



Centre for Product Design and
Manufacturing

Indian Institute of Science



PD '24

Placement
Brochure

Message from the Chairman.

01

Prof. Amaresh Chakrabarti

Since the initiation of the prestigious MDes Programme in Product Design and Engineering in 1997, and the birth of the CPDM department a year later, faculty and staff of CPDM have been consistently working towards producing professionals in designing technologically challenging products and manufacturing systems that are functional, aesthetic, usable, sustainable and socially impactful; Creating leaders who can strengthen existing practice and develop new practice in the areas of design and manufacturing; Developing knowledge, including methods and tools; And to inform and empower practice and education of design and manufacturing.

CPDM has been graced by some of the most accomplished faculty members of the country, who are pioneering researchers in their areas of research that span creativity, ergonomics, sustainability, human machine interaction, systems integration, medical devices, simulation, materials, manufacturing, robotics, augmented reality, sensors, analytics, and so on. The activities at CPDM is supported by latest equipment and state of the art laboratories including IISc Smart Factory that supported by highly experienced members of staff. They, along with students of CPDM have won coveted awards such as Best Paper Award (47th WWRF Meeting 2022), Lexus Design Award 2022, James Dyson Award 2021, and Abdul Kalam Technology Innovation National Fellowship 2021. Five of the faculty members of CPDM are enlisted among top 2% researchers in the world, according to Stanford University Study published in PLOS, 2021.



Who are we?

CPDM at IISc

The Centre for Product Design and Manufacturing (CPDM), the design and manufacturing face of IISc, is among the most research and technology intensive design and manufacturing schools in India, steeped in the ambience of the Indian Institute of Science (IISc), Bangalore.

CPDM is among very few schools in India that train students in developing and making systemically-complex, technologically-intensive, and socially-impactful solutions that are functional, aesthetic, usable and sustainable. It is among the top design schools in the world that specialise in development of hardware products and manufacturing systems, and has been among the best in research into design, ranking alongside design schools and research centres in Stanford, Delft, Cambridge and CMU. Based on the number of design researchers in top 2%, IISc is 8th in the world and 1st in Asia in Design Research.

“IISc Bengaluru is the **No. 1** ranking institute in India’s NIRF university and research rankings. It is also the global leader in the Citations per Faculty (CpF) index.”

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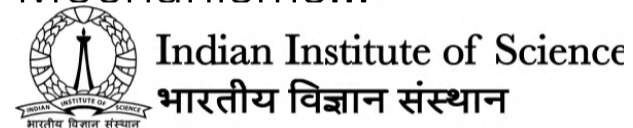
Amaresh Chakrabarti

Design Synthesis and Creativity, Eco-Design and Sustainability, AI and Data Analytics, Product Informatics, Smart Manufacturing, Biomedical Devices, Sensors/Actuators



Dibakar Sen

Geometric & Topological Modeling, Digital Human Modeling & Posturing, Geometric & Functional Vision Modeling, Natural Behaviour & Grasp Modeling, Kinematic Assembly Modeling, Deployable Antenna Mechanisms, Underactuated & Spring Actuated Mechanisms...



B. Gurumoorthy

CAD, Product Informatics, Computational Metrology, Computer Aided Prototyping



Pradipta Biswas

Human-Computer Interaction, User Modelling, Multimodal Interaction, Intelligent Interaction



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The Faculty.



Anindya Deb

Vehicle Crashworthiness and Occupant Safety, Pedestrian Safety, Impact Modeling and Testing, Behavior of Lightweight Materials under Impact Loading, Design of Automotive Systems.



Vishal Singh

Built Environment (BE) and construction management, Design and design management, Innovation and innovation management



Abhijit Biswas

Core Engineering Area (Electronics and Instrumentation), Interdisciplinary Engineering Area, Basic Science Area (Physiology and Psychology)



Manish Arora

Biomedical Devices, Co-Design, Collaboration and Open-Source in Design



N.D. Shivkumar

Polymer based composites, Bio-Composites, Synthesis/Manufacturing of lightweight materials, Computer Aided Design & Analysis of lightweight materials, Optimization & DOE based studies, Design and Application of developed/Novel lightweight materials.



Rina Maiti

Human Factors Engineering, Biomechanics, Product Design, Medical Engineering, Rehabilitation engineering...



Abhra Roy Chaudhary

Robotics & Automation, Collaborative Mobile Robots (Aerial/Terrestrial/Marine), Human-Robot Collaboration, Mechatronics, Bioinspiration & Biomimetics





Anmol Luharuka

Arun Lakra

Dibakar Paul

Dwarkaprasad Mahale

Eesha



Gopal Kumar Arya

Hunny Bidlan

Rohit C.K.

