



January 3 - 6, 2025

V. G. Kulkarni Auditorium, HBCSE

Friday, Jan 3, 2025

8:45 - 9:15	Registration at G2, Main Building	
9:15 - 9:30	Welcome by Centre Director and Co-Convenors	
9:30 - 10:30	Keynote address Chair: <i>Amab Bhattacharya</i>	Patterns in mathematics and nature and their uses in pedagogy Manjul Bhargava
10:30 - 11:00	Tea	
11:00 - 12:00	Invited Talk Chair: <i>Amab Bhattacharya</i>	Biology Education for sustainable living in a fast changing world: how, what and how much to teach? L. Shashidhara
12:00 - 13:00	Contributed Talks Session I Chair: <i>Shweta Naik</i>	Embodied Pedagogy in Mathematics Teacher Preparation - Insights from Cases Shabari Rao
		Not so 'mechanical': Learnings and Insights from High School Science Teacher Workshops on Mechanics Anish Mokashi
		Evaluating Project-Based Learning: Effectiveness and Challenges in Middle School Science Education in Bihar Mrinal Jyoti Baruah
13:00 - 14:00	Lunch	
14:00 - 15:00	Contributed Talks Session II Chair: <i>Navaneetha M. R.</i>	Unlocking the Complexity of Biological Systems Through Analogy-Based Approach Ishika
		Exploring Undergraduate Students' Interpretation of Mis-leading Graphs in Public Media: A Case Study Debasmita Basu
		Impact of Science Communication on STEM Aspirations of Tribal Girls in Bastar Ruchika Dhruwey
15:00 - 15:30	Tea	
15:30 - 16:10	Contributed Talks Session III Chair: <i>Mukul Mhaskey</i>	A Survey of Barriers in STEM Learning in Higher Education Among Rural Youth in India Aasidhara Darvekar
		Effect of STEAM-Based Learning on Mathematical Creativity of Middle School Students Tarun Kumar Tyagi
16:10 - 16:30	Presentations from Teacher Organizations Chair: <i>Adithi Muralidhar</i>	Mathematics Teachers' Association (MTA), India
16:30 - 17:30	Memorial Session for Prof. H. C. Pradhan	
17:30 - 18:45	Invited Talk (online) Chair: <i>Anwesh Mazumdar</i>	Facilitating thinking and learning in and beyond the physics classrooms using research-based approaches Chandralekha Singh
18:45 - 19:30	Free time	
19:30 onwards	Gala Dinner at HBCSE	



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Saturday, Jan 4, 2025

9:30 - 10:30	Invited Talk Chair: <i>Sathish C. G.</i>	Chemistry Education Research (CER) based Capacity Building Programmes for Chemistry Teachers at UG Level Savita Ladage
10:30 - 11:00	Tea	
11:00 - 12:00	Invited Talk Chair: <i>Aniket Sule</i>	Astronomy Education Research: Past, present and future challenges Urban Eriksson
12:00 - 13:00	Contributed Talks Session IV Chair: <i>Akshat Singhal</i>	Status of Astronomy Education in India: A Baseline Survey Moupiya Maji
		Understanding Different Facets of Atal Tinkering Laboratory: A Preliminary Study Priyamvada Pandey
		Community of Practice Focused Teacher Education Programme for UG Educators: Building Capacity Using Inquiry-Based, Active Learning, and Assessment-Centred Strategies for Classrooms and Labs Asim Auti/ Neeraja Dashaputre
13:00 - 14:00	Lunch	
14:00 - 15:00	Poster Presentations – Group I Venue: <i>Main Building Lobby</i>	
15:00 - 15:30	Tea	
15:30 - 16:30	Contributed Talks Session V Chair: <i>Rajasree Kundu</i>	Emotional Engagement in STEM Bhumika Jain
		Nature of Science (NOS) in Science Curriculum: A Critical Analysis of Secondary Science Textbooks Astha Saxena
		Complexity and Curriculum: The Importance of Connections in Mathematics and Science Education Ashwin Vaidya
16:30 - 18:00	Panel discussion Moderator: <i>Mashood K. K.</i>	Bridging the gap between research and education <i>Panelists:</i> Uday Maitra, Mahan Mj, Swati Patankar and P. Ramadevi
18:30 - 19:30	Indian Classical Music program	
20:00 - 21:00	Dinner at HBCSE	



