



Prof. M. S. Sinha Colloquium 2023

April 10, 2023 (10:30 AM-12:45 PM)

***A tribute to Late Prof. M. S. Sinha, who was
the Founder Head of the Department of Physics
(REC, Durgapur) and also an eminent
Nuclear Physicist of the country***



**Organized by:
Department of Physics
NIT Durgapur
M G Avenue, Durgapur – 713 209**

Free on-line Registration

Last date of on-line Registration: April 8, 2023 (06:00 PM, IST)

Registration Form (Google Form) is available at the following link:

<https://forms.gle/Cf34kxiEtR4c2tiK9>

Joint Coordinators:

Dr. Arghya Chatterjee & Dr. Karthikeyan J

Assistant Professor

Physics Department

NIT Durgapur

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Eminent Speaker: Prof. Jan-e Alam



Prof. Jan-e Alam

Outstanding Scientist

**Head, Physics Group, Variable Energy Cyclotron Centre
Senior Professor, Homi Bhabha National Institute, Mumbai**

Title of the Talk

“Creating Micro-second Old Universe in the Laboratory”

Time	Event
11:00 am – 11:05 am	Theme of the Event by Dr. Arghya Chatterjee, Joint Coordinator of “Prof. M. S. Sinha Colloquium 2023” and Assistant Professor, Physics Department, NIT Durgapur
11:05 am – 11:10 am	Welcome address by Dr. S Sahoo, HoD Physics
11:10 am – 11:15 am	Inaugural Speech by P. Kumbhakar, Dean Academic Research, NIT Durgapur,
11:15 am – 11:20 am	Introduction of Chief guest and Honoring chief guest with a shawl and bouquet
11:20 am – 11:25 am	<i>Tribute to Late Prof. M. S. Sinha by Garlanding/Lighting lamp on his Portrait</i>
11:25 am – 11:35 am	Speech by Prof. Family Member
11:35 am-12:30 pm	Colloquium Lecture by Chief Guest, Prof. Jan-e Alam, Senior Professor, Homi Bhabha National Institute & Head, Physics Group Variable Energy Cyclotron Centre, Kolkata Title of the Talk: “Creating Micro-second Old Universe in the Laboratory ”
12:30 pm - 12:40 pm	Interaction session
12:40 pm - 12:45 pm	Felicitation and Vote of Thanks

Details of the Colloquium Talk:

Title: Creating Micro-second Old Universe in the Laboratory

Abstract:

The collisions of nuclei at ultra-relativistic energies create matter in a plasma phase of quarks and gluons. This plasma phase undergoes a phase transition to produce hadrons like pion, kaon, proton, neutron, etc. The universe has undergone such a phase transition when it was a few microsecond old. The creation and characterization of the plasma of quarks and gluons in the laboratory will be deliberated at the pedagogical level. Some applications of theoretical tools used to understand the properties of this phase will be discussed.

Short Bio-data of Prof. Jan-e Alam:

Prof. Jan-e Alam did his B.Sc.(Hons) and M.Sc. in Physics from Visva Bharati University. He carried out his doctoral research at Variable Energy Cyclotron Centre and received PhD in Physics from Calcutta University. He worked as Post-doctoral Fellow at the Physics Department, Kyoto University, Japan, under the fellowship of the Japan Society for the Promotion of Science (JSPS). Then, he moved to the Department of Physics, University of Tokyo, under the same fellowship. He is an Outstanding Scientist in the Department of Atomic Energy, India. Currently, he is Head of the physics group VECC and a Senior Professor at Homi Bhabha National Institute, Mumbai. His areas of interest include 'High Energy Nuclear Physics, Matter Under Extreme Conditions, Quantum Chromodynamics Phase Transition in the Laboratory and in the Early Universe'. In these areas, Prof. Jan-e Alam has more than 15 years of teaching experience and published more than 110 research papers in international journals. He received the INSA Young Scientist Award from Indian National Science Academy, New Delhi in 1995, Scientific Research Council Outstanding Research Investigator Award in 2005 and the Homi Bhabha Science & Technology Award in 2010 by the Department of Atomic Energy, Govt of India. In 2015, he received Distinguished Faculty Award from Homi Bhabha National Institute, Mumbai.