Sanika Bhide

Shailesh Sutar



Shashank Mishra

Vaishnavi Patil

Vibhor Gupta

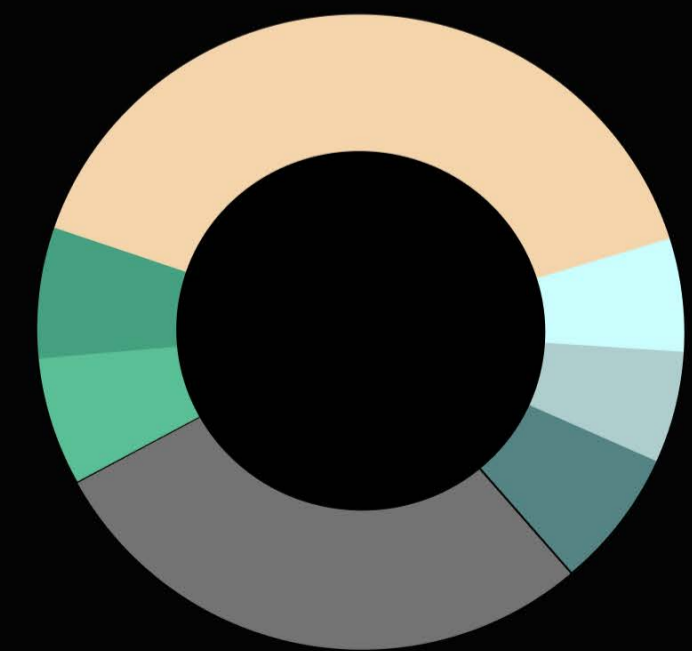
Vikash Kishore

Viren Talreja

Batch of 2022-24

The Batch of 2022-2024 is CPDM's Silver Jubilee Batch. It consists of 15 students from varied backgrounds of engineering and architecture.

