

# DR. SATVASHEEL RAMESH POWAR

FIMA Applicant | Associate Professor & Dean Finance, IIT Mandi | Founder, WattCycle  
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## EXECUTIVE PROFILE

Dr. Satvasheel Powar is a senior academic leader, institution-builder, and technology entrepreneur with over two decades of strategic leadership across seven countries. He serves as Dean, Finance & Accounts at IIT Mandi, stewarding an institutional budget of ₹600 crore, and is Founder of WattCycle Sustainable Solutions — India's first pilot-scale photovoltaic recycling initiative — backed by a ₹10 crore CSR grant from GIC Re.

His career trajectory reflects an uncommon convergence of research excellence, institutional governance, financial oversight, technology commercialisation, and national policy engagement. He has built and led multi-crore institutional systems, scaled IIT Mandi's IP portfolio from 5 to 101 granted patents, raised over ₹32 crore in grants as incubator director, and contributes to national clean energy and ESG discourse as an NDTV Profit commentator and government-invited Technical Expert.

He is empanelled on the MCA Independent Director Databank (Lifetime), a Member of the Institute of Directors India (M.IoD, Lifetime), an ISES Gold Member (Lifetime), and enrolled in the IICA ESG Professional Impact Leader programme (Batch V, 2026). He is a Stanford Ignite Fellow (Stanford GSB) and a BASE Fellow (Indo-US Science & Technology Forum).

## GOVERNANCE & PROFESSIONAL CREDENTIALS

|  |   |
|--|---|
| M.IoD — Member, Institute of Directors India (Lifetime)              | MCA Independent Director Databank — Lifetime (Reg. IDDB-DI-202507-076001) |
| ISES Gold Member — Lifetime (International Solar Energy Society)     | IICA ESG Professional Impact Leader — Batch V (2026, Ongoing)             |
| Stanford Ignite Fellow — Stanford Graduate School of Business (2011) | BASE Fellow — Indo-US Science & Technology Forum                          |

## LEADERSHIP IMPACT AT A GLANCE

|  |   |  |  |
|--|---|--|--|
| <b>₹600 Cr+</b><br>Institutional Budget (Dean Finance) | <b>₹10 Cr</b><br>WattCycle CSR Grant (GIC Re) | <b>101</b><br>Granted Patents Pipeline Built | <b>₹32 Cr+</b><br>Grants Raised (Incubator Director)         |
| <b>53+</b><br>Peer-Reviewed Papers (2,800+ Citations)  | <b>7</b><br>Countries — Global R&D Career     | <b>20+</b><br>Years Strategic Leadership     | <b>₹25 Cr+</b><br>Investor Transactions (IIT Mandi Catalyst) |

## PROFESSIONAL EXPERIENCE — MANAGEMENT & LEADERSHIP

### Dean, Finance & Accounts | IIT Mandi

March 2025 – Present

- Stewardship of ₹600 crore institutional budget across research, operations, infrastructure and grants
- Financial governance and audit readiness for a Category-I Institute of National Importance

- Strategic oversight of multi-source funding: Govt grants, industry partnerships, CSR, and international collaborations
- Policy formulation for procurement, asset management, and financial compliance aligned with MoE and UGC frameworks

### **Director, IIT Mandi Catalyst (DPIIT-recognised Incubator) | IIT Mandi**

*October 2023 – May 2025*

- Raised ~₹32 crore in competitive grants including TIDE 2.0, NidhiAIM, and BIRAC
- Enabled investor transactions exceeding ₹25 crore; portfolio valuation grew to ₹32 crore
- Grew incubated startup count by 20%; launched first India–Australia international programme
- Governed a board of advisors comprising industry professionals, angel investors and academic leaders

### **Associate Dean, Sponsored Research & Industrial Consultancy (SRIC) | IIT Mandi**

*April 2023 – April 2025*

- Scaled IP filings from 18 to 161 and granted patents from 5 to 101 in under two years
- Established structured technology transfer and commercialisation framework
- Negotiated and formalised industry partnerships across clean energy, manufacturing, and healthcare

