

# 10TH ANNUAL RESEARCH MEET

HOMI BHABHA CENTRE FOR SCIENCE EDUCATION

25th May - 29th May 2020

## DAY 1 | MAY 25TH

**10:15 am - 10:30 am** Inaugural Address by Director, HBCSE

**10:30 am - 10:50 am** Observation and Experiment: Debates in Science  
(Sarita Devi)

**10:50 am - 11:10 am** Understanding the Significance of History and Philosophy of Science in Teaching and Learning Science Through the Lens of History of Atomism  
(Maithily K)

**11:20 am - 11:40 am** From Cell to Ecological Pyramid: How Centralized Thinking and Dominance Hierarchy Pervade in Biological Discourse  
(Charudatta Navare)

## DAY 2 | MAY 26TH

**10:30 am - 10:50 am** Agency building and Early Research Exposure: A study in an Indian Undergraduate Science Education Program  
(Deepika Bansal, Deepa Chari and Savita Ladage)

**10:50 am - 11:10 am** Integrating Psycho-Social Needs of Refugee Girl Children in Educational Spaces: A Case Study of Rohingya Girls Settled in Hyderabad  
(Debanjali Saha)

**11:10 am - 11:30 am** Narratives of Women's Experiences in Science Popularization Careers  
(Mayuri Pawar, Deepa Chari)

**11:40 am - 12:40 pm** *Panel Discussion*

Lessons from the Pandemic: Revealing the Perennial Faultlines Within Education  
(Dr. Murali Krishna Mallepaku, Mr. Sourav Shome, Prof. Nagarjuna G)

## DAY 3 | MAY 27TH

**10:30 am - 10:50 am** Teacher Interactions with a Vigyan Pratibha Learning Unit  
(Chaitanya Ursekar)

**10:50 am - 11:10 am** Undergraduate Biology Students Illustration of Experimental Design of Simple Model Systems  
(Meena Kharatmal, Mayur Gaikwad, Aashutosh Mule)

**11:20 am - 11:40 am** Using the TSPCK framework to improve the content knowledge of pre-service teachers  
(Narendra Deshmukh)

**11:40 am - 12:00 pm** Exploring small-group learning in PBL undergraduate Chemistry laboratory  
(Sujatha Varadarajan)

## DAY 4 | MAY 28TH

**10:30 am - 10:50 am** Investigating Learners' Feedback Seeking Behavior and Its Role in the Development of Representational Competence  
(Narsimha Swamy K L)

**10:50 am - 11:10 am** Unpacking Collaborative Uncertainty Management Processes of Learners in the Context of Engineering Design  
(Navneet Kaur)

**11:10 am - 11:30 am** Exploring the Use of Stories and Narratives of Scientific Discoveries to Teach NOS to Middle School  
(Punam Medh)

**11:30 am - 11:50 am** Aristotle's Laws of Thought to Build Cognitive Flexibility in STEM  
(Archana)

**12:00 pm - 01:00 pm** *Panel Discussion*  
Ethical Practices in Education Research  
(Shikha, Dr. Reema Mani, Dr. (Miss) A Mani)

## DAY 5 | MAY 29TH

**10:30 am - 10:45 am** GIT: An introduction to version control

(Soham Dighe)

**10:45 am - 11:05 am** Resonating Cavity in Humans : An Acoustical Approach

(Anirvan Gupta, Nivedita Azad)

**11:05 am - 11:25 am** Incubator: Incubating your ideas and sharing knowledge

(Vinodkumar Sonawane)

**11:30 am - 11:50 am** Atmospheric Pressure: Common misconceptions and plausible cause

(Tripti Bameta)

**11:50 am - 12:20 pm** Rough Concept Inventories

(A Mani)

## POSTER PRESENTATIONS

Impact of Strengthening Student Voice and Expression on students' academic results in STEM subjects  
(Gaurav Siddharth)

Simulation Based Learning (SBL) in Chemistry: Student Understanding of Acids and Bases  
(Shanize Forte, Nathan Turner, Tanya Gupta, Sanjay Chandrasekharan, D.P. Karnam)

Experiences Piloting Design, Technology and Innovation as a Subject in TSWREIS School with a Student-Led Model  
(Abhishek Dey, Shramanth Rajarathnam, Eshwar Bandi)

Exploring teachers' understanding of students' sexuality and sexual knowledge  
(Panchami Jose)

Microorganisms at our Doorstep! - Exploring Students' Ideas about Micro-Organisms Through A Project Based Learning Unit  
(Meena Kharatmal)

What would that cell look like?: Findings from clay-modeling activities with teachers and students  
(Charudatta Navare, Chaitanya Ursekar, Joseph Salve)

*Catch the poster presenters live on Wednesday, 27th May  
02:00 pm - 04:00 pm  
Links will be available at <https://arm.hbcse.in> during the ARM  
week*