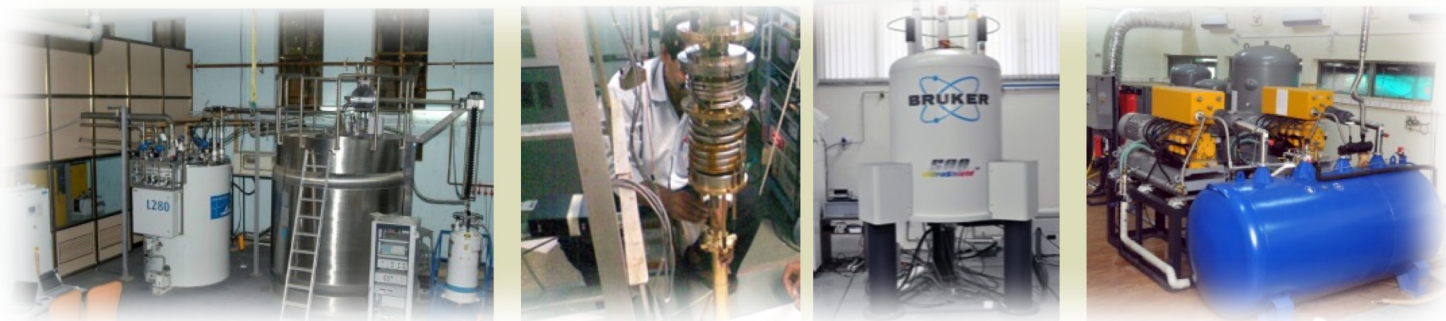


STAI

SEMINARS ON TECHNOLOGICAL ADVANCES AND
INNOVATION



**SCIENCE AND
ENGINEERING OF
ACHIEVING ULTRA LOW
TEMPERATURES**

K. V. Srinivasan



TATA INSTITUTE OF FUNDAMENTAL RESEARCH

JULY

09th

2024

TIFR H Auditorium 11:30 Hrs

Science and Engineering of Achieving Ultra Low Temperatures

R. V. Srinivasan

TATA INSTITUTE OF FUNDAMENTAL RESEARCH
MUMBAI

Cryogenics is vital in various research areas, such as Condensed Matter Physics, Materials Science, Accelerator Physics, Biological Science, etc. Properties such as superconductivity and superfluidity occur only at cryogenic temperatures. In this talk, after introductory remarks regarding obtaining cryogenic temperatures, the methods of production, storage and distribution of liquid nitrogen and liquid helium will be presented. The talk will also cover techniques in achieving ultra-low temperatures along with a glimpse into various applications of cryogenics such as Superconductivity, Nuclear Magnetic Resonance Imaging (MRI) in medical diagnostics, Cryosurgery, Cryo-treatment of materials, Cryogenic engines etc. The talk will also shed light on the research carried out at LTF and the cryogenic setups in various laboratories.

JULY

09th

2024

TIFR H Auditorium 11:30 Hrs

Tea/Coffee 11:15 Hrs