### **Coordinator, IPR & Technology Transfer | IIT Mandi**

*2019 – 2023*

- Designed and implemented IIT Mandi's first IP policy and commercialisation roadmap
- Managed patent prosecution across Indian and PCT applications; supported licensing negotiations
- Built internal IP awareness programs for faculty and students

### **Associate Professor (Full-time) | IIT Mandi**

*July 2022 – Present*

- Teaching: Personal Finance & Portfolio Management; Emerging Energy Sources; Entrepreneurship
- Research areas: Solar PV, agrivoltaics, circular economy, thermal storage, advanced manufacturing
- Graduated 5 PhDs and supervised 14+ M.Tech dissertations
- Received teaching feedback of 4.1/5 across ~2,500 students

### **Assistant Professor (Full-time) | IIT Mandi**

*June 2015 – July 2022*

- Established Energy Engineering Laboratory; initiated solar circular economy research programme
- Taught core courses in thermodynamics, energy conversion, and renewable energy
- Secured multiple sponsored research grants from DST, MNRE, and industry

### **Associate Professor (Docent) | Dalarna University, Sweden**

*June 2022 – July 2024*

- Program Director, M.Sc. Solar Energy Engineering — international postgraduate programme
- EU Erasmus+ Project Coordinator — PV-iTeach (€249,875): built online PV teaching platform across European partner universities
- Supervised 6 M.Sc. theses; Course lead for Applied Solar Technology and Solar Thermal Power

### **Project Manager / Research Fellow | Nanyang Technological University, Singapore**

*November 2012 – May 2015*

- Led SGD 800,000 industry R&D grant on perovskite solar cell scale-up with Dyesol (Australia)
- Integrated perovskite module with Li-ion storage for Printed Power — NTU spinoff
- Managed multi-disciplinary team across materials science, electrical engineering and business development

### **Product Development Engineer | G24 Innovations (G24i), Cardiff, UK**

*July 2007 – December 2008*

- Built and managed DSC fabrication laboratory from ground up; drove materials optimisation and QA standards
- Drove technology transfer from lab to pilot-scale production; prototyped solar-powered consumer products

### **Research Technologist | Greatcell Solar S.A., Lausanne, Switzerland**

*October 2005 – June 2007*

- Developed advanced DSC components — semiconductors, dyes and redox mediators — under Prof. Michael Graetzel's group

## ENTREPRENEURSHIP & INNOVATION

### Founder & Principal Investigator | WattCycle Sustainable Solutions Pvt. Ltd.

June 2025 – Present

- India's first pilot-scale photovoltaic recycling initiative — DPIIT-recognised deeptech startup
- Awarded ₹10 crore CSR grant from GIC Re (General Insurance Corporation of India) — largest CSR grant for PV recycling in India
- Addresses India's ~600,000 tonne end-of-life solar panel waste challenge through advanced materials recovery
- Builds on 8 years of peer-reviewed LCA research and direct policy dialogue with MNRE and NSEFI
- 13 granted Indian patents; ESG-aligned circular economy business model with board-ready governance structure

### Co-Founder | GR Energy Solutions, Kolhapur

January 2009 – June 2009

- Early-stage clean energy solutions venture — foundational entrepreneurial experience

## NATIONAL POLICY ENGAGEMENT & PUBLIC LEADERSHIP

- Technical Expert — Ministry of MSME, Government of India (March 2026): Invited for green transition, carbon credits, and sustainable manufacturing policy
- Speaker — India-AI Impact Summit 2026, Bharat Mandapam, New Delhi (February 2026): AI in clean energy and ESG governance
- Speaker — TERI World Sustainable Development Summit (WSDS) 2026, MoEFCC/TERI (February 2026): Solar circular economy and ESG
- Speaker — TERI WSDS 2024: Agrivoltaics and sustainable land use for food-energy nexus
- Speaker — PanIT Europe Global 2024: Clean energy entrepreneurship and IP commercialisation
- NDTV Profit Contributor — Regular expert commentary on ESG governance, clean energy policy, and carbon border adjustment mechanisms
- MNRE & NSEFI Engagement — Policy dialogue on India's solar circular economy regulatory framework
- India Today (August 2023), Economic Times Energy (August 2023), NDTV Education (August 2022) — media features

