

# Jyoti Rautela

Email: [jyoti\\_r@design.iitr.ac.in](mailto:jyoti_r@design.iitr.ac.in) , [jrautela0398@gmail.com](mailto:jrautela0398@gmail.com) |

Website: <https://jyoti-portfolio-2026.pages.dev/>

## EDUCATION

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**IIT Roorkee**, Uttarakhand, India **July 2024 - May 2026**  
*M.Des. in Industrial Design, DOD* CGPA 8.77

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

## RESEARCH EXPERIENCE

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

- Helm and cockpit 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

- Research project on a low-floor mobility aid for women with lower-limb impairment, integrating anthropometric data, and co-speculative and participatory design methods.  
| *Disability-Affordability-Built environments-Social infrastructure justice*

## PROJECTS

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**Low floor Assistive Device** - Understanding Assistive Mobility Barriers for **Sept 2025 - May 2026**  
People with Lower Limb Disabilities in domestic Indian context [P1]

- Developed a modular wheelchair rear-wheel prototype addressing everyday mobility barriers; translated participatory insights into lever-assisted expandability and compacting mechanisms to test and prototype for spatial accessibility frictions.  
| *Field co-design and participatory 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

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**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**

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- 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

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- Department of Design, IIT Roorkee** **Sept 2024 - May 2026**  
*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

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**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

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- 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

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- Dr. Madhan Kumar Vasudevan** | *Assistant Professor | Thesis Supervisor* IIT Roorkee, India  
[madhan.vasudevan@design.iitr.ac.in](mailto:madhan.vasudevan@design.iitr.ac.in) | +91 1332285825 ; +91 97917 61753  
Human-Computer Interaction, Haptics, Neuroscience, Affective Computing, Machine Learning
- Dr. Abinash Kumar Swain** | *Associate Professor | Thesis Supervisor* IIT Roorkee, India  
[abinash.swain@me.iitr.ac.in](mailto:abinash.swain@me.iitr.ac.in) | +91 7439979147  
Mechanical engineering design, HMI, Design Methodology