

Detailed Technical Programme

Day 1 (27th November, 2024)

8:30 - 09:30	REGISTRATION		Kanad
9:30 - 10:30	INAUGURAL SESSION		

11:30 - 13:00	Technical Session - 1	Chairman: M. D. Atrey and R K Bhandari	Kanad
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11:30 - 12:15 Plenary Talk - 1 - Dr. V. Narayanan (LPSC-ISRO)
 Topic: Cryogenic Propulsion Systems in Indian Space Programme
 12:15 - 13:00 Talk by Life time Achievement Awardee

14:00 - 16:00	Technical Session - 2	Chairman: V. L. Tanna and Prabhat Kumar Gupta	Kanad
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Invited Talks

14:00-14:20	ID-171	Uttam Bhunia	Cold testing and Performance evaluation of QWR cryomodule for Post Acceleration of Rare Isotope Beam at VECC Kolkata
14:20-14:40	ID-261	S Raghavendra	2 K Test Facilities for Superconducting RF cavities at RRCAT
14:40-15:00	ID-263	P. S. Ghosh	Research Activities of Process Equipment and Design Laboratory at Cryogenic Engineering Centre at IIT Kharagpur on Space Propulsion

Contributory Talks

15:00-15:15	ID-69	Atul Garg	Conceptual design of current leads for liquid nitrogen cooled copper coils in SST-1
15:15-15:30	ID-79	J. S. Mishra	Application of cryogenics in developing pellet injectors for fuelling and plasma control in magnetically confined fusion devices
15:30-15:45	ID-81	Bhargav Choksi	Performance results of upgraded Cryogenic System with 4 Cryo-condensation pumps during 0.2 to 0.7 MW Positive Neutral beam Operation
15:45-16:00	ID-122	Nidhin. S. L	Design and Manufacturing of 4K Cryostat for Superconducting Wavelength Shifter

14:00 - 16:00	Technical Session - 3	Chairman: A K Sahu and Abhilash Narayan	Helios
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Invited Talks

14:00-14:20	ID-265	S. Panigrahi	Design features of Cryogenic Turbo Pump
14:20-14:40	ID-221	Vivek Kr. Singh	Preliminary Studies on Sub-Kelvin Cooling Solution for Space Applications
14:40-15:00	ID-252	Manu Varrier	Mathematical Modelling of cryogenic engine and its applications
15:00-15:20	ID-262	S. Kasthuriangan	Experimental and theoretical studies on warm up of thermal masses from 4 K to 300 K for Magnetic Resonance Imaging Applications

Contributory Talks

15:20-15:35	ID-130	Maria Sagajan. T	Long term storage and transfer of cryogenic propellants in space environment
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15:35-15:50	ID-246	Divyang Bohra	3D Printed Gas Foil Bearings for Cryogenic Turbopumps in Cryogenic Propulsion-A Novel Approach
15:50-16:05	ID-90	U. G. P. S. Sachan	Development Testing and Magnetic Measurement of 1.5 Tesla MRI Magnet for Human Extremities

14:00 – 16:00	Technical Session - 4	Chairman: Upendra Prasad and H. B. Naik	Nitron
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Invited Talks

14:00-14:20	ID-135	R. J. Thomas	Performance evaluation of different parameters of REBCO-based HTS Superconductor Cables
14:20-14:40	ID-235	S. Senthilnathan	SQUID-Based Magnetocardiography (MCG): a noninvasive tool to study cardiac activity
14:40-15:00	ID-266	Pintu Das	A closed cycle cryostat based single shot He-3 facility for experiments at 300 mK

Contributory Talks

15:00-15:15	ID-244	H. Bahirat	Force Measurements for Axial Superconducting Magnetic Bearing
15:15-15:30	ID-139	Vidur Raj	Superconducting NbN Nanowire based Mid-IR Single Photon Detectors
15:30-15:45	ID-226	Anuj Kumar	Anomalous magnetization behavior of RECrO ₃ (RE = Nd Sm Eu and Gd) Orthocromites
15:45-16:00	ID-234	Lata Bisht	Utilization of low Tc SQUID magnetometer in TDEM measurement for geophysical exploration

16:30 - 18:00	Technical Session - 5	Chairman: Srinivasan Kasthuriangan and Tamal Bhattacharya	Kanad
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Invited Talks

