

Jyoti Rautela

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EDUCATION

IIT Roorkee, Uttarakhand, India July 2024 - May 2026
M.Des. in Industrial Design, DOD CGPA 8.65

NIFT Bhubaneswar, Odisha, India Aug 2016 - Sep 2020
B.Des. in Fashion & Lifestyle Accessory Design CGPA 8.0

RESEARCH EXPERIENCE

Mobility & Vehicle Design (MVD) Lab Jun- Aug 2025
Research Intern (Advisor: Prof. Unni Mohan M.) IIT Bombay, India

- Helm/dashboard redesign - Kochi Water Metro, Kerala-HCI-Ergonomics-HFD

Mobility & Vehicle Design (MVD) Lab Sept - Dec 2025
Graduate research Intern (Advisor Prof. Nishant Sharma) IIT Bombay, India

- Designed a low-floor mobility aid for women with lower-limb impairment, integrating anthropometric data, and speculative design methods.

PROJECTS

Low floor Assistive Device - Women with lower limb disabilities Sept 2025 - Ongoing
in domestic Indian context [P1]

- Engineered a floor-to-stand assist tuned to Indian female anthropometry and home constraints (tile COF, squat-toilet/doorway clearances), using lever-assist mechanics to reduce knee-hip load during transfer. | *Field co-design study with clinicians & PwDs* (Delhi, Mumbai, Roorkee) | *Advisor: Prof. Madhan Vasudevan, Prof. Abinash Swain (IITR), Prof. Nishant Sharma (IITB)*

AuraMist - Multimodal Mood Sensing & Just-in-Time Interventions [P2] Aug - Nov 2024

- Fused wearable skin temperature and eye tracking methods to infer arousal and valence, (paced breathing, focus blocks) with a BLE aroma-haptic device. | *Advisor: Prof. Saptarishi Kolay (IITR)*

RetroWalk - In-Shoe Gait Imbalance Sensing for Older Adults [P3] Oct 2019 - Feb 2020

- Built an instrumented insole with on-device fusion and load cells to estimate stride asymmetry and push real-time data via BLE app for safer walking for elderly. (Final year project) | *Advisor: Prof. Harish Rajiv (NIFT Bhubaneswar), Mr. Ankit Sengar (Benetton India Pvt. Ltd.)*

CONFERENCE

Emerge Conference 2026, IIT Bombay Mar 2026
Full Paper Presentation on **Participatory Design for Assistive Mobility in Indian Homes**

IDEAS Conference 2024, IIT Roorkee Oct 2024
Presented Abstract on **Tackling Postural Imbalance in Elderly People: A Technological Approach**

INDUSTRIAL EXPERIENCE

- Myntra Fashion** Mar 2023 - Aug 2024
Associate - Design | Footwear & Accessory Bangalore, India
- Built 3D CAD models: Sizing analytics-prototype material-aware design collections for Ducati, Nautica, HrX. Trend forecasting, Materials procurement, Sample handoffs.
- Rapawalk Pvt. Ltd.** Nov 2021 - Mar 2023
Product development & Sourcing Management | Accessory Bangalore, India
- Led end-to-end accessory development & sourcing: Material selection, vendor onboarding,
 - QC, and CAD-to-sample handoffs-for on-time, manufacturable launches.
- Benetton India** Dec 2019 - May 2020
Footwear Design Intern New Delhi, India
- Automated footwear product lifecycle: standardized lasts & molds, and worked in R & D department for my final year project [P3]

LEADERSHIP

- Department of Design, IIT Roorkee** Sept 2024 - Present
Department Placement Representative
- Led department internship/placement ops-employer outreach, recruitment drives, and portfolio clinics-while hosting a “Women in Design” workshop to advance inclusive hiring.
- Student Wellness Society, IIT Roorkee** Sept 2024 - May 2025
Women in Design Coordinator (dept-level)
- Led the talks on menstrual health, safety of students-conducted expert sessions/workshops

SKILLS

Methodology: Speculative and Participatory Design, Responsible Innovation, Interdisciplinary Approaches, Human-Centered Design, Human-Computer Interaction, Research through Design (RtD)
Design & Prototyping Tools: Adobe Creative Cloud, Figma, Unity, Arduino Uno, Rhino, 3ds max.
Programming Languages: Python (data processing, prototyping), HTML, CSS.

AWARDS

- Silver Medal, **Inter IIT Sports Meet** | *Basketball* | IIT Madras Dec 2025
Most Valued Player, **Inter IIT Sports Meet** | *Basketball* | IIT Kanpur Dec 2024
Gold Medal, **Inter IIT Sports Meet** | *Basketball* | IIT Kanpur Dec 2024

REFERENCE

- Dr. Madhan Kumar Vasudevan** | *Assistant Professor | Thesis Supervisor* IIT Roorkee, India
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Human-Computer Interaction, Haptics, Neuroscience, Affective Computing, Machine Learning
- Dr. Abinash Kumar Swain** | *Associate Professor | Thesis Supervisor* IIT Roorkee, India
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Mechanical engineering design, HMI, Design Methodology