Demographics



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Mechanical

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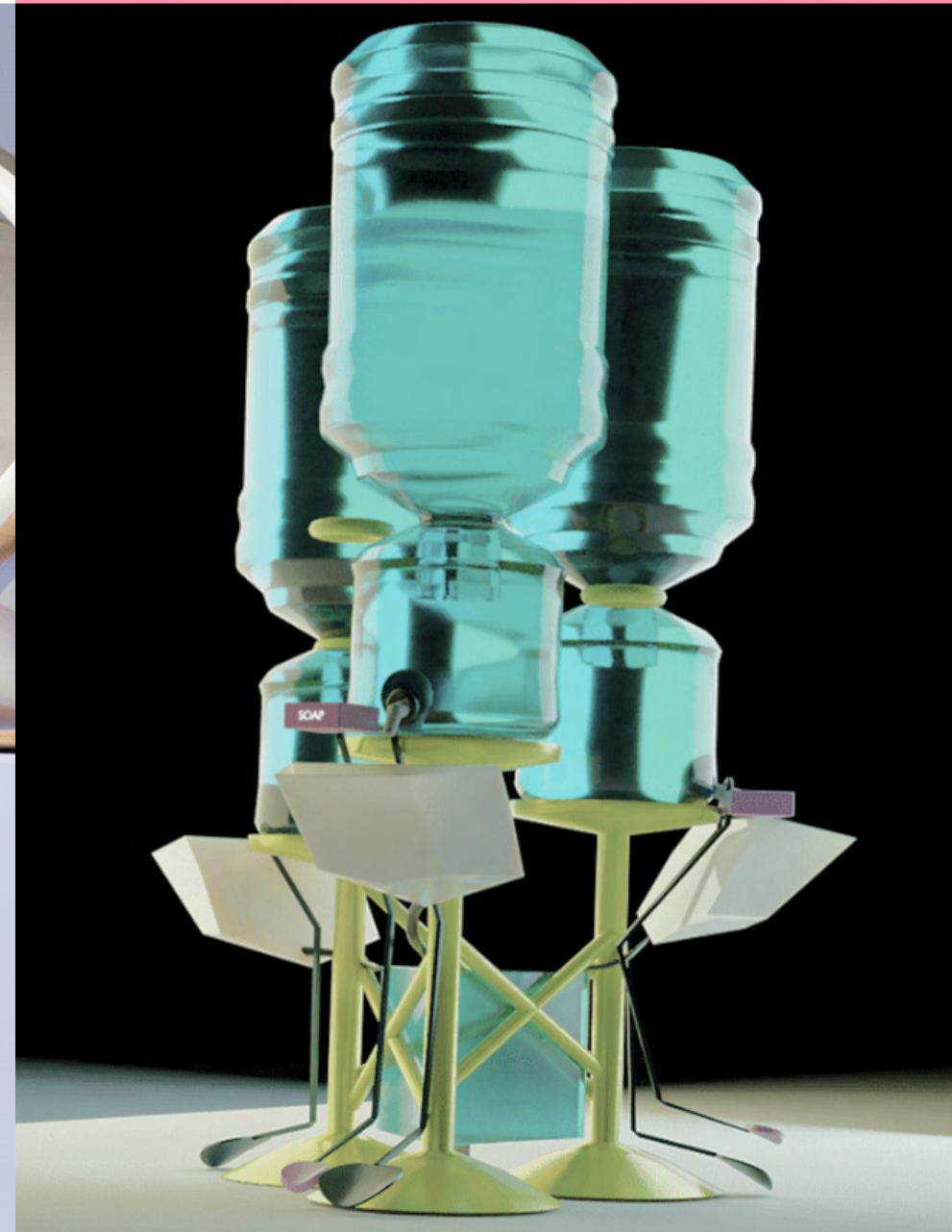
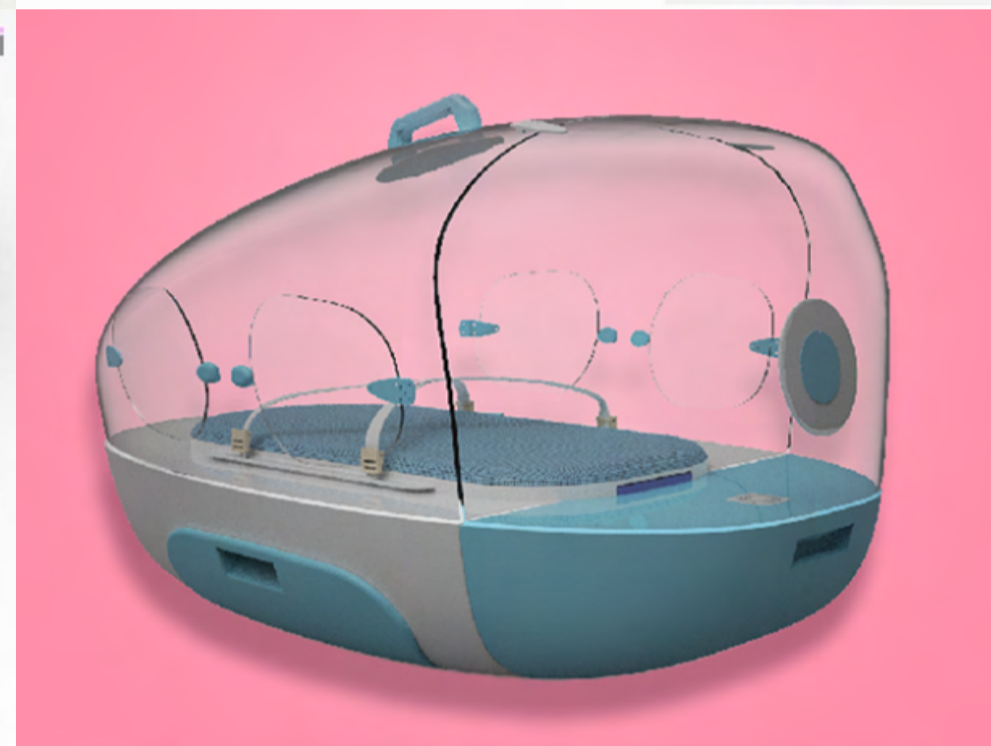
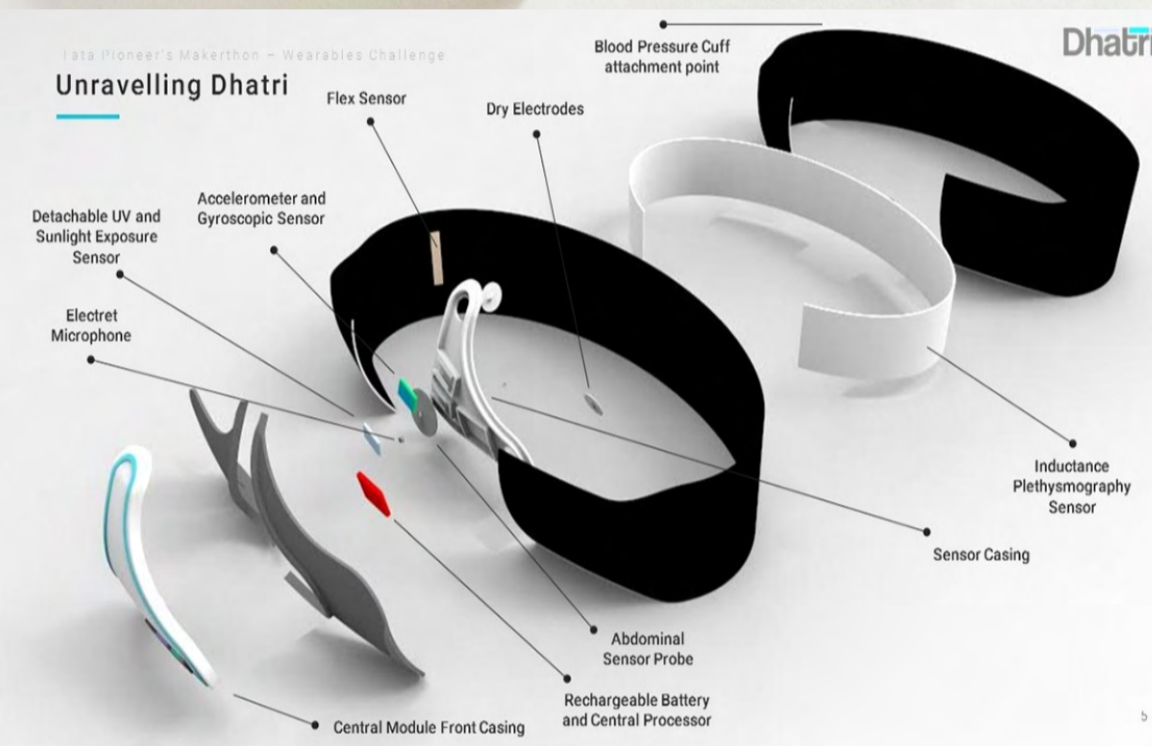
Architects

