भारतीय प्रौद्योगिकी संस्थान कानपुर
Indian Institute of Technology Kanpur
Department of Design

Department of Design
Admission Prospectus

Contents

Join the Department of Design at IIT Kanpur!

Design education at IIT Kanpur is a transformative journey that fosters creativity and critical thinking. With a nice blend of theory and practice, our curriculum lays emphasis on user-centred approaches and incorporates human factors to ensure that designs effectively meet the needs and behaviours of users. Through hands-on projects, collaborative teamwork, and interdisciplinary learning, we prepare students for real-world challenges.

We incorporate elements of social innovation, encouraging students to tackle pressing societal issues through the development of sustainable products, applications, and services. We utilize advanced tools, technology, and design thinking methodologies to cultivate a mindset focused on continuous improvement and adaptability. We empower students to experiment with ideas, materials, and technologies, addressing complex challenges in an increasingly visual and interactive world. Candidates with previous work experience are encouraged to apply. We also encourage students to place a strong emphasis on intellectual craftsmanship and personal expression in all their design endeavours.

Join us to transform your passion into expertise and make a meaningful impact in the world of design. Explore your future at the Department of Design!

For more information, visit *https://www.iitk.ac.in/design/*

or contact us at Phone: 0512-259-7509.

Master of Design

Unlock your potential in the dynamic world of design with our Master's program tailored for aspiring innovators, entrepreneurs and researchers. M.Des at the Department of Design in IIT Kanpur broadly has three themes: Design Entrepreneurship, Design Research, and Design Practice.

1) Design Entrepreneurship:

Prepares you to launch and manage design-driven ventures, blending creativity with business acumen. As a design entrepreneur you can be a strategic changemaker for an organization by combining entrepreneurial thinking with design principles to drive innovation, influence culture, and create sustainable value.

2) Design Research:

Emphasizes critical inquiry and analytical skills, fostering the development of ground- breaking ideas and methodologies. As a design researcher you can position yourself as an academic and industrial researcher. You will create value for organisations by leveraging your research skills and insights to drive innovation, improve user experiences, and inform decision-making.

3) Design Practice:

Focuses on hands-on experience, empowering you to create impactful design-led solutions. As a practicing designer you can be a societal changemaker by harnessing your creative skills and design thinking principles. You will grow creatively as an expert designer and bring about a change by your design principles and values.

Under these themes students can pursue their academic and research interests in Product/ Industrial Design, Interaction Design, Human Machine Interaction, New Media, AR/VR/XR Design, HCI in sound and music, Design History & Theory, Visual Communication, Visual Culture, Typography, Animation & Films, AI/ML Design, Human Robot Interaction, Design for Sustainability, Crafts, System and Service Design, Strategic Design and Design Policy, Human Factors and Ergonomics (Physical & Cognitive), Speculative Design, Design Futures, Design Fictions, Spatial Design, Design for Industry 4.0/5.0, Agro-Ecological Design etc. We encourage dynamic minds to work on the above design streams to create the next generation of designers and design leaders. Details of the admission procedure can be found online at the following link:

https://www.iitk.ac.in/design/

PhD in Design

The PhD program in the Department of Design enables the research scholars to address complex societal problems that creates value with advanced design scholarships. Potential candidates are encouraged to contact the faculty to align their research interests. We engage in teaching and research in areas like Product/Industrial Design, Interaction Design, Voice User Interactions, Interactions with Smart Agents, Human Machine Interaction, New Media, AR/VR/XR Design, HCI in sound and music, Design History & Theory, Visual Communication, Visual Culture, Cultural Semiotics, Visual Ethnography, Typography, Animation & Films, AI/ML Design, Human Robot Interaction, Design for Sustainability, Crafts, System and Service Design, Strategic Design and Design Policy, Human Factors and Ergonomics (Physical & Cognitive), Speculative Design, Design Futures, Design Fictions, Spatial Design, Design for Industry 4.0/5.0, Agro-Ecological Design, Agricultural Anthropology, Social Agrodesign, Food Systems Design, Agromaterial Design & etc. The list is not exhaustive and we are always open on exploring newer and more relevant topics for research across design domains.

