

Biography



Dr. Biraj Singh Thapa is an Associate Professor at the Department of Mechanical Engineering at Kathmandu University, Nepal. His area of specialization is renewable energy and green hydrogen. He believes that a strategic blend of these two sectors can change the future of the developing countries of South Asia, both economically and environmentally. His interest is in cross-disciplinary research and business development for industrial adaptation of green hydrogen technologies, contributing to energy transition and green growth. At present, he is focused on developing the energy ecosystem for the transition towards a low-carbon society in the Himalayan region. He is leading several projects to implement hydropower as a means of introducing green hydrogen as an alternative transport fuel and industrial products such as Green Fertilizer, Green Cement, Green Steel, and Synthetic Fuels for Nepal and the Region. He carries a long-term vision of developing Nepal as a hydrogen hub to contribute to the energy transition and green growth in South Asia.

Dr. Thapa has been awarded the prestigious Prime Minister National Talent Award 2025, and the Education Minister National Science, Technology and Innovation Award 2024.

He is serving as the Team Leader of the Green Hydrogen Lab at Kathmandu University and as a Co-lead for the HUC Thematic Working Group on Energy at ICIMOD. He is also an expert member of the Coordination Committee of the Nepal Government for the Green Hydrogen Policy. He is a Member of the Standing Committee on Studies at the World Energy Council and holds a Ph.D. degree from NTNU, Norway.