01

Design, Civil, Electronics, Electrical, Chemical



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Our Works.

25 years of excellence in design

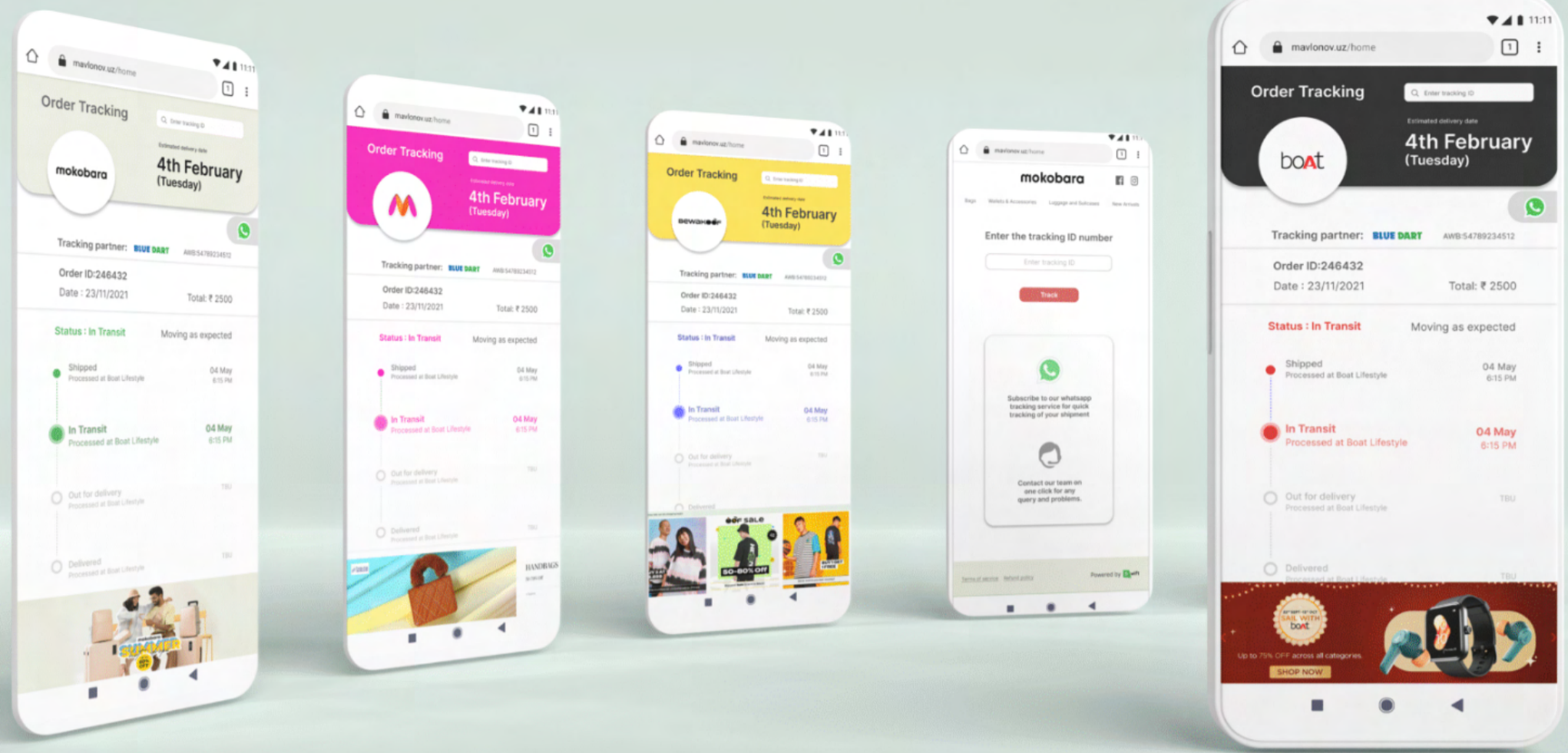
From acing in numerous national & international competitions to producing physical and digital products, CPDM has helped its students explore and navigate through different aspects of design which resulted in some of our best works.