16:30-16:50	ID-236	Prashant	Applications of Cryogenic Engineering in Refrigerated Transport
16:50-17:10	ID-258	Pavitra Sandilya	Cryogenics for Energy Storage and Carbon Capture
17:10-17:30	ID-233	D. K. Agarwal	Investigation of Direct contact condensation of cryogenic fluid

Contributory Talks

17:30-17:45	ID-166	Sanjay Kr. Gajera	Brazing of stainless steel to OFHC copper using BVAg-8 silver paste by vacuum Brazing technique
17:45-18:00	ID-144	A. Chakravarty	Development of a cryo-adsorption based helium recovery system

16:30 - 18:00	Technical Session - 6	Chairman: S Raghavendra and Nitin Shah	Helios
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Invited Talks

16:30-16:50	ID-55	K V Srinivasan	Understanding the Possibility of Extending the Helium Liquefier Operation Under the Critical Impurity Level
16:50-17:10	ID-145	Mukesh Goyal	An Update on the development of Cryogenic Systems at CrTD BARC
17:10--17:30	ID-196	Ananta Kumar Sahu	Commissioning results of indigenous helium plant of capacity 200 W at 4.5 K and plan to upgrade to 1 kW

17:30-17:50	ID-212	Upendra Behera	Cryogenic research activities at Centre for Cryogenic Technology IISc Bangalore
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Contributory Talks

17:50-18:05	ID-156	Ankit Jain	Development and Commissioning of LHP100 helium liquefier/refrigerator
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16:30 – 18:00	Technical Session - 7	Chairman: Uttam Bhunia and Rijo Jacob Thomas	Nitron
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Invited Talks

16:30-16:50	ID-103	Upendra Prasad	High temperature superconducting magnet for magnetic fusion: R&D update and plan
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Contributory Talks

16:50-17:05	ID-157	A. Rai	Surface Processing of Niobium Quarter Wave Resonators for the IUAC Linac
17:05-17:20	ID-173	Ashutosh Pandey	Recent Operation of the Superconducting Linear Accelerator for User Experiments at Iuac
17:20-17:35	ID-260	A. Bhardwaj	Development of SS316L End-Group for Bg 0.9 650MHz Superconducting Cavity
17:35-17:50	ID-271	Sumit Kumar Nayak	Development of High-Temperature Superconducting Switches (YBCO) for Next-Gen MRI Applications

Day 2 (28th, November, 2024)

9:30 - 10:10	Technical Session - 8	Chairman: B Sarkar and Maciej Chorowski	Kanad
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Plenary Talk - 2 - Dr. David Grillot

Topic: ITER Helium Cryogenic System installation and commissioning status

10:15 - 11:05	Technical Session - 9	Chairman: K. V. Srinivasan and Upendra Behera	Kanad
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Contributory Talks

10:15-10:30	ID-230	Sachindra Kumar Rout	Development of helium compressor for GM and GM - type pulse tube refrigerator
10:30-10:45	ID-179	Krunal Mistry	Evaluation of Hydrogen Liquefier options for large-scale liquefaction
10:45-11:00	ID-242	Indranil Ghosh	Computational studies on sorption hydrogen compressor

10:15 - 11:05	Technical Session - 10	Chairman: Anup Choudhury and Rajvir Singh Doohan	Helios
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Invited Talks

10:15-10:35	ID-253	S. Mahapatra	The Dilution Refrigerator: A crucial Tool for Development of Quantum Technologies
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Contributory Talks

10:35-10:50	ID-104	Venkatesh Dasari	An alternate approach to modelling of cryogenic heat exchangers
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10:50-11:05	ID-194	Dipanshu Bansal	Design and Analysis of continuous heat exchanger for dilution refrigerators
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10:15 - 11:05	Technical Session - 11	Chairman: Abhay Singh Gour and Abhishek Rai	Nitron
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Contributory Talks

10:15-10:30	ID-209	Anand Pal	Exploring the mysterious pseudo gap in high- <i>t_c</i> cuprate superconductors
10:30-10:45	ID-251	Nidhi Choudhary	Analysis of superconducting and optical properties in atomic layer deposition and sputtered thin films for next-generation single-photon detectors.

