



International Conference on STEM Education: Innovative Responses to Adaptations, Opportunities, and Challenges in STEM Education 22 - 25 December, 2025 Samtse College of Education, Royal University of Bhutan

Venue:

Convention Hall, Royal University of Bhutan, Motithang, Thimphu Conference Opening and Academic Sessions: 22 – 23/12/2025



Programme Schedule

DAY 1 - 22 December 2025

9:00-9:30 Registration

9:30 Arrival of Chief Guest

9:30–10:00 Marchang, Zhapten, Cultural items

10:00-10:10 Opening

10:10-10:30 Video Presentation About SCE

10:30-10:40 Welcome Address - President

10:40-11:00 Address by the Chief Guest

11:00-11:30 Tea Break

11:30-11:50 Address by Dasho Jigme Tenzing, GovTech Agency

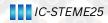
11:50-12:15 Keynote 1 - Nawang Norbu: Educating in a Turbulent World.

12:15-12:25 Q&A

12:25–12:50 **Keynote 2 – Manish Jain**: Make School Education Meaningful and Engaging: Treading the AI/Tech Double Edge Sword to Overcome the Challenge of Distraction and Disengagement.

12:50-13:00 Q&A

13:00-14:00 Lunch



14:00-15:30 Concurrent Presentations

Group 1

Karen François -STEM Education in Europe: What 25 Years of Policy Tell Us.

Sanjeev Ranganathan- Addressing Ethical Needs in Higher Education Through
Design and Implementation a case study of a bachelor's program in rural India.

Norbu Wangdi- Affordances and Barriers to Technology Use in Bhutanese
Secondary School Science Classrooms.

Sonam Zangmo- Enhancing Grade 10 Students' Understanding of Biological Concepts Through Hands-On Activities.

Moderator: Bal Bdr Mongar Rapporteur: Reeta Rai

Group 2

Saranya Barathi- A Values Driven Approach to Foster Equity and Inclusion Through STREAM Education from Rural Tamil Nadu, India.

Pushpa Thantry- Mathematics teacher training at scale - the Ganitha Kalika Andolana (GKA) model.

Sherab Tenzin- Effect of 7E learning cycle on enhancing grade twelve students' Conceptual Understanding of Gene Expression.

Sonam Choden- Transforming Organic Chemistry Education through a Puzzle-Based Approach.

Moderator: Ugyen Pem **Rapporteur**: Karma Utha

Group 3

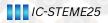
Gomathi Shridhar- Formative Assessment Activities for the Chemistry Classroom-An Overview,

Pratiksha Rajadhyaksha - Chemistry Lab: Text book to Real Life Learning Experiences,

Sushma Pradhan- Integrating the CK-12 Platform in Bhutanese STEM Classrooms. **Tashi Dawa** -Using ChatGPT as an assessment tool in education: A systematic literature review of practices and limitations,

Moderator: Kinley Seden **Rapporteur**: Kinzang Dorji

15:30–16:00 Tea Break 16:00–16:30 Plenary Reporting by Rapporteurs 16:30–17:00 Closing Remarks – Kuenzang Gyeltshen, DAA



DAY 2 - 23 December 2025

9:00-9:25 Registration

9:25-9:35 Welcome Remarks - Kinley Sedey, DRIL

9:35–9:55 **Keynote 1 – Kezang Yangden**: Nature education: Building the foundations for scientific learning and curiosity.

9:55–10:15 **Keynote 2 – Tony Burner & Bodil Svendsen**: How do We Best Address Gifted Students in STEM?

10: 15 - 10: 35 Keynote 3 - Shiva Raj Bhattarai: Learning Science in Bhutan.

10:35-10:55 Q&A

10:55-11:30 Tea Break

11:30-13:00 Concurrent Presentations

Group 1

Priyadarshini Muthukrishnan -Double-Helix Model of Thinking Framework for Developing Creativity and Innovation.

Neal Apte Pineda- Foundational Learning in Digital Systems.

Sonam Dorji- Exploring Bhutanese Students' Perceptions of Flipped Classroom Instruction in Biology.

Reeta Rai- Implementation of OER-Based Educational Innovation for the Continuous Professional Development of Secondary Science and Mathematics Teachers in Bhutan.

Moderator: Kinzang Dorji

Rapporteur: Bijoy Hungmo Subba

Group 2

Sanjeev Ranganathan- Designing STEM Workshops: facilitating learning beyond theoretical knowledge towards skills and agency.

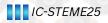
Ugyen Pem/ Karma Utha- Unravelling Newtonian Knots: An Investigation into Misconceptions in Physics in Bhutanese Secondary Schools.

Kinley Wangmo- Improving Grade Two Math Performance through Co-Teaching in an Inclusive Classroom.

Sonam Phuntsho-The Effectiveness of Using GeoGebra for Grade Ten Students in Learning Graphs of Linear Inequalities.

Kazi K. Shahidullah - Girls in STEM Education: Prospect and Challenges in Bangladesh

Moderator: Kezang Choden Rapporteur: Tashi Pelden



Group 3

Vinodkumar C. Sonawane- Sharing learning experiences of school teachers in STEM workshops at HBCSE, TIFR, SSRD group.

Purna Bdr. Subba- A Place-Based STEM Education Approach to

Ethnomathematics: Exploring the Geometry, Design, and Ecological Knowledge in Woven Bamboo Doko of Southern Bhutan.

Pema Chogyel - Investigating how curriculum, learning environment, and self-efficacy influence biology education for middle secondary students in Bhutan.

Bijoy Hangmo Subba - Development of a constructivism based instructional model to enhance grade IX Bhutanese students' metacognition and mathematical problem-solving skills.

Moderator: Ransingh Tamang **Rapporteur**: Ugyen Dorji

13:00-14:00 Lunch

14:00-15:30 Trade Show

15:30-16:00 Tea Break

16:00-16:30 Plenary Reporting by Rapporteurs

16:30-16:40 Certificate & Token Presentation

16:40-17:10 Vote of Thanks - Kinley, Conference Coordinator

18:00-21:00 Conference Dinner

DAY 3 - 24 December 2025 (Cultural Tour - Paro Taksang).