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Labs and Studios

HFSS Studios (Human Factors and Sociotechnical Systems Studios)

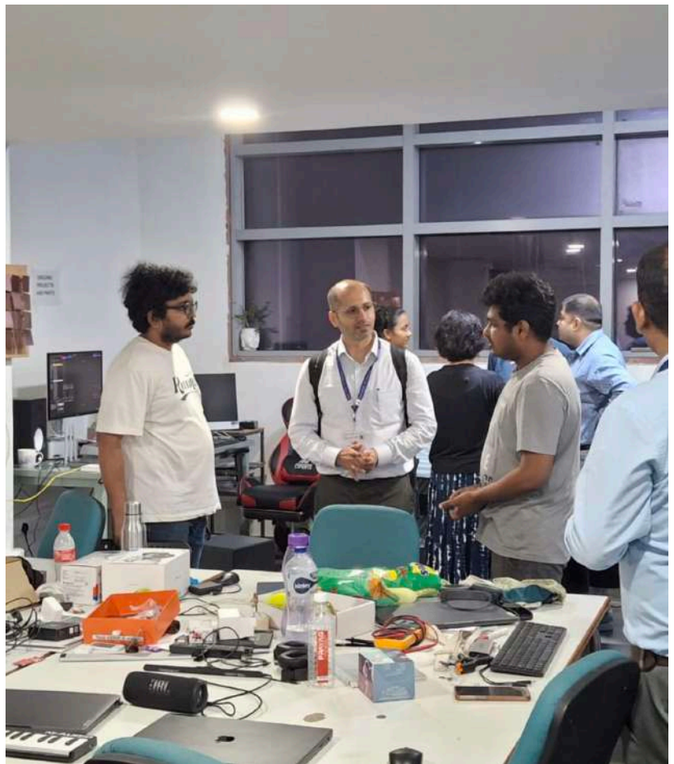
One of the most fundamental challenges in systems design is integrating the human as a part of the overarching system. Our aim, as part of Department of Design, IIT Kanpur, is to incorporate the human as a system component without making it mechanistic in nature. Reciprocally, the founding principle of this studio is to incorporate human factors in complex sociotechnical systems from a holistic viewpoint sustaining the lived experience of the human as well as the designed dimension of the system.

DIC PDP Studio (Design Innovation Center Product Design & Prototyping Studio)

Product Design & Prototyping Studio in the department enable students to explore industrial design, product design and new product development. This studio focuses on domains like consumer products, medical devices, electronics and industrial products. To further complement the Industrial design studies, the studio is supported by prototyping lab, CMF lab, materials lab. These are equipped with state of the art equipment like professional grade 3D printers, CNC and Lazer machines, 3D Scanners, and all possible tools and systems for students to create high fidelity mock-ups and professional prototypes.

KĀRYA – Applied Human Factors and Ergonomics Laboratory

KĀRYA (Sanskrit: कार्य) literally means work, action, purpose, task – core concepts in ergonomics, which studies the 'interaction between people and the work they perform'. KĀRYA – Applied Human Factors and Ergonomics Laboratory engages with translational ergonomics integrating rigorous human factors science with user-centric design-led intervention. KĀRYA laboratory focusses on occupational health of workers/users in informal sector (for e.g. artisans, agricultural workers, construction workers, sanitation workers, workforce in Small and Medium-sized Enterprise (SMEs), etc.). The lab will combine (i) robust field exposure assessment (like anthropometry, posture, motion, noise, vibration, dust, ambient temp., etc), (ii) laboratory validation (controlled biomechanical testing, workstation/tool/prototype evaluation, etc.), and (iii) iterative, low-cost design interventions co-created with users/workers as participatory design approach.



Art & Design Studio

The studio engaged with drawing, graphic experiments and innovative image making to strengthen originality in visualisation. The studio facilitates planographic print making using serigraphy, cyanotype, intaglio and digital media to enhance graphic skill as well as developing individual style of visual expression. The research scholars in this studio focus on the study of design history and theory, design research methods, and visual culture to enrich design research and practice.

HIVE Lab (Harmony, Interaction, and Versatile Exploration Lab)

The HIVE Lab in the Department of Design, IIT Kanpur, provides necessary facility to build a product and enable interaction by human users. It focuses on Human Machine/ Computer Interaction research in the domains of AI, AR/VR/ XR, Robotics, Music, Automotive, New Media and Accessibility. The facility is equipped with SOTA sensors, actuators, trackers and simulators.

TRON

The mechatronics design studio in the department provides the necessary facility to build a product that requires electronic support or mechatronic device. The facility is equipped with SOTA and commercially off-the-shelf sensors, actuators and development boards.

