

International Conference on Science Engineering and Technology
3rd ICSciEnTec 2025 – Inaugural Ceremony Schedule

Venue: Namgay Heritage, Thimphu, Bhutan

Organized by: College of Science and Technology and Construction Development Corporation Limited

Day 1 (28th April 2025) – Registration of Poster Presenters

Date 2: Technical Sessions

Room 1

Track 1: Electrical, Power Systems and Renewable Energy

Session No: R1 A

Session Chair: Dr. Sangey Passang, DRIL, CST

Total allocated time is inclusive of time for question-and-answer session.

Time	Paper Title	Authors	Affiliation
2:00 PM – 2:30 PM	Impact Assessment of Renewable Energy Integration: A Case Study on Sephu Solar PV Plant Integration	Samten	Bhutan Power System Operator, MoENR, RGoB, Bhutan
2:30 PM – 3:00 PM	Investigation of Techno-Economic Feasibility of Institutional Energy Generation through Rooftop Solar Photovoltaic - A Case Study	Malesh Shah	Katmandu University , Nepal
3:00 PM – 3:30 PM	Efficacy Study of a Pilot Installation of an On-line Partial Discharge Measurement Sensor at KHP Unit 2 Generator	Thinley Dorji	Druk Green Power Corporation Ltd. Bhutan
3:30 PM – 4:00 PM	Tea Break		

Room 2

Track 1: Electrical, Power Systems and Renewable Energy

Session No: R2 A

Session Chair: Dr. Tashi, Dean Academic Affairs, CST

Total allocated time is inclusive of time for question-and-answer session.

Time	Paper Title	Author/s	Affiliation
2:00 PM – 2:30 PM	Dynamics of Electricity Demand: Analysis and Forecasting for Bhutan	Ugyen Chopel	MoENR
2:30 PM – 3:00 PM	The Case Study for the Analysis of the Failure of Lightning (Surge) Arrester installed at 400kV, Gas Insulated Switchgear (GIS) System, Tala Hydropower Plant by Using MiPower Software	Thinley Dorji	DGPC
3:00 PM – 3:30 PM	Optimal Capacitor Placement for Minimizing Power	Chimmi Zangpo	Jigme Namgyal Engineering College, RUB, Bhutan
3:30 PM – 4:00 PM	Tea Break		

Room 1 (Session B)

Track 2: Civil, Structural and Environment Engineering

Session No: R1 B – Session Chair: Mr. Tshewang Nidup, CST/ETH Zurich, Switzerland

Total allocated time is inclusive of time for question-and-answer session.

Time	Paper Title	Author/s	Affiliation
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4:00 PM – 4:30 PM	Evaluating the Seismic Risk of Reinforced Concrete buildings of colleges under Royal University of Bhutan using RVS method - A Research to Policy Making	Chimi	College of Science and Technology, RUB, Bhutan
4:30 PM – 5:00 PM	Basin-scale Sediment Transport for Sustainable Sand Mining: A Case Study in Punatshangchhu River Basin, Bhutan	Ugyen Phuntsho	Engineer, MoIT

Room 2 (Session B)

Track 2: Artificial Intelligence, Machine Learning, Communication Engineering

Session No: R2 B

Session Chair: Mr. Kamal Kr. Chapagai, Lecturer, CST

Total allocated time is inclusive of time for question-and-answer session.

Time	Paper Title	Author/s	Affiliation
4:00 PM – 4:30 PM	Short-Term Load Forecasting in Thimphu and Phuentsholing Regions using Machine Learning and Deep Learning Techniques	Jigme Namgyal	College of Science and Technology, RUB, Bhutan
4:30 PM – 5:00 PM	Towards a Responsible AI Governance Framework: Lessons from Policy Implementation in Emerging Economies	Shazin Mat Taib	Malaysia

Date 3: 30th April 2025

Room 1 Session C

Track 2: Electrical, Power Systems and Renewable Energy

Session No: R1 C

Session Chair: Mr. Samten, Engineer, BPSO

Total allocated time is inclusive of time for question-and-answer session.

Time	Paper Title	Author/s	Affiliation
9:00 AM – 9:30 AM	Analysis of Bhutan's Long-Term Energy Demand Projection Using the End-use methodology	Thinley Norbu	Bhutan Power Corporation Ltd, Bhutan
9:30 AM – 10:00 AM	Performance Evaluation of Packed Bed Energy Storage System: A Simulation Study	Malesh Shah	Katmandu University, Nepal
10:00 AM – 10:30 AM	Electric Vehicle Charging Infrastructure in Bhutan: Performance Analysis, User Experiences, Challenges, and Future Prospects	Roshna Gurung	Jigme Namgyal Engineering College, RUB, Bhutan
10:30 AM – 11:00 AM	Tea Break		

Room 2 (Session C)

Track 2: Artificial Intelligence, Machine Learning, Communication Engineering

Session No: R2 C – Session Chair: Dr. Ugyen Dorji Asst. Professor, CST

Total allocated time is inclusive of time for question-and-answer session.

