

Monto Mani

Email: monto@astra.iisc.ernet.in
monto@cpdm.iisc.ernet.in

Associate Professor
Centre for Sustainable Technologies (formerly ASTRA), &
Centre for Product Design & Manufacturing
Indian Institute of Science, Bangalore - 560 012, INDIA

Academic Background:

- Ph. D., (2003)** Indian Institute of Technology Madras, India
Dissertation: Assessing and Forecasting Sustainability of Human Settlements: An Integrated Model of an Urban Residential Community's Water Usage and Sanitation Practices
- M. Tech., (1997)** Indian Institute of Technology Madras, India
Specialization: Civil Engineering (Building Technology and Construction Management)
- B. Arch., (1995)** BKPS College of Architecture, University of Pune, India
Dissertation: (Urban Design) Proposal for the Banks of the River Mutha: Onkareshwar Temple Front, Pune

Research Interests: Sustainability and Human Settlements

- * Sustainable architecture and design
- * Climate-responsive architecture/green buildings (BiPV)
- * Design/technology Sustainability evaluation and forecasting
- * Integrated Sanitation in Habitats

Professional and Research Experience:

- May 2011 ~ till date, **Associate Professor**, Centre for Sustainable Technologies, IISc
 - May 2008 ~ till date, **Associate Faculty**, Centre for Product Design & Manufacturing, IISc
 - May 2005 ~ May 2011, **Assistant Professor**, Centre for Sustainable Technologies, IISc
- Courses: - Technology and Sustainable Development
- Green/Sustainable Buildings

Research Projects (✓ ongoing & * completed):

- 1) ✓ Studies into the impact of dust and PV temperature on PV system (performance) efficiencies in tropical regions (funded by Robert Bosch Centre for Cyber Physical Systems, IISc)
 - 2) ✓ Assessing resources and energy demand attributed to modern urbanizing transitions in rural dwellings (funded by CiSTUP, IISc)
 - 3) ✓ Sustainable Manufacturing (Co-PI, funded by The Boeing Company)
 - 4) ✓ Technology and Human Development - A Capability Approach (PI - Joint research project with TU Delft funded by NWO Netherlands)
 - 5) ✓ Sustainable Manufacturing (Co-PI, funded by The Boeing Company)
 - 6) * BHEL-IISc Joint research programme on Building Integrated Photovoltaics'
 - 7) * Development, Testing and Promotion of Technology Packages for Total Rural Sanitation for Women in Coastal and Semi-Arid Village/Household Clusters (PI, funded by DST)
 - 8) * Development and Testing of Domestic (Household) PV Integrated Hybrid Solar Still (PI, funded by CAPART)
 - 9) * Design and Development of Technology Management Electronic Newsletter (Co-advisor, Joint project with IIT Madras, funded by DSIR) www.techmotivator.iitm.ac.in
- July 2004 ~ May 2005, **Assistant Professor**, Dept. of Architecture & Regional Planning, IIT Kgp.
Courses: Building Construction, Specification-Estimation & Building Materials Lab, Descriptive Geometry, Working Drawing
Project: Provision of Sustainable Living Environment in Coastal Human Settlements in Orissa, IIT Kharagpur sponsored ISIRD project

Professional and Research Experience (contd.):

- **Jan. 2004 ~ June 2004, Visiting Researcher, PROTSAHAN, A Kerala based NGO**
Project: Fishing Harbours: Current Issues and their Management - A Social-Environmental Impact Study
- **May 2003 ~ June 2004, Project Officer, Dept. of Humanities and Social Sciences, I.I.T. Madras**
Project: Design and Development of Technology Management Electronic Newsletter
- **Nov. 1999 - Dec. 2001, Senior Project Officer, Dept. of Civil Engineering, I.I.T. Madras**
Project: Development of a Software for DSS, required in the preparation of Integrated Coastal and Marine Area Management (ICMAM) plans for Goa and Gulf of Kachchh

Professional Affiliations:

- * Registered Architect, Council of Architecture, India
- * Associate Member of the Institution of Engineers (AMIE), India
- * Associate Member of the Indian Institute of Architects (AIIA)
- * Member - Indian Society for Technical Education (ISTE)
- * Member - Earth Building Association of New Zealand (EBANZ)

Patents:

- A low-embodied energy building integrated photovoltaic roof mounting mechanism (filed November 2007)
- An integrated sanitation system and a process for effective treatment of wastewater (filed November 2008)
- Double guarded hot-box (filed May 2011)
- Stove-mould assembly (filed December 2011)

Publications:

Books: 1; Edited Books: 2; Chapters in Ed. Books: 11+; International Journals: 23+; International Conferences & Articles: 21+

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