

## About CSIR

The Council of Scientific & Industrial Research (CSIR), known for its cutting edge R&D knowledgebase in diverse S&T areas, is a contemporary R&D organization. Having a pan-India presence, CSIR has a dynamic network of 38 national laboratories, 39 outreach centers, 3 Innovation Complexes and 5 units. CSIR's R&D expertise and experience is embodied in about 4600 active scientists supported by about 8000 scientific and technical personnel.

## CSIR-AMPRI, Bhopal an Overview

<CSIR-Advanced Materials and Processes Research Institute (CSIR-AMPRI), Bhopal is a constituent laboratory of Council of Scientific and Industrial Research (CSIR), New Delhi. The Institute was started in the year 1981 as a Regional Research Laboratory (RRL) and renamed as Advanced Materials and Processes Research Institute (AMPRI) from March 2007 onwards by the CSIR to give more visibility for carrying out focussed research.

## About Bhopal

Bhopal is the capital of Madhya Pradesh. Also known as the city of Lakes for its various natural as well as artificial Lakes. It is one of the cleanest & greenest city in India. The city is considered as the jewel of Madhya Pradesh. A rich history and very interesting culture has endowed quite some seen to Bhopal. Tourist places like *Bhimbetka Caves, Bhojpur Temple, Birla Temple, Sanchi Stupa, Tajul Masjid, State Museum, Bharat Bhawan, Science Centre, Gohar Mahal, Shaurya Smarak* constitute an interesting mix of destinations to visit. The Upper Lake, created by Raja Bhoj in the 11<sup>th</sup> century is the oldest man - made lake in India.



## About JIGYASA

As a significant milestone event, Council of Scientific and Industrial Research (CSIR) has signed the Memorandum of Understanding (MoU) with Kendriya Vidyalaya Sangthan (KVS) on 06 July 2017 to launch "Jigyasa" programme in the gracious presence of Dr. Harsh Vardhan, Minister of Science & Technology, Earth Sciences, Environment, Forests and Climate Change and Shri Prakash Javadekar, Minister of Human Resource Development. Jigyasa envisages a wide-ranging Scientist-Student Connect programme as per various models proposed in the MoU.

On March 13, 2020, an MoU was signed between Council of Scientific & Industrial Research (CSIR) and Navodaya Vidyalaya Sangathan (NVS) to implement JIGYASA.

The "JIGYASA" aims to inculcate the culture of inquisitiveness on one hand and scientific temper on the other, amongst the school students and their teachers. The Programme is expected to connect 1151 Kendriya Vidyalayas and 661 Navodaya Vidyalayas with 38 National Laboratories of CSIR targeting 100,000 students and nearly 1000 teachers annually.

The JIGYASA program enables the students and teachers to practically live the theoretical concepts taught in science by visiting CSIR laboratories and by participating in mini-science projects under following modules:

- Laboratory Foundation Day Celebrations
- Sponsored Programmes for School Children
- CSIR Foundation Day (26 September)
- Important Awareness Days
- National Technology Day
- Lab specific activities / Onsite experiments
- Visits of Scientists to Schools / Outreach Programme
- KVs Hosted within CSIR
- Popular Lecture Series / demonstration programme at School
- Student Apprenticeship Programme
- Science Exhibitions
- Projects of National Children's Science Congress
- Science and Maths Club
- Scientists as Teachers and Teachers as Scientists
- Teachers' Workshop
- Student Residential Programme
- Publication of Student articles in CSIR Journals
- Summer Vacation Programmes

# NATIONAL SCIENCE TEACHERS WORKSHOP

(Virtual Mode)

on

**"Recent Innovations in Science and  
Technology"**

**March 9-10, 2021**

Under

**CSIR-JIGYASA PROGRAMME**



Organized by

CSIR- Advanced Materials and Processes Research  
Institute (AMPRI), Bhopal, 462026



## Programme Schedule

9<sup>th</sup> March, 2021

10:00 AM – 11:00 AM	Inauguration ceremony
11:00 AM – 12:00 PM	Session I
12:00 AM – 01:00PM	Session II
01:00 PM - 02:00 PM	Lunch break
02:00 PM - 03:00 PM	Session III
03:00 PM - 04:00 PM	Session IV
04:00 PM - 05:00 PM	Session V

