CENTER FOR ATOMIC, MOLECULAR, & OPTICAL SCIENCES & TECHNOLOGIES (CAMOST)

A joint research initiative of IIT & IISER Tirupati

Inauguration Program: 14 August 2020 16:00 – 18:00 IST

About CAMOST

Atomic, Molecular, and Optical (AMO) sciences encompass significant areas of human activity directly impacting quality of life through applications in health, communication, navigation, metrology, and space sciences. Center for Atomic, Molecular, and Optical Sciences & Technologies (CAMOST) has been established to address key challenges in frontier areas of AMO science and technology of the 21st century. One of the major objectives of CAMOST is to facilitate exchange of information, collaboration and consolidate the cross-fertilization of ideas relevant to the frontier areas of AMO science and technologies by allowing researchers from institutions pan-India to communicate and collaborate with each other under the aegis of CAMOST.

Vision

Inspire tangible solutions to frontier problems in AMO Science & Technologies through innovative research initiatives in basic and applied science domains.

Mission

To advance AMO Sciences & Technologies by:

- Developing innovative solutions to frontier problems of AMO quantum Science and Technology
- Contributing to solving key problems in atmospheric, space, and bio sciences
- Fostering human resources to meet 21st century challenges in AMO Quantum Sciences and Technologies

Thrust Areas

- Ultrafast dynamics in atoms and molecules
- Quantum communication and Quantum technology applications
- Cold plasma applications for food processing and water treatment
- Laboratory astrophysics, Laboratory astrochemistry, and Atmospheric sciences
- Optical tweezers for biomedical applications
- Single molecule magnetism for high-density data storage
- Quantum chemistry & Statistical mechanics
- High technology devices

Organizational Structure

Administrative Advisory Council

K. N. Satyanarayana (Director, IIT Tirupati)
K. N. Ganesh (Director, IISER Tirupati)
P. C. Deshmukh (Mentor and Convener)

Scientific Advisory Council

Dilip Angom (PRL, Ahmedabad)
E. Krishnakumar (RRI, Bangalore)
C. P. Safvan (IUAC, New Delhi)
Dmitry Budker (JGU Mainz & UCB)
John Costello (Dublin City University)
Bhanu Pratap Das (Tokyo Institute of Technology)
S. T. Manson (Georgia State University)
Ravindra Kumar (TIFR, Mumbai)
Roland Wester (University of Innsbruck)
Jan Michael Rost (MPI for Complex Systems)

Core Administrative Members

Arijit Sharma (Coordinator, IIT Tirupati)
S. Sunil Kumar (Coordinator, IISER Tirupati)
Koteswara Rao, HoD Physics, IIT Tirupati (Ex-Officio member)
G. Ambika, Chair Physics, IISER Tirupati (Ex-Officio member)

Principal Investigators

IIT Tirupati:

Arijit Sharma	Arun K. Manna
Debashish Mondal	N. N. Murty
P. C. Deshmukh	Rajib Biswas
Reetesh K. Gangwar	Swapnil Bhuktare
Vijaya K. Gurugubelli	Vinay P. Majety

IISER Tirupati:

Padmabati Mondal	Raghunath O. Ramabhadran
Soumit S. Mandal	S. Sunil Kumar

Adjunct Members:

Dhananjay Nandi (IISER Kolkata)
G. Aravind (IIT Madras)
Koushik Saha (IIT Dharward)
R. Hari Varma (IIT Mandi)
Jobin Jose (IIT Patna)
Rajesh K. Kushawaha (PRL Ahmedabad)
S. Sivakumar (KREA University)
Sivarama Krishnan (IIT Madras)
Ramachandra Rao Yalla (Uni. Hyderabad)
G. V. Pavan Kumar (IISER Pune)

Program

16:00 – 16:06 Welcome
Professor P. C. Deshmukh (Mentor and Convener, CAMOST)

16:06 – 16:18 Directors' Address
Professor K. N. Satyanarayana, Director, IIT Tirupati
Professor K. N. Ganesh, Director, IISER Tirupati

16:18 – 16:23 *On the Origin of CAMOST*
Professor C. P. Safvan, IUAC, New Delhi (President, Indian Society of Atomic and Molecular Physics)

16:23 – 16:45 Video & Brochure release and INAUGURAL SPEECH
Dr. Arabinda Mitra, Scientific Secretary, Office of the Principal Scientific Advisor to Government of India

16:45 – 17:00 *Atomic collisions with meso-nano-bio systems and interdisciplinary science*
Professor Lokesh Tribedi, TIFR, Mumbai

17:00 – 17:15 *Recent development in quantum technologies*
Dr. Aditi Sen De, HRI, Prayagraj

17:15 – 17:30 *Physics with Extreme Light*
Professor G. Ravindra Kumar, TIFR, Mumbai

17:30 – 17:40 Aspirations by program coordinators
Dr. Arijit Sharma (IIT Tirupati)
Dr. S. Sunil Kumar (IISER Tirupati)

17:40 – 17:46 Aspirations by adjunct members
Dr. Koushik Saha (IIT Dharward)
Dr. Jobin Jose (IIT Patna)
Dr. Rajesh Kushawaha (PRL, Ahmedabad)

17:46 – 17:56 Remarks
Members of the Scientific Advisory Council

17:56 – 18:00 Vote of Thanks
Professor G. Ambika, Chair Physics, IISER Tirupati