Plant, SAIL. Custom designed and 3D printed enclosures using Onshape and custom THT hand soldered PCB.

UAV systems and components | *Betaflight, C/C++, Onshape, Ansys*   **August 2025**
- Designed and developed several UAV systems and components – (i) High performance MUAV, (ii) Adapter plates for FC mounting, (iii) Custom MUAV landing gear made using Dfam principles and FEA simulations.

3D structure realization of Diode | *Sentaurus TCAD*   **April 2025**
- Realized a 3D diode structure using Sprocess to create doping profile and Sdevice to visualize effect of temperature in device, done under Indian semiconductor workforce development program (ISWDP) cohort 4.

Data extraction application | *Python*   **June 2023**
- PDF Text and Table extraction tool using Optical Character Recognition (OCR) into CSV and Excel files immediately. Using pandas, OCR, and Tabula,

Movie Ticketing System | *Python*   **November 2021**
- Simulated a ticket and theater management system using Python with pandas, matplotlib.pyplot, csv, random. Implementing user profiles for staff, admin and guest and real time theater management, in addition to plotting movie performance graphs.

Technical Skills

Languages	C, C++, Python, SQL, rust, VHDL.
Tools	MATLAB, Cadence (Virtuoso), LT-Spice Arduino,Onshape/Fusion360, Bambu Labs studio, Ansys, KiCAD, CopellaVsim

Leadership & Extracurricular

IITD-RJIT Innovation Club	**July 2025- Present**
President − Project and team lead for Innovation club	
	RJIT, BSF Acy., Tekanpur

Achievements & Certifications

- Received 1,500 INR for winning second place in Exhibition on Innovative Products and Designs Exhibition on Innovative Products and Designs Issued by Regional Science Center Bhopal , Ministry of Culture, Govt. of India.
- ISWDP Samsung Student Fellowship recipient.