Type.lab

Type.lab is a multilingual type research facility located in the Department of Design at IIT Kanpur. The lab focuses on understanding and addressing challenges in type design, with particular emphasis on Indian scripts, while also examining Latin and other non-Latin typefaces. Its primary goal is to improve readability, legibility, and the overall reading experience across diverse scripts and typographic systems. The lab provides a collaborative environment where researchers and designers study the visual structure of typefaces, reading behaviour, user-based reading studies, experimental typography, as well as font design and engineering challenges, particularly in relation to non-Latin scripts. Through these activities, Type.lab enables systematic investigation of typographic form, reading performance, and script-specific issues such as character complexity, spacing, and typeform consistency. The Type.lab provides a space to identify design challenges and propose (typographic or design) solutions that enhance reading experiences and communication.

SMILE Lab (Smart Manufacturing and Intelligent Learning Systems Lab)

The Smart Manufacturing and Intelligent Learning Systems Lab (SMILE Lab) is at the forefront of pioneering research and innovation in the fields of advanced manufacturing, artificial intelligence, and intelligent learning systems. Our mission is to revolutionize industries by integrating cutting-edge technologies such as machine learning, robotics, and data analytics into manufacturing processes. By bridging the gap between traditional manufacturing and Industry 4.0, we aim to create smarter, more efficient, and sustainable production systems that can adapt to the ever- evolving demands of the global market. At SMILE Lab, we focus on developing intelligent solutions that enhance productivity, optimize resource utilization, and reduce operational costs. Our research areas include predictive maintenance, process optimization, digital twin technology, and human-robot collaboration. By leveraging AI-driven insights and real-time data analysis, we empower industries to make informed decisions, reduce downtime, and enhance overall performance. Through close collaboration with industry partners, academic institutions, and government agencies, we strive to translate our research into practical, scalable solutions that drive the future of smart manufacturing.

Digital Design Studio

Digital Design Studio is a cutting-edge computer lab meticulously designed to foster creativity and innovation in digital design. Equipped with state-of-the-art infrastructure, the studio features high-performance workstations loaded with industry-standard software for graphic design, 3D modelling, animation, and multimedia production. High-resolution displays and advanced graphic cards ensure that designers can visualize their projects with precision and clarity. The lab also includes collaborative spaces for brainstorming and teamwork, allowing students and professionals to share ideas and refine their designs in real-time. Specialized tools, such as drawing tablets and virtual reality equipment, enhance the creative process, enabling users to experiment with various design techniques and technologies. With a focus on both education and professional development, Digital Design Studio serves as a hub for workshops, seminars, and hands-on training, empowering individuals to hone their skills and push the boundaries of digital creativity in an ever-evolving industry.

Media Technology Centre

Media Technology Centre boasts state-of-the-art infrastructure designed to empower students in exploring the creative potential of filmmaking. Equipped with advanced cameras, editing suites, and sound studios, it provides an immersive environment for hands-on learning and experimentation. Students can engage in various aspects of production, from scripting to post-production, fostering a comprehensive understanding of the filmmaking process. In addition to its educational initiatives, the centre actively engages with content creation for e- learning projects of national importance, utilizing its resources to enhance digital literacy and accessibility. This dual focus not only cultivates filmmaking talent but also contributes to broader societal and educational goals.

Design for Emerging Interactions

Design for Emerging Interactions (DEI) offers an academic design space aimed at learning and applying design knowledge across human-centered and technology-mediated contexts. The space is organized as a studio space with focus on (i) learning design as a fundamental professional trait for interactive and smart media, and (ii) conducting research through design on novel themes of relevance. It enables easy access to diverse range of resources to help students design interventions across a range of domains –interaction design and content representation for children with specific needs, voice user interactions and interactions with smart agents, interfaces for older adults enabling them to achieve different goals, public facing interfaces and interfaces for specific contexts like electric vehicle driving. It continues to be a space where design contexts and problems shape the formulation of technology-based interventions for larger good.

Agro-Bio-Design Lab

Areas of Specialization: Agro-Ecological Design, Agricultural Materials for Energy Devices At the Agro-Bio-Design Lab, we passionately explore the profound design principles of natural systems to develop innovative and energetically harmonious solutions. By leveraging these principles, we produce exceptional products from agricultural materials while promoting sustainable practices in agro-ecological systems. Together, we are paving the way for a brighter, greener future. We invite you to join us in our mission to revolutionize agriculture through thoughtful design!

Nature Biodesign Lab

The Nature Biodesign lab is working on agroecosystem design for food-fodder-fiber security under the following key themes: (i) Sustainable food production systems design, (ii) Agromaterial design using living systems as bio-robots, (iii) Agricultural anthropology to understand the evolution of agroecosystems and the agrarian communities that sustain them.