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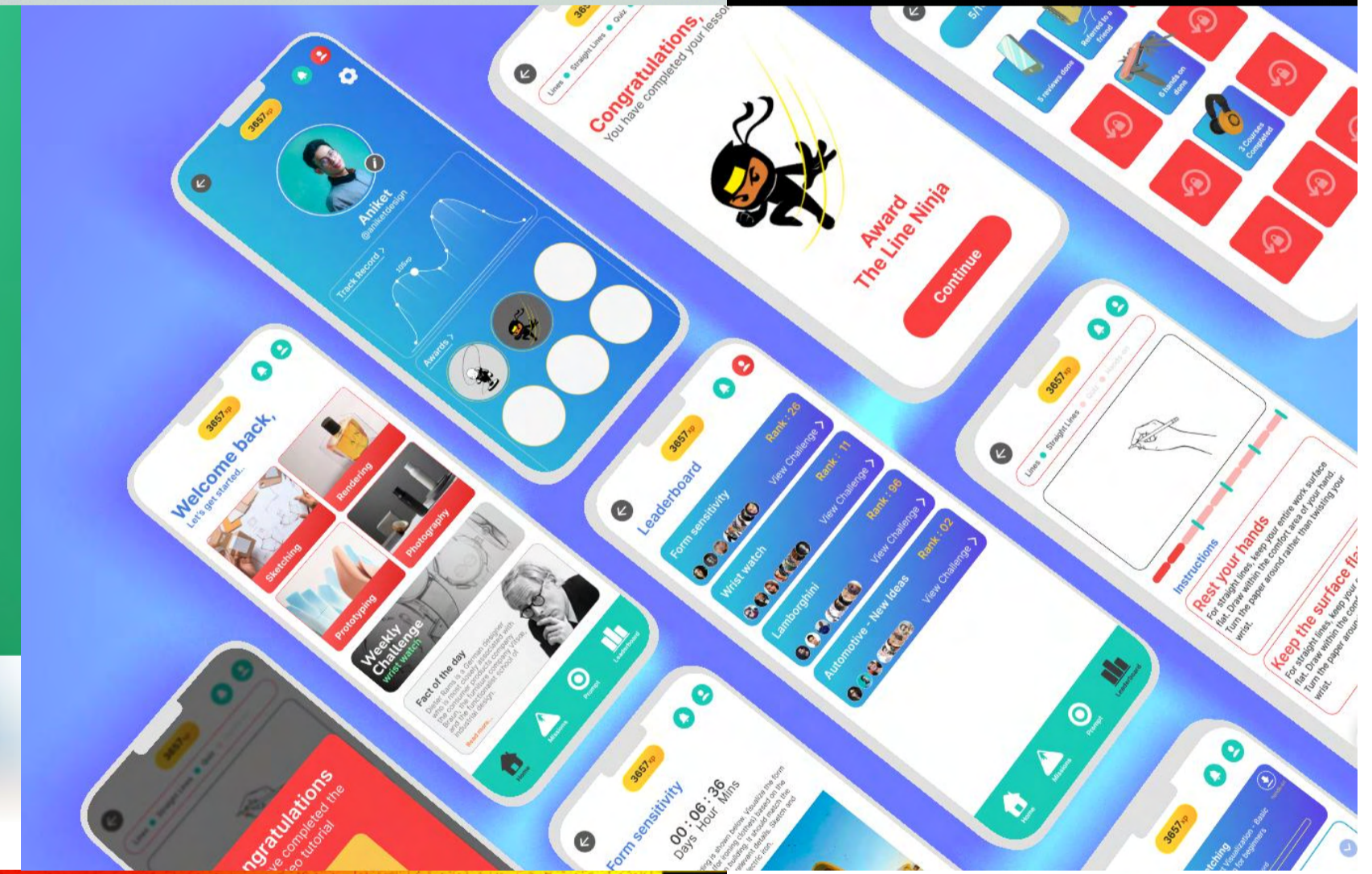
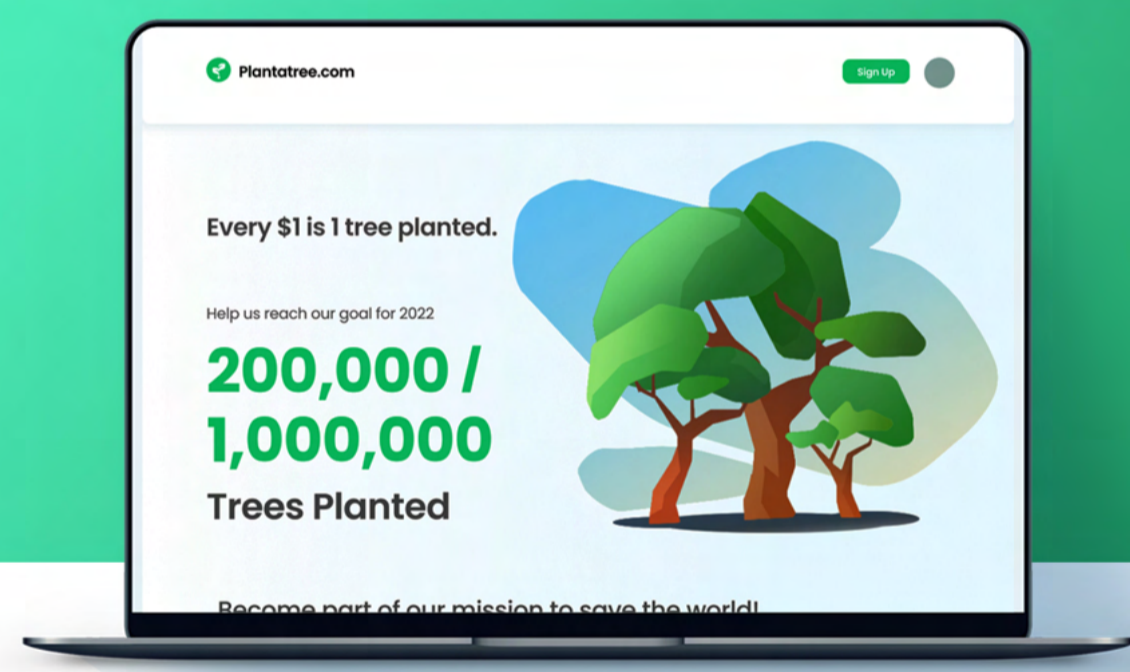