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Sunday, Jan 5, 2025

9:30 - 10:30	Invited Talk (online) Chair: <i>Ankush Gupta</i>	Investigating student reasoning to achieve our educational goals Vicente Talanquer
10:30 - 11:00	<i>Tea</i>	
11:00 - 12:00	Invited Talk Chair: <i>G. Nagarjuna</i>	From Einstein to Enigma with CCL Manish Jain
12:00 - 13:00	Contributed Talks Session VI Chair: <i>Priyadharshni Elangaivendan</i>	Enhancing STEM Education through the Practice-Based Professional Development for Secondary STEM Teachers in Bhutan Reeta Rai
		Reflective Practices in Science Teaching: A Way to Transform Child's Experience into Learning Rashmi Mishra
		Constructive Pedagogy and Student Engagement: A Study of the Grade 3 Small Science Curriculum Akshat Singhal
13:00 - 14:00	<i>Lunch</i>	
14:00 - 15:00	Poster Presentations – Group II Venue: <i>Main Building Lobby</i>	
15:00 - 15:30	<i>Tea</i>	
15:30 - 16:45	Contributed Talks Session VII Chair: <i>Nishtha</i>	Making a Case for Representing Science Explanations as Flow Charts for Revealing their Logical Flow Structure Gautam Karve
		Avenues for Eliciting Proving-Related Processes in Nationalised Middle Grades Mathematics Textbooks of India Neha Verma
		A Case Study of Cyanotype Techniques as a Pedagogical Tool for Teaching Chemistry Bhooma Bhagat
		How Large is That Number?: Understanding How People From a Social Science Institute Estimate Large Numbers Maitrayee Pan
16:45 - 17:45	Contributed Talks Session VIII Chair: <i>Saurabhee Huli</i>	Inception and Development of Astronomy Lab at Vikram A Sarabhai Community Science Centre Avik Dasgupta
		Reframing "Gap" as "Distance" in Responding to Students' Mathematical Talk S Jayasree
		Three-Dimensional Learning Approach to High School Organic Chemistry Through Flipped and Collaborative Classrooms Athavan Alias Anand Selvam
17:45 - 19:00	Free time	
19:00 onwards	Banquet Dinner at Jewel of Chembur (Assemble at gate at 19:00 hrs for a ride to location)	



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Monday, Jan 6, 2025

9:30 - 10:30	Invited Talk Chair: <i>Deepa Chari</i>	Advancing Biology Education in India: Integrating Innovation, Inquiry, and STEM Approaches for the Future Samiksha Raut
10:30 - 11:00	<i>Tea</i>	
11:00 - 12:00	Invited Talk Chair: <i>Mashood K. K.</i>	From low-cost experiments to high-tech applications: Highlights of German Chemistry education Research on Curriculum Innovation Amitabh Banerji
12:00 - 13:00	Contributed Talks Session IX Chair: <i>Vishrut Patel</i>	Development of Academic Laboratories in Chemical Engineering Simulation and Process Control at IIT Ropar: Achievements and Learnings Asad Sahir
		Differing Approach In Design Of Teaching Learning Material On Soil For Students with Different Backgrounds Sreeja M
13:00 - 14:00	<i>Lunch</i>	
14:00 - 15:00	Presentations from Teacher Organizations Chair: <i>Aaloka Kanhere</i>	Indian Association for Physics Teachers (IAPT) Association for Chemistry Teachers (ACT) Association for Teachers in Biological Sciences (ATBS)
15:00 - 15:30	<i>Tea</i>	
15:30 - 16:30	Closing Remarks	
20:00 - 21:00	Dinner at HBCSE	

Post Conference Workshops

Tuesday, Jan 7, 2025

9:15 - 9:45		Registration for Workshop 1 at G1, Main Building	Registration for Workshop 2 at G1, Olympiad Facility
9:45 - 13:00	Workshops (<i>Tea break at 11:30</i>)	Workshop 1 Venue: G1, Main Building Integrating service-learning as a curricular reform to engage students with community needs Samiksha Raut	Workshop 2 Venue: G1, Olympiad Facility Hands-on Electrochemistry for Classroom Krishnendu Kundu
13:00 - 14:00	<i>Lunch</i>		
14:00 - 15:00	Workshops		Workshop 2 Venue: G1, Olympiad Facility Hands-on Electrochemistry for Classroom (contd.) Krishnendu Kundu