MoM Studio (Meaning over Medium)

MoM: Meaning over Medium is a studio-lab dedicated to exploring the relationship between cultural meaning and visual communication. The lab investigates how symbols, metaphors, narratives, and visual traditions shape communication across media. Combining research, design practice, and experimental prototyping, MoM engages with graphic design, motion design, spatial media, and cultural documentation to study how meaning is constructed and communicated visually. The studio encourages students and researchers to move beyond the constraints of specific tools or technologies and instead focus on the cultural, conceptual, and symbolic dimensions of visual communication.

HEL (Happy Earth Lab)

Happy Earth Lab (HEL) is an interdisciplinary design lab working at the intersection of sustainability, community systems, and inclusive development. The lab explores design-led approaches to support community-level transitions toward environmentally responsible and resilient ways of living. HEL focuses on understanding pathways to Net Zero communities while integrating economic thinking with sustainable design. Its work emphasizes inclusive models that benefit underserved and vulnerable sections of society. The lab aims to contribute to building a more sustainable, equitable, and happier Earth for all.

Student’s life on campus

Student life at IIT Kanpur offers a unique blend of academic excellence, creativity and vibrant campus culture. As a design student, the experience goes beyond classrooms and workshops, combining studio-based learning, creative exploration and hands-on projects that emphasize user-centered thinking, visual communication and innovative problem solving. Students collaborate across disciplines, working with peers from engineering, management and humanities to develop impactful ideas and prototypes. The dynamic campus environment further enriches this journey through active participation in clubs, and major festivals such as Antaragni, Udghosh and Techkriti, where creativity, sports and technology come together on a national platform. With vibrant hostel life, late-night brainstorming sessions and a strong sense of community, IIT Kanpur provides design students with a stimulating space to learn, collaborate and transform ideas into meaningful innovations.

Faculty Members

Dr. Gowdham Prabhakar PG
Assistant Professor

Ph.D (IISc Bangalore)

Human Computer Interaction (HCI), Robotics, Music Technology.

Dr. Ashish Kumar Singh
Assistant Professor

Ph.D (MNIT Jaipur)

Human Factors and Ergonomics, Occupational Health and Safety, Product design.

Dr. Himanshi Jangir
Assistant Professor

Ph.D (IIT Kanpur)

Agroecosystem Design, Food Systems Design, Agromaterial Design using Biorobots, Agricultural Anthropology, Social Agrodesign.

Dr. Nilutpal Borgohain
Assistant Professor

Ph.D (IIT Guwahati)

Visual Communication Design, Cultural Semiotics, Visual Culture, Conceptual Metaphors in Design, Motion Design, Visual Ethnography.

Dr. Amar Kumar Behera
Associate Professor

Ph.D (KU Leuven)

Product design, Internet of Things (IoT), Industry 4.0, Engineering informatics, Multirobot systems, Smart manufacturing, Flexible sheet metal forming, Bio-medical devices, Complex engineered systems.

Dr. Vivek Kant
Associate Professor

Ph.D. (University of Waterloo)

Human Machine Interaction, Human Factors, Human Systems Integration, System Design, Strategic Design, Speculative Design.

Dr. Shatarupa Roy
Associate Professor

Ph.D (IIT Guwahati)

History and Theory of Art and Design, Visual Communication, Visual Culture, Graphic Art, Research Methods, New Materialism, Folk Art and Craft.

Dr. Mainak Das
Professor

Ph.D (University of Central Florida)

Bio Design & Biomimetic.

Dr. Satyaki Roy
Professor, Head, Department of Design

Ph.D (Visva Bharati University)

Communication Design, Films and Media.

Dr. J Ramkumar
Professor

Ph.D (IIT Madras)

Micro/Nano Manufacturing and New product/process development, Tribology, composite, Manufacturing Process modelling, Medical Device Development.

Dr. Rajeev Jindal
Professor of Practice

Ph.D (IIT Delhi)
Entrepreneurship, Sustainability, Innovation through design.

Prof. Girish Ishwar Lone
Professor of Practice

Product Design, Design strategy, Technology Integration, Stakeholder management, Innovation management.

Adjunct Faculty

Dr. Jhumkee Sengupta Iyengar

User Experience Design.

Dr. Avinash Shende

Industrial Design.

Dr. D. Udaya Kumar

Graphic Design, Typography, Type Design, Information Graphics, Motion Graphics, Design Research, Exhibition Design, Architecture.

Dr. Sreekumar GV

Visual Design, Typography, Publication Design, Magazine Design, Information Graphics.

Dr. Sugandh Malhotra

Design for future, Design for marginal societies, Sustainable design, Bio-inspired design, Mobility design.