CPDM students have actively worked on various projects in diverse design fields, both on individual and group levels. The projects have varied from the redesign of products to the innovation of new ones. The highlights of our projects are extensive user research and high concept to patent conversion.



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Plantatree.com UX / UI Case Study



Unlock Movement

Movement
 Movement is the way a person sees, moves, and acts. It is not just about the body, but also about the mind and the emotions. It is the way we think, feel, and act. It is the way we move through the world.



Collect Red, Blue and Yellow wisps to restore colour to Bhoom



CPDM students develop a solid foundation in design principles, which they can apply to various design fields. As a result, we are capable of producing a variety of digital products as well.

Curriculum & Expertise.

Our M.Des curriculum in advanced design and engineering, spans the areas of Design Theory and Methodology, Product Lifecycle Management, Human Factors in Design, User Interface Design, Vehicle Design, Technology Integration, Sustainability etc., with major applications in Automotive, Aerospace and Biomedical sectors.

Our courses vary from Creative Engineering Design focusing on product design starting from habitat study to ideations using tools like TRIZ, Synectics etc; Embodiment Design, Mechatronics, Mechanism Design to teach prototyping the designs as physical products; courses like Human Computer Interaction and Robotics include the use of computation and AI; and New Product Development helps project designs to transcend as viable market products.

