CRYO -2018

Cryogenic Rocket with over 25 tons of cryogenic liquid propellants stored on-board

Cryogenic Tunnel Food Freezers

National Workshop
on
Current trends in Cryogenics

(March 13, 2018)

Sponsored by
Dept of Higher Education, Science & Technology
and Biotechnology
Govt. of West Bengal.

Organized by
Centre for Rural & Cryogenic Technologies(CRCT)
Food Technology Building,
Jadavpur University.
Kolkata- 700032

Aims and Objectives

Cryogenics is interdisciplinary in nature and it is the science of producing ultra low temperature below –150C (123K) which covers production, maintenance, measurement, control and its utilization for scientific investigation of phenomena, techniques and concepts occurring at or pertaining to low temperature. This sophisticated techniques has pervaded almost all branches of science & technology and is becoming increasingly important in space material science, agriculture and food engineering, high temperature superconducting wire for power transmission. MRI systems uses superconducting magnets as a commercial large-scale application of superconductivity for diagnostic purpose in medical science.

Indian Space Research Organisation (ISRO) has successfully launched GSLV rocket with largest cryogenic engine using huge liquid hydrogen as fuel and liquid oxygen as oxidant that are stored at 20K (-253^0C)[LH_2]. Development of low-temperature structural metals, alloys and composites as well as the application of fracture mechanics for inspection of material, properties and design of equipment to withstand cryogenic temperature are of great importance.

Cryogen can be effectively used for transportation of frozen foods, cryo-grinding of Spices, Plastic and Rubber etc.

As it will not be justified to discuss such broad spectrum of Cryogenics in one or two days, we have focussed mainly on the following three areas:-

1. Agricultural and Food Engineering
2. Material Science and Nano Technology
3. Cryogenic Rocket Propulsion system

The workshop will benefit a large cross section of the teaching, research and student communities in this interdisciplinary field of science and technology which have immense scientific and societal value. To make the workshop a great success, eminent Scientist, Professors and technologists have been invited to speak before the audience.

Eminent Speakers from Indian Space Research Organisation (ISRO), Cryogenic centre IIT Kharagpur, Department of Agricultural and Food Engineering, Indian Institute of Technology, Kharagpur, Tata Institute of Fundamental Research, former Adviser, Dept. of Science & Technology (Ministry of Science &Technology), Govt. of India, New Delhi, Variable Energy Cyclotron Centre, Dept. of Atomic Energy are expected to deliver talks in the workshop.

Who can join?

The target groups are the faculty members of all streams / research scholar / PG students of science & technology and personnel from industries.

About CRCT

Centre for Rural & Cryogenic Technologies (CRCT)is a grant-in-aid Institute under Department of Higher Education, Science & Technology and Biotechnology, Government of West Bengal and affiliated to Jadavpur University.

Venue

K. P. Basu Memorial Hall, Jadavpur University
Kolkata- 700032

Date and time

13th March, 2018 Tuesday, 10-30A.M..

Patrons

Prof. (Dr.)Pradip Kumar Ghosh, Dr.Rajendra S. Shukla,IAS

Vice Chancellor (Acting)
Jadavpur University

Honourable Additional Chief Sectary, Govt. of West Bengal
Department of Higher Education, Science & Technology and Biotechnology,

Sri Arvind Kumar Meena, IAS,
Honourable Joint Secretary,
Govt. of West Bengal
Department of Higher Education, Science & Technology and Biotechnology

Adviser

Prof. Chiranjib Bhattacharjee
Dean
Faculty of Engineering and Technology
Jadavpur University

Prof.Samita Sen
Dean
Faculty of Interdisciplinary studies Law Management (FISLM),
Jadavpur University

Prof. Subrata Nath Koner
Dean - Faculty of Science, Jadavpur University

Prof A. Majumdar, Prof.Manoranjan Khan,
Dr. G.C. Majumdar, Prof. S. Bhattacharya,
Prof. B.K. Chaudhuri.

Organising Committee

Mr. D. Sen (**Secretary cum Treasurer**, Mob-9339872595)
Mr. N. R. Chakraborty (**Technical Secretary**, Mob-9231212624)
Dr. G. Mandal [**Nodal Officer** (Scientific)]

Member

Mr. D. Roy Chowdhury, Mr T. Chanda
Mr. A. Mukherjee, Mr. S. Roy,
Mr. S. Mukherjee, Mr. Sujit Das
Mr. S. Banik, Mr. K. Banik, Mr. K. Roy
Mrs P. Pradhan, Miss A. Chowdhury
Miss S. Ghosh, Mr. M. M. Ghorai, Mr. S. Das
Mrs N. Choudhury Saha

Convener

Prof. (Dr.) S.C.Sarkar
Director, CRCT & Convener
Jadavpur University, Kolkata-700032
Phone no 033 2414 6735/2414 6747
Mob-9830828455
E-mail: scs@cal2.vsnl.net.in

CRYO -2018

National Workshop on
Current trends in Cryogenics

Registration From

Name: …….

Designation: …….

Address: …….

Office: ……..

Residence: …….

E-mail: …….

Phone No: …….

Mobile: …….

Category: Faculty member /Scientist/ Research scholar/ Student

Registration fees waived

_____

Signature of the participant

Place: …….

Date: …….

Emailed to: scs@cal2.vsnl.net.in,
roychowdhurydebajyoti34@gmail.com