Invited Talks

10:45-11:05	ID-267	Sanjay Chouksey	Superconducting Radio Frequency Cavities Development at RRCAT: Technological issues and Challenges
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11:30 - 13:00	Technical Session - 12	Chairman: Mukesh Goyal, S Kasthuriangan, R Gangradey, K V Srinivasan, Indranil Ghosh, Sunil Kr. Sarangi	Oxys
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Poster Session - 1

101.Large and Medium Scale Helium Refrigeration & Liquefaction

ID-70	T. K. Maiti	Simulation of a helium liquefier model under various off-design mixed mode operations with and without LN2 pre-cooling
ID-75	Pradip Panchal	Migration of Control System for Oil Removal System of Helium Refrigerator cum Liquefier System
ID-84	O. Chandratre	Procedure of Helium Turbine Assembly with Indigenous liquid Helium Cold Box Pressure Test and Leak Test
ID-113	P. Brahmabhatt	Study of effect of Isenthalpic Joule-Thomson valve and Isentropic wet expander on Refrigeration Capacity of Helium Plant
ID-147	A. A. Shinde	Product And Process Optimisation In The Development Of High-Flow Charcoal Adsorber For Cryogenic Application
ID-149	Arijit Das	A test setup of 2k heat exchanger for evaluating its thermo-hydraulic performance
ID-161	Hitesh R Kavad	Measurement of impurities in helium gas at different locations in operation of indigenously developed helium liquefier plant at IPR

102.Cryogenics systems for accelerators and fusion devices

ID-58	Pankil Shah	Experience on Overhauling of Helium Reciprocating compressor
ID-61	Rohit Kumar	Cryogenic Distribution Performance Assessment for an 80K Thermal Shield in a Large-Scale Cryostat
ID-62	Rakesh Kr. Patel	Cryogenics Aspects of Proposed Liquid Nitrogen Cooled Copper Coils of SST-1
ID-64	G. Mahesuria	Upgradation of Wonderware Intouch SCADA software for SST-1 cryogenics system
ID-67	Dikens Christian	Operational experience of 12 kA/16 VDC switch mode power supply for testing MgB2 shunt with HTS current leads at IPR
ID-72	Vivek Sharma	Simulative Analysis of Friction Factor Correlations for Subcooled Cryogenic Fluids Using ANSYS Fluent

ID-80	M. Ghate	Design fabrication installation and testing of a cold bore vertical cryostat for High temperature superconducting magnets
ID-85	Ankit Tiwari	Design of Relief System for Accidental Scenarios of HB 650MHz Cryomodule
ID-89	Nirmalya Datta	Safe storage handling and use of compressed gas in cryogenic plant at VECC

103.Cryocoolers and their application

ID-53	K. V. Srinivasan	Design Optimization and study of Fluid Dynamics for the Porous Multi-Layered Porous and Hybrid Regenerators for Cryogenic Applications
ID-83	Paresh Panchal	Characterization of the cryostat configuration for Argon pellet freezing experiments
ID-96	Brindaban Ghosh	Thermal Analysis of Recondenser for Helium Liquefaction using Cryocooler
ID-133	Sarvesh Kashyap	Design and Preliminary Testing of the Stirling Pulse Tube Cryocooler
ID-150	Kallol Mukherjee	Development of an optical cryostat for Raman Spectroscopy.
ID-188	Prabhakara S	Experimental investigation of pressure drop across regenerator at cryogenic temperature
ID-191	Darshit Parmar	Mixed Refrigerant Joule-Thomson (MRJT) cryocooler for medical applications
ID-199	Kashif Akber	Systematic Parametric Study of Regenerators in Cryocoolers using REGEN 3.3
ID-208	A. H Hulibandi	Computational analysis of trapezoidal shaped permanent magnet linear motor for cryocoolers
ID-229	S. K. Rout	Development of single stage GM Cryocooler at C V Raman Global University Bhubaneswar

104.Cryogenics for Space

ID-184	Siddhant Jaisal	Design Studies of Flexure bearing for Space Grade Cryocooler Pressure Wave Generator (PWG)
ID-195	Omkar Parit	Ortho-Para Hydrogen Conversion in Space Applications: A Review of Challenges and Solutions
ID-201	A. L Hareendran	Experimental measurement and study of thrust generated by Magneto Plasma Dynamic Thruster (MPDT)
ID-219	Gautam Ranjan	Design of Nb ₃ Ti-based Superconducting Magnet for Adiabatic Demagnetisation Refrigerator
ID-220	R. P.Sharma	Performance Evaluation of Tungsten Magnetoresistive Heat Switch Using Adaptive Neuro-Fuzzy Inference System and Artificial Neural Network Models