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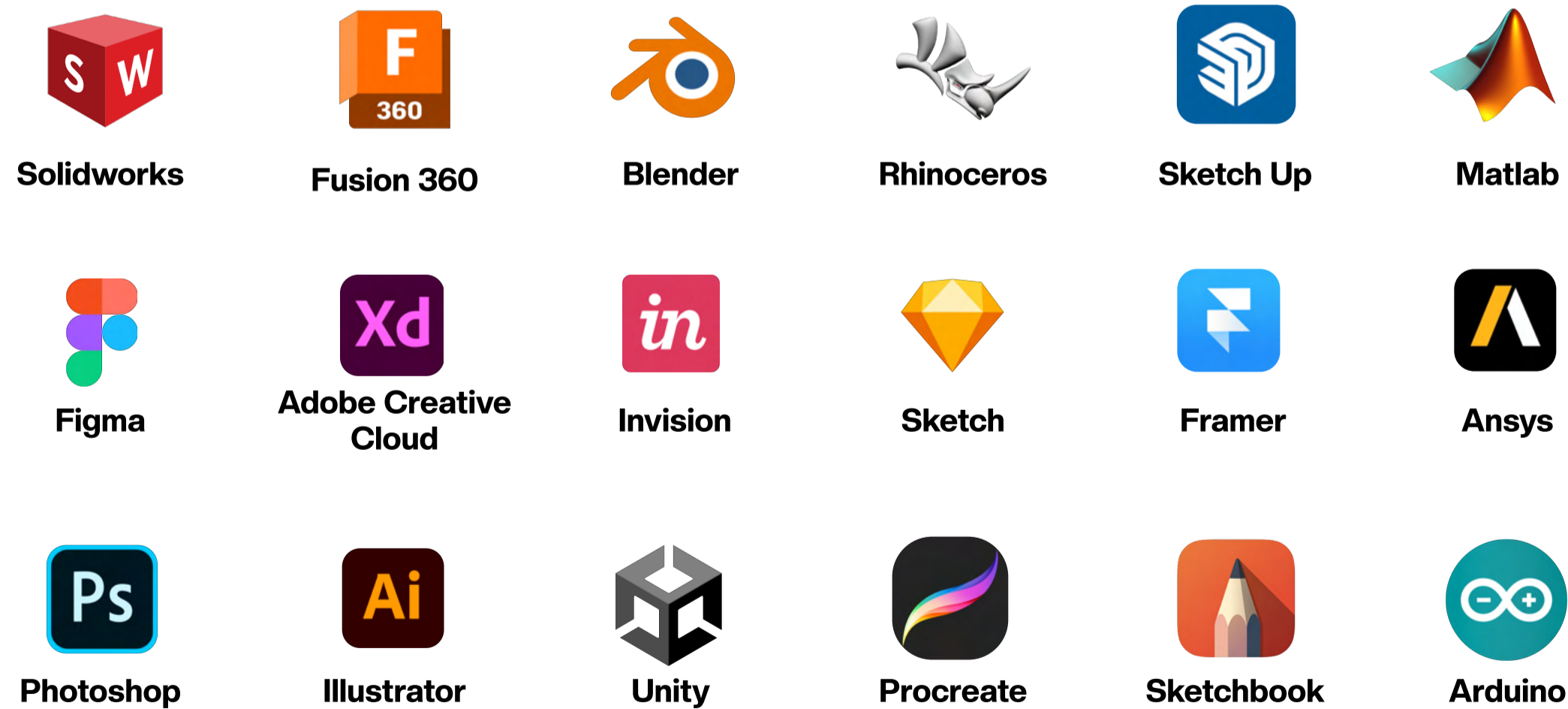
The diverse courses and projects help students build several skills, with our expertise lying in:

ERGONOMIC DESIGN
PRODUCT MANAGEMENT DESIGN ENGINEERING
USER RESEARCH
COMMUNICATION DESIGN
INDUSTRIAL DESIGN
PRODUCT VISUALIZATION **UI/UX DESIGN**
MOBILITY & VEHICLE DESIGN
PRODUCT DESIGN INTERACTION DESIGN
DESIGN RESEARCH
PRODUCT PLANNING
PROTOTYPING
PRODUCT STRATEGY

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NEW PRODUCT DEVELOPMENT
3D MODELING USER RESEARCH
PRESENTATION SKILLS
PRODUCT SKETCHING
UX DESIGN VISUALISATION SKILLS
PROTOTYPING
CONFLICT RESOLUTION
PITCHING SKILLS
ANALYTICS **TRIZ**

CPDM students are unique because we develop skills not only in design thinking and user research but also in analytical thinking, new product development and management, and ergonomic evaluation, giving us a good entrepreneurial edge. We are also experts in skills such as 3D modeling, sketching, presentation, and pitching. Moreover, our courses and projects are structured in such a way that students become proficient in using multiple software and tools used in designing, ranging from SolidWorks, Fusion 360, Blender for 3D modeling and rendering to Illustrator and Figma for graphic designing.



Skillset.

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Facilities.

Research labs

IDEAS Lab	Innovation design study & sustainability
UTSAAH Lab	Universal technology solutions for accessible & affordable healthcare
CAR Lab	Creative automotive research
HER Lab	Human engineering research
SCALE Lab	Computerised anthropometry & ergonomics simulation
I4I Lab	Impact4Impact Lab
RIMM Lab	Research in Materials and Manufacturing





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Facilities.

Research labs

Su-Desi Lab	Sustainability by design
PLM Lab	Product lifecycle management
VR Lab	Virtual Reality
I3D Lab	Intelligent Inclusive Interactive design
RI Lab	Robotics innovation
InSPIRE Lab	Innovation synthesis and prototyping for interdisciplinary research and engineering



Events & Awards

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The students participate in numerous activities like talks and conferences by notable personalities. Organisations like UNICEF, TATA Elxsi and ISRO visit our labs for their projects. Regular workshops are conducted on prototyping, modeling, and building software skills. Our flagship events Ripples happen annually where the department showcases their project works and designs.

CPDM faculty in Global Top 2%
The top 3 of the 5 high impact researchers enlisted from India in 'Design practice & Management' are from the core and associate faculty of CPDM, IISc Bangalore.