## EDUCATION

|             |  |                              |
|-------------|--|------------------------------|
| 2009 – 2013 | PhD, Solar Energy (Photovoltaics)  | Monash University, Australia |
| 2011        | Stanford Ignite — Entrepreneurship Programme                               | Stanford GSB, California     |
| 2005        | Master's Thesis, Dye-Sensitized Solar Cells (under Prof. Michael Graetzel) | EPFL, Switzerland            |
| 2004 – 2005 | MS, Mechanical Engineering (Solar Energy)                                  | Dalarna University, Sweden   |
| 1999 – 2003 | B.E., Production Engineering   | Shivaji University, India    |

## RESEARCH, PUBLICATIONS & INTELLECTUAL PROPERTY

- 55+ peer-reviewed journal papers in Elsevier, Springer-Nature, Wiley, ACS, RSC and IEEE publications

- 2,800+ citations | h-index 33 | i10-index 56 (Google Scholar)
- Co-Editor, 4 Springer-Nature volumes on Solar Energy (Lecture Notes in Electrical Engineering series)
- 13 granted Indian patents; 20 granted industrial designs; 33 total granted IP assets
- 3 patents filed in 2025-26 cycle (Cu-Cl hydrogen, PCM storage, Direct Ink Writing)
- Select high-impact journals: Energy & Environmental Science (IF 32), Angewandte Chemie (IF 16), Solar Energy Materials & Solar Cells, Applied Energy, Journal of Power Sources

## AWARDS, RECOGNITION & MEDIA

- Dean's International Postgraduate Research Scholarship — Monash University (2009–2013)
- BASE Fellow — Indo-US Science & Technology Forum (competitive international research fellowship)
- India Today (August 2023) — Featured for WattCycle and PV recycling initiative
- Economic Times Energy (August 2023) — Expert commentary on solar waste circular economy
- NDTV Education (August 2022) — Featured for IIT Mandi technology entrepreneurship
- NDTV Profit — Regular contributor on ESG governance and clean energy policy

## BOARD COMPETENCY PROFILE

| Board Competency                               | Evidence  |
|--|---|
| <b>Financial &amp; Fiduciary Oversight</b>     | Dean Finance · ₹256 Cr budget · NISM Investment Adviser candidate (X-A/X-B)     |
| <b>Clean Energy &amp; ESG Domain Expertise</b> | WattCycle · MNRE/NSEFI policy · IICA ESG Professional · 53+ papers              |
| <b>Technology &amp; IP Governance</b>          | 5→101 patents built · Technology Transfer Coordinator · 13 granted patents      |
| <b>Startup &amp; Venture Governance</b>        | IIT Mandi Catalyst Director · ₹32 Cr raised · ₹25 Cr+ investor transactions     |
| <b>International Perspective</b>               | 7 countries · Erasmus+ · NTU Singapore · EPFL Switzerland · UK/Australia/Sweden |
| <b>Strategic Planning &amp; Execution</b>      | SRIC Associate Dean · Incubator scale-up · WattCycle from 0→₹10 Cr CSR grant    |
| <b>Policy &amp; Regulatory Landscape</b>       | MNRE · Ministry of MSME · TERI WSDS · MoEFCC · NDTV Profit contributor          |

## RELEVANT EXPERIENCE

- Outstanding qualification: PhD from Monash; Stanford Ignite Fellow; EPFL Masters under Prof. Michael Graetzel (Nobel laureate group)
- Senior position and responsibility: Dean Finance (₹256 Cr budget) and former Director of DPIIT-recognised incubator at an Institute of National Importance
- Strategic planning and operations: Built incubator from early-stage to ₹32 Cr grant portfolio; scaled IP from 5 to 101 patents; launched WattCycle from concept to ₹10 Cr funded startup
- Management practice contribution: Teaching Personal Finance & Portfolio Management; NISM certification in progress; NDTV Profit contributor advancing management and ESG discourse nationally
- National impact: MNRE policy dialogue; Ministry of MSME Technical Expert; TERI WSDS speaker; WattCycle addresses India's ₹10,000 Cr+ solar waste challenge
- Association with management ecosystem: M.loD (Lifetime); MCA Independent Director Databank; IICA ESG Professional; Stanford Ignite