Dr. Nishant Sharma

Automotive Design, Vehicle Design Process, Product Form and Aesthetics, Participatory Innovation.

Mr. Sandip Paul

Industrial Design.

Ms. Saloni Borar

User Experience & Product Design.

Mr. Prantik Banerjee

Industrial Design, User Experience.

Dr. Ashutosh Khanna

Strategic Management, Strategic Innovation.

Ms. Suhasini Paul

Toy design & Development , Logo and Identity Design, Character Design, Packaging Design.

Mr. Sudhir Sharma

Brand Design, Design Thinking, Communication Design.

Contact

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Design Office

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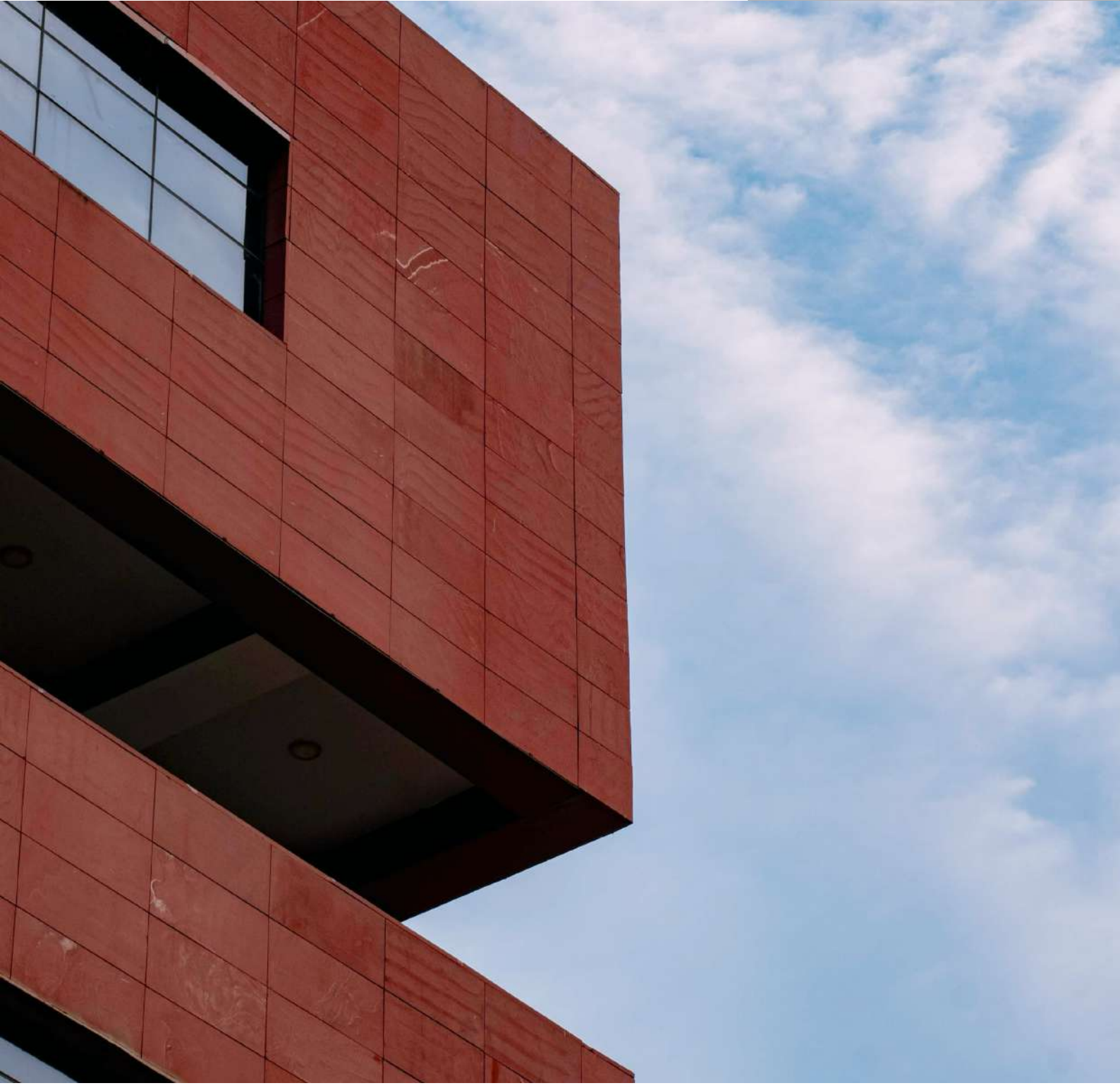

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