ICoRD'23

9th International Conference on Research into Design

9-11 Jan'23 at IISc, Bangalore



Silver Jubilee Celebrations

Monthly event celebrating

25 years of CPDM, started from 7 March 2022

Workshops

SmartX Health Hackathon

Brunel-IISc Seminar Series

Research Presentation Day

UI/UX Workshop

Toycathon

BARN (Benchmark Autonomous Robot Navigation) Challenge ICRA USA 2022

Reimagine Waste Hackathon



Ripples

Annual event showcasing the products and projects undertaken at CPDM

Awards

Lexus Design Award 2022 | LifeBox by Deval Karia

Abdul Kalam National Technology Innovation Fellowship 2021 | Prof. Dibakar Sen for PURAK

James Dyson Design Award 2021 | National winner | LifeBox is an active heart preservation container for extending out-of-body viable time during transport for transplant.

Facebook Award | Dr. Pradipta Biswas and Prof. Yogesh Simmhan for proposal on Privacy-respecting AR/VR to Enable Differently Abled in Multi-Cultural Societies.

W2W IEEE Award 2021 | International winner | Meraki, a device for the treatment of urinary incontinence in women, by Komal Shah

ICCAS Conference 2020 Busan, S. Korea | Student best Paper Award Finalist | Paper: Vision-based Object Sorting using Deep Learning for Inventory Tracking in Automated Warehouse Environment.

MILCAA Award 2020



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CPDM's M.Des program has harboured more than 100 students from all the country who have made their mark nationally and internationally in their respective fields since the first batch in 1997. Our alumni have been winning awards in various areas making CPDM proud. Here are some of the many notable alumni with their remarkable achievements.

Notable Alumni

Saurabh Singh
Head of Design Studio
Maruti Suzuki, Gurgaon

Shilpa Marathe
Design Lead, Watson IoT
Industry Lab, IBM, Munich

Yogendra Solanki
Associate Design Director
IBM iX, Gurgaon

Suman Devadula
Head, School of Design, MIT
World Peace University, Pune

Apoorv Shankar
VP, Hardware at
Ultrahuman, Bangalore

Unmesh Patki
Senior User Experience
Architect, Infosys, USA

Srinidhi A.V.
AGM- Design
VIP Industries, Mumbai

Shanavas M.S.
Creative Director at TEQZO
Founder of Gemklip, Bangalore

Guruprasad Rao
Director & Mentor
Imaginarium, Mumbai

Mona Sharma
Head of Product Design, Bempu
Health, TIMEs top 25 inventions

Pulin M Raje
Associate Design Director
McKinsey & Company, New Delhi

Priyanka Pundhir
UX Researcher Lead, Google
Pay, Google, Singapore

Amit Singh
Principal Group UX Manager
Microsoft, Hyderabad

Dhruv Saxena
Co-Founder & Designer
Obvious, Bangalore

Debrup Sanyal
Lead Designer, Design
Mahindra & Mahindra, Mumbai

Prasanna Gadkari
Experience Design Professional
Amazon, Canada

Jaspreet Singh
Lead Designer
Tata Motors, Pune

Shaurya Rawat
Founder, UX Designer
The Geek's Lab, Delhi

Shamit Shrivastav
Program Director, Strategic Design
Management, ISDI, Mumbai

Rachna Tiwary
Sr. User Researcher
PayPal, Sunnyvale

Arunkumar Francis
Sr. Motorcycle Design Lead,
Bajaj Auto, Pune

Anas K. A.
Head of Design at designLAB
TCS Interactive, Kochi

Nitin Gupta
Founder, Product Designer
Sickle Innovations, Ahmedabad

Vinay Reddy
CoFounder, Product Designer
Sickle Innovations, Ahmedabad

Ami Sampat
Lead of Design, Alexa
Amazon India

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Alumni Footprint



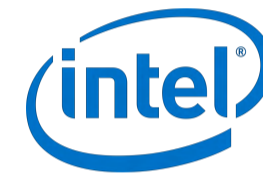
PHILIPS

3M

SIEMENS



HCL



Mercedes-Benz



JOHN DEERE



BOSCH



TVS



Mahindra



Flipkart



SUZUKI



TCS TATA CONSULTANCY SERVICES

Infosys



wipro



MARUTI SUZUKI



Google



AUTODESK



ASHOK LEYLAND



PayPal



SAP

McKinsey & Company



SAMSUNG



Godrej



SAINT-GOBAIN

amazon



Mindtree



ROLLS ROYCE

Honeywell



MathWorks



bp

Contact Us

Visit the following link to understand the IISc Recruitment Process through its placement cell body, the Office of Career Counselling and Placement (OCCaP)

<https://occap.iisc.ac.in/index.php/placement-procedure/>

For placement queries, write at

placement.occap@iisc.ac.in OR occap.iisc@gmail.com

To participate in full time/internship, please share details in this Recruiter Registration Form

https://docs.google.com/forms/d/e/1FAIpQLSffcXb7Kp0TknaeUS2JMD86NZVINLK3b8Bg_gueoRhECUgqUnA/viewform

Placement coordinator, IISc

Ms. Jayanti Mahadevappa Belur

Placement Officer

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✉ <https://occap.iisc.ac.in/>

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