105.Dilution Refrigerator

ID-151	M. K. R. Pulagam	Design and development of an indigenous gas gap switch
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107.Heat and Mass Transfer at low temperature

ID-57	H. Nimavat	Heat-in-leaks investigation and its resolution in large Cryogenic Storage tanks
ID-169	Javed Akhter	Parametric study on the Two-Phase Heat transfer in a Microchannel using CFD
ID-181	Rohan Kundu	CFD based investigation of evaporation behavior in water and liquid cryogen
ID-243	Shrabani Ghosh	Effect of stacking sequence of epoxy-based GFRP laminates on its thermal conductivity measurement at low temperature

108.Cryogenics for medical and food application

ID-112 Manan Gulati Thermal and CFD Analysis of a Liquid Nitrogen-Based Refrigerated Transport Container

109.Cryogenics for Industrial Application

ID-111 D. Sinnarkar Design failure mode and effect analysis of liquid nitrogen based refrigerated transportable standalone container

ID-125 Pavitra Sandilya A preliminary study to determine the charging cut-off temperature in a packed bed cryogenic energy storage system

ID-128 Abhishek Singha ANN-based prediction of solid-vapor equilibria for N₂-CO₂ system relevant to cryogenic carbon capture

110.Novel/Futuristic applications of cryogenics

ID-190 Binet Monachan Experimental Investigation on the Influence of Mutual Capacitance and Channel Width on the Performance of a Cryogenic Two-Phase Flow Meter

111.Cryogenic instrumentation and control

ID-71 Ramesh Kr. Joshi Open Source Prototype DAQ Application For Lab level Cryogenics Experiments

ID-82 Niraj Chaddha Cost effective open-cycle cryostat using liquid nitrogen for studying cryogenic properties of a systems

ID-110 S. C. Patidar In house Development of a Liquid Nitrogen Level Probe with Transmitter

ID-178 Abdul Nazer K H Monte Carlo simulation-based analysis of cryo-panel array design for LN₂ cryo-adsorption vacuum pumps using MolFlow+

ID-186 H. K. Raj Design and implementation of a capacitance measurement circuit for ECT sensors in cryogenic two-phase flow applications

ID-187 Chinnu V K Comparative simulation studies on displacement amplifier compliant mechanism for actuation applications in low temperatures

112.Other novel applications

ID-123 Md. W. Siddiqui Replacement of R23 with Lower GWP Refrigerant R472A in Ultra Low Temperature (ULT) Refrigeration System

ID-153 Tapas Kr. Nandi Development of an experimental setup for testing of a pressure wave refrigerator

201.Superconducting magnets for Accelerators and Fusion Programs

ID-63 Swati Roy Study on arcing incidences in SST-1 PF superconducting magnet bus-bars and current leads

202.Superconducting cavities for Accelerators

ID-115 Abhishek Jain Weld Parameters Development for Fabrication of 650 MHz SCRF Cavity using Pulsed Nd:YAG Laser

203.LTS/HTS superconducting material

ID-99 Yogendra Singh Fabrication and characterization of MgB₂/Nb superconducting strand

204.Superconducting Magnets for research application

ID-95 Piyush Raj Development and testing of novel hybrid CICC joint

205.Superconductivity for Power Applications

ID-136 Abhishek Kumar Design and Simulation of Partially Superconducting Synchronous Generator using 2G HTS Tape

ID-205 Divya Kr. Sharma Development of Cryogenic Test Facility for High Temperature Superconducting (HTS) Pole Coils of MW level HTS Synchronous Motors

206.Superconducting MRI magnet

ID-200	Sumit Kr. Chand	HTS Tape joining techniques and its I-V characterization at 77 K
ID-211	Neha Sharma	4K GM-cryocooler based test rig for characterization of superconducting joints for Conduction- Cooled MRI Magnet

14:00 - 14:40 Technical Session - 13 Chairman: Sunil Kr. Sarangi and Lionel Queitter Kanad

Plenary Talk – 3: Prof. Richard Magdalena Stephan

Topic: Superconducting Magnetic Levitation (SML) applied to Urban Transportation

14:45 - 16:15 Technical Session - 14 Chairman: S Panigrahi and D S Nadig Kanad

Invited Talks

14:45-15:05	ID-249	A. Narayan	Aspects of configuration design and mechanical integration of LOX-LH2/LOX-kerosene rocket engines
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Contributory Talks