Time	Paper Title	Author/s	Affiliation
9:00 AM – 9:30 AM	Design, Fabrication, and Evaluation of a 3D-Printed Cosmetic Prosthesis for Partial Hand Amputees Within a Kathmandu Innovation Ecosystem	Ashish Thapa	Katmandu University, Nepal
9:30 AM – 10:00 AM	Predictive Analytics for Identifying Surface Water Sources for Domestic Use in Phuentsholing, Bhutan	Phurpa Wangmo	College of Science and

			Technology, RUB, Bhutan
10:00 AM – 10:30 AM	A Hybrid Transformer-Based Framework for Classifying Clinically Actionable Genetic Mutations in Cancer	Sonam Eyden	College of Science and Technology, RUB, Bhutan
10:30 AM – 11:00 AM	Tea Break		

Room 1 (Session D)

Track 1: Electrical, Power Systems and Renewable Energy

Session No: R1 D

Session Chair: Mr. Kinley Jamtsho, Engineer, MoENR

Total allocated time is inclusive of time for question-and-answer session.

Time	Paper Title	Author/s	Affiliation
11:00 AM – 11:30 AM	Enhancing Middle Stream of Fluorocarbon Gas Management in Malaysia through AI-Driven Solutions	Nurul Nazleatul Najiha Mohd Nazif	Malaysia
11:30 AM – 12:00 PM	Review on Contemporary Heat Transfer Enhancement Technologies in Conventional Heat Exchangers	Malesh Shah	Katmandu University, Nepal
12:00 PM – 12:30 PM	ChatGPT: An Enabling Model for English Creative Writing in the Eleventh Grade	Dechen Lhamo	Ministry of Education and Skills Development
12:30 PM – 1:00 PM	Social Evaluation of an Improved Cookstove Intervention Program in Nepal - A Case Study	Sirapa Shrestha	Katmandu University, Nepal
1:00 PM – 2:00 PM	Lunch Break		

Room 2 (Session D)

Track 3 : Civil, Structural Engineering

Session No: R2 D

Session Chair: Dr. Cheki Dorji, President, CST

Total allocated time is inclusive of time for question-and-answer session.

Time	Paper Title	Author/s	Affiliation
11:00 AM – 11:30 AM	Density Profile of Bhutanese Fir and Hemlock Timber and its Significance in Structural Timber Engineering	Tshewang Nidup	ETH Zurich, Switzerland and CST, Bhutan
11:30 AM – 12:00 PM	Enhancing Flood Susceptibility Mapping through Multi-Criteria Decision-Making Techniques	Tashi Tenzin Dorji	College of Science and Technology, RUB, Bhutan
12:00 PM – 12:30 PM	Spatial and Temporal Analysis of Urban Heat Island effects in College of Science and Technology	Chhimi Gembo	College of Science and Technology, RUB, Bhutan
12:30 PM – 1:00 PM	The Road to Solar Drying: Identifying barriers and drivers for wider adoption of solar dryers in rural Bhutan	Noah Andreasson & Linda Lundevall	Lund University, Sweden
1:00 PM – 2:00 PM	Lunch Break		

Room 1 (Session 1E)

Track 1: Electrical, Power Systems and Renewable Energy

Session Chair: Mr. Namgay Tenzin, Chair, IEEE Subsection, CST

Total allocated time is inclusive of time for question-and-answer session.

Time	Paper Title	Author/s	Affiliation
2:00 PM – 2:30 PM	Analysis of Bhutan Power Systems Using PSSE Software	Kinley Jamtsho	MoENR
2:30 PM – 3:00 PM	Finite Element Method Based Technical Investigation of ICEV Chassis with EV Conversion Module	Sirapa Shrestha	Katmandu University, Nepal
3:00 PM – 3:30 PM	Journey of JB Solar in Bhutan	Karma Jigme	JB Solar Solutions
3:30 PM – 4:00 PM	Tea Break		
	Conference Concludes		

Room 2 (Session 2E)

Track 1: Electrical, Power Systems and Renewable Energy

Session No: Session Chair: Ms. Pema Lhazom, Engineer, CDCL

Total allocated time is inclusive of time for question-and-answer session.

Time	Paper Title	Author/s	Affiliation
2:00 PM – 2:30 PM	Design, Development and Performance Analysis of Solar-Electric Hybrid Dryer	Dechen Om	JNEC
2:30 PM – 3:00 PM	Comparative Analysis of Particle Swarm Optimization and Salp Swarm Algorithm in improving the Voltage Profile of IEEE 9 Bus System	Lhendup Thinley Dorji	JNEC
3:00 PM – 4:00 PM	Tea Break		
	Conference Concludes		