

DR. UPENDRA BEHERA

Principal Research Scientist



Academic Qualifications:

- B.E. (Mechanical) from I.G.I.T., Sarang under Utkal University
- M.Tech. (Cryogenic Engineering) from I.I.T. Kharagpur
- Ph.D. from IISc, Bangalore

Membership of Professional Bodies:

- Life member – Indian Cryogenic Council
- Life member – Cryogenic Society of America

Professional Experiences:

- Principal Research Scientist, CCT, IISc, Bangalore since 2011
- Senior Scientific Officer, CCT, IISc, Bangalore during 2005 - 2011
- Scientific Officer, Gr. I, CCT, IISc, Bangalore during 2002 - 2005
- Scientific Officer, Gr. II, CCT, IISc, Bangalore during 1997 - 2002
- Engineer (Commissioning), M/s Bharat Heavy Plate and Vessels Ltd. (A Govt. of India Enterprise), Vishakhapatnam during 1996 - 1997

Research Interest:

- Thermal Conductivity Study of Materials at Low Temperatures
- Vortex Tube Air Separator
- Cryocoolers
- Cryogenic Systems and Components

Research Projects:

- PI, Thermal conductivity studies of cryopanel coated with adhesives and activated carbon adsorbents down to 4.5K, BRFST
- PI, Thermo-acoustic pulse tube refrigerator operating down to 100K, ISRO-IISc, STC
- PI, Indigenous development of **5W@20K** two stage pulse tube cryocooler, BRNS
- Co-PI, Experimental studies and characterization of adsorbents down to 4.2K for development of Cryosorption pumps, BRFST
- Co-PI, Superconducting magnet and recondensation liquid helium cryostat based multistage pulse tube cryocoolers, BRNS
- Co-PI, Development of Palladium based hydrogen gas sensors for safety applications, ISRO-IISc, STC
- Co-PI, Development of helium recondensation system based on two stage pulse tube cryocooler, BRNS
- Co-PI, Development of an electro-acoustic type hydrogen gas monitor for use with ambient air, ISRO-IISc, STC
- Co-PI, Development of a single stage double inlet pulse tube refrigerator and numerical modeling, ISRO-IISc, STC

Publications: 52

Patents: 1

Contacts:

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