15:05-15:20	ID-106	Avinash Kr. Yadav	An integrated thermodynamic model for liquid oxygen tank pressurisation system during a rocket engine operation
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15:20-15:35	ID-264	Vivek S	Numerical and experimental investigation of bowing in large diameter liquid oxygen feed lines
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15:35-15:50	ID-174	S. R. Mohanty	Second-order study of micro-Stirling cryocooler with corrected regenerator temperature: performance and loss analysis
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15:50-16:05	ID-138	I. Maheshwari	Thermal performance evaluation of microwave remote sensing satellite tile antenna in radiation mode using a gaseous nitrogen based thermal vacuum system.
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14:45 - 16:15 Technical Session - 15 Chairman: Ranjana Gangradey and R S Meena Helios

Invited Talks

14:45-15:05	ID-247	Sunil Kr. Sarangi	Design of a GM-type Pulse Tube Cryo-cooler for an Entry-level Research Cryostat
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Contributory Talks

15:05-15:20	ID-68	Sujaan Khan	Design analysis to pre-cool the cold mass using a 4K PT cryocooler
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15:20-15:35	ID-238	Upendra Behera	Development of indigenous single-stage and two-stage mechanical drive GM cryocooler
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15:35-15:50	ID-119	D. R. Singh	Cryocooler Development at RRCAT: Challenges and Achievements
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15:50-16:05	ID-222	A. Badgujar	Theoretical and Experimental Investigation of Stirling type Pulse Tube Cryocooler with a Cold Phase Shifter
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14:45 - 16:15 Technical Session - 16 Chairman: Sanjay Chouksey and P S Ghosh Nitron

Invited Talks

14:45-15:05	ID-269	M.Chorowski	Design, production and commissioning challenges of helium cryogenic distribution systems
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15:05-15:25	ID-121	Nitin Shah	India's contribution to the cryogenic system of ITER and present status
15:25-15:45	ID-146	A. Chakravarty	A Helium Refrigerator for Hydrogen Liquefaction: Prospects and Possibilities
Contributory Talks			
15:45-16:00	ID-141	Sandip Pal	Progress Update for the cryogenic system of the RIB e-Linac facility
16:00-16:15	ID-160	Naveen Kumar	Conceptualisation and design of a new rotor bearing system for ultra-high speed cryogenic turboexpander

16:45 - 18:30	Technical Session - 17	Chairman: Parag Kulkarni and R. K. Bhandari	Kanad
Industry Session			

16:45-17:05	Platinum	Inox India Ltd.	
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17:05-17:20		Stirling Cryogenics BV, Netherlands	
17:20-17:35		Apollo Heat Exchangers Private LTD.	
17:35-17:50	Gold	Noblegen Cryogenics India Private Ltd.	
17:50-18:05		Linde Kryotechnik AG	
18:05-18:20		FDGsi India Private Ltd.	

Day 3 (29th, November, 2024)

9:00 - 9:40	Technical Session - 18	Chairman: T S Datta and Subimal Saha	Kanad
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Plenary Talk – 4: Dr. Lionel Quettier

Topic: The Iseult 11.7T Whole Body MRI odyssey

9:45 - 11:10	Technical Session - 19	Chairman: Mukesh Goyal, S Kasthuriangan, R Gangradey, K V Srinivasan, Indranil Ghosh, Sunil Kr. Sarangi	Oxys
Poster Session - 2			

101.Large and Medium Scale Helium Refrigeration & Liquefaction

ID-162	Nawratan Kumar	Experimental results of pressure drop of Cryogenic Filter for helium gas to use in helium liquefier plant
ID-143	Sandip Pal	Development of test setup for the turboexpanders and plate-fin heat exchangers
ID-170	N. A. Ansari	LHP100 helium liquefier cryogenic piping flexibility analysis
ID-172	S. K. Bharti	Design of a new test set-up for experimental evaluation of Spiral Groove Thrust Bearings
ID-176	M. Jadhav	Studies on cryogenic turboexpanders for LHP100 Helium liquefier
ID-214	Ananta Sahu	Thermo-hydraulic analysis to find safe flow parameters of turbine start-ups in helium plant operation

ID-203 Upendra Behera Indigenous development of cryocooler based helium liquefier

102.Cryogenics systems for accelerators and fusion devices

ID-92 Arvind Tomar Design and development of pressure drop test facility for solenoid coils

ID-100 Pratik Kumar Experimental evaluation of hydrogen gas sticking coefficients on cryogenic panels for cryo-pump development

