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

G**roup 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.
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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).