

Associate Professor  
Cryogenic Engineering Centre  
Indian Institute of Technology Kharagpur  
Kharagpur - 721 302, INDIA

Indranil Ghosh

**Research Focus:** Heat Exchangers: Plate Fin, Coiled Tubular, Metal Foam and Minichannel  
Heat Transfer in Metal Foam, Solid Sorption Cooling, Cryosorption Storage of Hydrogen

### Employment

Year	Designation / Organisation
May 2018 – till date	<b>Associate Professor</b> , Cryogenic Engineering Centre Indian Institute of Technology, Kharagpur
May 2006 – May 2018	<b>Assistant Professor</b> , Cryogenic Engineering Centre Indian Institute of Technology, Kharagpur
May 2004 – April 2006	<b>Post Doctoral Researcher</b> , Hydrogen Research Institute, University of Quebec at <i>Trois Rivières</i> , Canada
June 1999 – April 2004	<b>Research Scholar</b> , Cryogenic Engineering Centre Indian Institute of Technology, Kharagpur
Feb 1995 – June 1999	<b>Engineer (R&amp;D)</b> , Research and Development Dept., Bharat Heavy Plates and Vessel Ltd. (Now HPVP Ltd)

### Education

Degree	Year	University/ Institution
Doctor of Philosophy	2005	Indian Institute of Technology Kharagpur
Master of Technology, Cryogenic Engineering	1995	Indian Institute of Technology Kharagpur
Master of Science, Physics	1992	Jadavapur University, Kolkata
Bachelor of Science, Physics	1990	Jadavapur University, Kolkata

### Research Activities

#### Multistream Heat Exchangers

- Design, simulation, optimisation of plate fin type
- Tubular coiled type exchanger design / fabrication

#### Applications of Open Cell Metal Foam in

- Passive radiation cooler for space cryogenics
- Anti-slosh baffle in cryogen transport
- Regenerator packing material
- Extended heat transfer surface or fins

#### Heat Transfer in Minichannel

- Thermo-hydraulic characterisation of minichannel
- Minichannel heat exchanger design, fabrication

#### Solid Sorption

- Pulsed solid sorption continuous cooling
- Equilibrium adsorption capacity measurement

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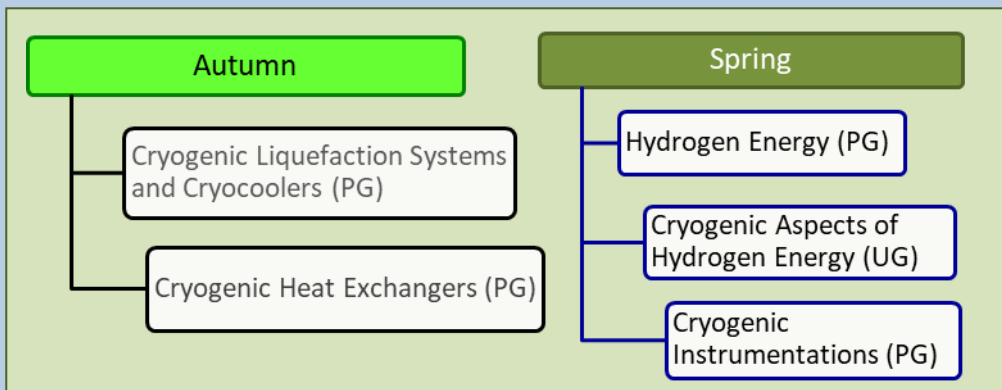
91-3222 283589 (Residence)



## Sponsored Projects/ Consultancy

Project Title	Agency
Studies on Desorption Cooling from Activated Carbon	IIT Kharagpur
Experimental Studies on High Porosity Open Cell Metallic Foam Heat Transfer	CSIR, New Delhi
Design, Fabrication and Testing of Miniature Heat Exchangers and Heat Sinks	CSIR, New Delhi
Radiation Heat Transfer in Open Cell Metal Foam – An Experimental Study	CSIR, New Delhi
The Heat Exchanger Design for Helium Liquefier at VECC Kolkata	VECC, Kolkata

## Teaching



## Thesis Supervision

### Ph.D. Theses Title (Completed)

- Activated Carbon based Continuous Sorption Cooling in a Single Adsorbent Column.
- Analysis and Performance Studies of Some Equipment with Combined Sensible and Latent Heat Transfer (*as co-supervisor*)
- High Porosity Open-Cell Metal Foam as Extended Heat Transfer Surfaces

### Ph. D. Students (Ongoing) – Two

### M.S. Thesis Title (Completed)

- Experimental and Theoretical Studies on Miniature Crossflow Heat Exchangers

## Personal

Website: <http://www.iitkgp.ac.in/department/CR/faculty/cr-indranil>

Nationality: Indian