ID-155 Gaurav Agrawal Thermal analysis of strongback for HB650 MHz cryomodule at RRCAT

ID-159 Jitendra Kumar Development and initial experiments of super fluid helium cryoplant "SHP20"

ID-164 Gaurav Purwar Enhancement of the Electrical Power Distribution Network for the 1.3 kW at 4.5K Helium Cryo Plant and LN2 Pre-Cooling System at IPR

ID-60 L.N. Srikanth. G Periodic testing of liquid nitrogen storage vessels

ID-116 Manoj Kumar Design optimization and numerical analysis of pillow plate panel for cryogenic application

103.Cryocoolers and their application

ID-239 Debashis Panda Characterization of regenerator matrix materials in the range of 30 K to 4.2 K temperatures towards the development of miniature pulse tube cryocoolers for space applications

ID-248 Debashis Pasa A quasi-one-dimensional numerical model of GM-type pulse tube cryo-refrigerator

ID-134 Om Khairnar Mathematical Modeling and CFD Analysis of Cryocooler Performance for a Low-Capacity Helium Purification System. Experimental Analysis on Refrigeration System Based on Adsorption Employing Characteristic Physical Adsorbent Serviceable Braces

ID-165 S. A. M. Krishna

ID-202 Archana B Suresh CFD simulation of an integral type free piston Stirling cryocooler with multi-mesh regenerator

ID-204 Sijo K K Parametric and CFD analysis of a two-stage free piston Stirling cooler working at 70 K

ID-228 Vardhan J. Shah Modelling and Analysis of Moving Magnet Type Linear Compressors

ID-232 S. Saha Development of HTS current lead for cryo-cooler based Superconducting Magnet.

ID-272 Tejinder Kumar Shuttle Losses

Jindal

ID-273 Badrinath Behera Computational analysis of moving coil linear motors for enhanced cryocooler performance

104.Cryogenics for Space

ID-107 Niranjana K. Sabu Numerical study of cryogenic cavitation in a venturi for low exit pressure

ID-109 Deep Kant Raj Investigation of flow behaviour in a vertical cryogenic feedline with stagnant fluid

ID-148 Khalid Rashid Study the effect of vortex chamber geometry on spray characteristics of closed type swirl injector for high thrust cryogenic liquid rocket engine

ID-175 Alok Palatasingh Performance analysis of compact Joule-Thomson cryocooler using Aspen-HYSYS optimization tool

106.LNG and Liquid Hydrogen as Fuel

ID-185 E. Arun Kishore Comparative Analysis of Steady-State and Transient Heat Transfer Models for LNG Tank Insulation in Maritime Transportation

107.Heat and Mass Transfer at low temperature

- ID-180 Yogendra Kuwar Theoretical estimation of heat in-leak and boil-off in the Cryogenic storage system
- ID-223 Vivek Kr. Singh Mathematical Modelling of Nitrogen Axial Grooved Heat Pipe for Potential Space Applications
- ID-237 D.Mohanty Transient heat transfer analysis of low-temperature packed-bed for Cryogenic Energy Storage system

108.Cryogenics for medical and food application

- ID-131 Vivek Wagadiya Design and Numerical Analysis of Cryogenic Distillation Column for Extraction of Liquid Oxygen
- ID-91 U. G. P. S. Sachan Persistent Mode operation and NMR Measurements in 1.5 Tesla MRI Magnet

109.Cryogenics for Industrial Application

- ID-257 Pavitra Sandilya Prospects for improving the TRL of cryogenic carbon capture
- ID-241 Indranil Ghosh Open-cell metal foam as an anti-sloshing baffle

111.Cryogenic instrumentation and control

- ID-189 Praveen Topagi Development of calibration facilities for cryogenic temperature sensors and mass flow meter measurements
- ID-197 N. Venugopal Inverse Approach for RRR Measurement in Thin-Film Nb-Coated SRF Cavities Using Planar Inductor Eddy Current Sensors
- ID-255 M. D. Shetty Development of Helium Gas Management System for Cryogenic plant in LabVIEW for TIFR Mumbai
- ID-54 H.J. Dave Design of Distributed Control and Data Acquisition System of Cryogenics Plant System
- ID-88 A. K. Sikdar Field emission point for high magnetic field operation at cryogenic temperature
- ID-114 Moni Banaudha Development of Instrumentation to evaluate the heat conducting property of different material at cryogenic temperatures
- ID-124 R. N. Dutt Automation of Liquid Nitrogen Tank Level and Pressure Control for Detector Filling System for the INGA facility at IUAC.