10<sup>th</sup> March, 2021

10:00 AM – 11:00 AM	Session VI
11:00 AM – 12:00 PM	Session VII
12:00 AM – 01:00PM	Session VIII
01:00 PM - 02:00 PM	Lunch
02:00 PM - 03:00 PM	Session IX
03:00 PM - 04:00 PM	Session X
04:00 PM - 05:00 PM	Valedictory ceremony

### Contact us :

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Programme

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### Patron

#### **Dr. A. K. Srivastava**

Director, CSIR-AMPRI, Bhopal

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Dr. S. A. R. Hashmi, Chief Scientist

Dr. D. P. Mondal, Chief Scientist

Dr. A. K. Singh, Chief Scientist

Dr. P. Asokan, Chief Scientist

### Coordinator

Dr. Manish Mudgal, Sr. Principal Scientist

### Organizing Secretary

Dr. Satanand Mishra, Senior Scientist

Dr. Archana Singh, Principal Scientist

## Organizing Committee

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Er. R. S. Ahirwar, Senior Principal Scientist  
Dr. Mohd. Akram Khan, Senior Principal Scientist  
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Er. H. N. Bhargava, Senior Principal Scientist  
Dr. Deepti Mishra, Senior Principal Scientist  
Dr. S. Murali, Senior Principal Scientist  
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Mr. Prabhat Kumar Baghel, Principal Scientist  
Mr. R. K. Bharliya, Principal Scientist  
Dr. Raju Khan, Principal Scientist  
Dr. Gaurav Kumar Gupta, Principal Scientist  
Dr. N. Sathish, Principal Scientist  
Dr. Sarika Verma, Principal Scientist  
Dr. Neeraj Dwivedi, Principal Scientist  
Dr. Meraj Ahmed, Principal Scientist  
Dr. Sanjay K. Panthi, Principal Scientist  
Mr. Abhishek Pandey, Senior Scientist  
Mr. Venkat A. N.Ch., Scientist  
Dr. Chetna Dhand, Senior Scientist  
Dr. Pradeep Gangwar, Senior Scientist  
Dr. Rajesh Patidar, Senior Scientist  
Mr. Sriram Sataihya, Scientist  
Dr. Tilak Chandra Joshi, Scientist  
Dr. Mohammad Ashiq, Scientist  
Dr. Surender Kumar, Scientist  
Mr. Mohit Sharma, Scientist  
Mr. Nikhil Rajendra Gorhe, Scientist  
Dr. Manoj Kumar Gupta, Scientist  
Dr. Shabi Thankaraj Salammal, Scientist  
Mrs. Medha Mili, Scientist  
Mr. Narendra Singh, Scientist  
Mr. Shiv Singh Patel, Scientist  
Dr. Shiv Singh, Scientist

### Technical Team

Dr. R. K. Soni, Principal Technical Officer  
Dr. Rajeev Kumar, Inspire Faculty  
Sh. Anoop Khare, Technical Officer  
Sh. Deepak Kashyap, Technical Officer  
Sh. Mohammad Shafiq, Technical Officer  
Ms. Shivani Pandey, Research Scholar  
Sh. Aajid Khan, Research Scholar  
Mr. Tanmay Sardar, Trainees  
Ms. Diksha Tatte, Trainees

## Scope of Workshop

Motivational and interactive sessions among scientists and teachers with aim to create scientific temper among teachers in the area of recent innovations in science and technology under “CSIR-Jigyasa Programme”

A good portion of an academician’s life and work is teaching. Indeed, teaching is one of the primary goal of a school. Most faculty members would like to motivate and inspire students to learn deeply in their courses. Still, it is well known, some teachers are more effective than others. This workshop is for effective interaction of teachers with each other as well as with scientists to become a effective teacher.

It is well known quote that A good teacher can inspire hope, ignite the imagination and instill a love of learning. One cannot be an effective teacher for a subject without having a decent understanding and knowledge of that subject. However, even with understanding of the subject, one may not be an effective teacher. The aim of this workshop is to help faculty, or aspiring faculty, who has a decent understanding of the subject matter to become effective teachers.

This workshop will discuss key concepts and practical aspects of scientific knowledge which are widely accepted and implemented for development of school students.

The workshop sessions will employ a mixture of presentation and the virtual laboratory demonstrations. A reading will be given for each session, and after a short presentation on the topic, laboratory demonstrations will be conducted. Participating teachers will be engaged in experiments. In some sessions, we will take course descriptions of some of our courses and analyze them. It is hoped that participants will apply some of the techniques discussed in the workshop in their own teaching and share the experience with their class.