112.Other novel applications

- ID-240 Abhinav Singh Numerical Study of a Two-turn Nitrogen Pulsating Heat Pipe
- ID-245 H.Bahirat A Spider Structure for Conduction Cooled Coils

201.Superconducting magnets for Accelerators and Fusion Programs

- ID-167 Chirag Dodiya Operational protocol of superconducting magnet system of SST-1

202.Superconducting cavities for Accelerators

- ID-207 Sandeep R. Nair Preliminary EB Welding and RRR studies on Niobium for SSR Cavity development for MEHIPA-1
- ID-231 P. Priyadarshini Surface Processing Facility for MEHIPA-1 Superconducting Cavities

204.Superconducting Magnets for research application

- ID-108 Anees Bano Experimental study of various joint configuration of HTS GdBCO tape for superconducting magnet application

205.Superconductivity for Power Applications

- ID-206 Divya Kr. Sharma Estimation of Machine Parameters of 8 MW HTS Synchronous Motor using FEM based Electromagnetic Analysis
- ID-227 Farukh Khan Development of High-Temperature Superconductor Current Lead for Cryogen-free Superconducting Magnet System

ID-198 Arijeet Roy Chowdhury Design and electromagnetic analysis of HTS based shielded iron core type Inductive SFCL

206.Superconducting MRI magnet

ID-210 A. K. Goswami 4K GM cryocooler based test rig for characterization of superconducting switches for Conduction- Cooled MRI magnet

208.Other novel applications

ID-132 Vyom Saxena Occupational Safety Aspects in Superconductivity Research and Applications

11:30-13:10 Technical Session - 20 Chairman: Vivek Singh and Mukesh Goyal Kanad

Invited Talks

11:30-11:50 ID-102 Vipul kumar Tanna Cryogenic Cooling Options for steady state Nuclear Fusion Devices

11:50-12:10 ID-225 R. Gangradey The Cryopump AGASTYA A step towards Self Reliance

Contributory Talks

12:10-12:25 ID-86 R. K. Sharma Process analysis and sizing of heat exchangers used in LN2 cooled external helium purifier

12:25-12:40 ID-87 Prabhat Kr. Gupta Design and flow distribution analysis of helium dryer for external purification system

12:40-12:55 ID-105 Rohan Dutta Integration of LNG regasification and Cryogenic Energy Storage systems towards addressing cold-loss during regasification intermittent renewable energy and CCU

12:55-13:10 ID-224 S. S. Sisodia Thermal Characterization of Thermal Heat Switch for Space Cryogenic Instruments

11:30-13:10 Technical Session - 21 Chairman: Sunil Kr. Sarangi, Rijo Jacob Thomas, H. B. Naik, Maciej Chorowski Helios

Thesis Session

11:30-11:55 ID-192 M. M. Jadhav Theoretical and Experimental Investigations on Radial Turbomachines for Helium Cryogenic Systems

11:55-12:20 ID-193 B. Nitin Significance of support system and liquid sloshing on the storability of pure cryogenes in dewars

12:20-12:45 ID-117 Ankit Anand Optimal design development and testing of HTS-based superconducting magnet for energy storage application

12:45-13:10 ID-137 Nitin Bairagi Study of MgB2 based superconducting current feeder system for fusion devices

11:30-13:10 Technical Session - 22 Chairman: Sandip Pal and Sengottuvel Senthilnathan Nitron

Contributory Talks

11:30-11:45 ID-73 Joydip Nandi Quality factor enhancement of detection electronics of Penning trap at cryogenic temperature

11:45-12:00 ID-93 A. K. Sikdar Dielectric measurement at low temperature using indigenously built open cycle cryostat

12:00-12:15	ID-154	S. K.Jain	Commissioning of MPROGICON PLC for Control and Instrumentation of LHP100 Helium Liquefier
12:15-12:30	ID-158	T. K. Bhattacharyya	VECC Superconducting Cyclotron Cryogen Delivery Control System Operational experience and various upgrades
12:30-12:45	ID-270	Joby Antony	The IUAC Cryogenic control room and some recent machine learning tests
12:45-13:00	ID-120	Garkki B	Dynamic analysis of AC loss in HTS SMES integrated with DFIG during voltage disturbances using field-circuit interaction method