

**PERSONAL INFORMATION****Ms. ANITA PRAJAPATI**

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Sex: Female | Date of Birth: 13.06.1989 Nationality: Nepali

**WORK EXPERIENCE**

November 2018- till date	<b>Assistant Professor</b> Department of Mechanical and Aerospace Engineering, Institute of Engineering, Tribhuvan University Pulchowk, Lalitpur, Nepal Tel: 01-5442054  Major responsibility: Conduct theory and practical classes, supervise the thesis of Master's and Bachelor students, and be involved in academic research works
2024-till date	<b>Coordinator</b> Energy System Modelling and Analysis Unit (ESMAU) Center for Energy Studies, Institute of Engineering, Tribhuvan University Tel: 01-5532235  Major responsibility: Research activities, develop energy-related projects, energy modelling, and policy studies.
2013- 2018	<b>Mechanical Engineer</b> Department of Road, Ministry of Physical Infrastructure and Transport, Government of Nepal  Major responsibility is the procurement of equipment and spare parts for the Construction and maintenance of roads in Nepal, and supervision, maintenance, and commissioning of equipment and vehicles

**EDUCATION**

2016-2023	<b>Ph.D. in Mechanical Engineering</b> A sandwich project of the Institute of Engineering (IOE) and Norwegian University of Science and Technology (NTNU), under the scholarship of the Energy and Petroleum Programme (EnPe), NoRAD
2011-2013	<b>Master of Science in Renewable Energy Engineering</b> From Pulchowk Campus, Institute of Engineering affiliated to Tribhuvan University Located in Pulchowk, Lalitpur, Nepal Passed in First Division with Distinction with 82.2 % Principal Subjects: Introduction to Thermal Engineering, Fluid Mechanics with Energy Application, Economics and Energy Technology, Project Planning and Management, Energy Planning and Management– Elective I Solar PV Technology- Elective II

2007-2011	<p><b>Bachelors in Mechanical Engineering</b></p> <p>From Pulchowk Campus, Institute of Engineering affiliated to Tribhuvan University</p> <p>Located in Pulchowk, Lalitpur, Nepal</p> <p>Passed in First Division with Distinction with 80.68%</p> <p>Principal Subjects: Metallurgy, Thermodynamics, Heat Transfer, Mechanical Engineering Design, Renewable Energy Systems</p>
2006-2007	<p><b>Higher Secondary Education</b></p> <p>From Khwopa College an Undertaking of Bhaktapur Municipality affiliated to HSEB</p> <p>Located in Dekochha, Bhaktapur, Bagmati, Nepal</p> <p>Passed in First Division with 74.3%</p>
2005	<p><b>School Leaving Certificate</b></p> <p>From Vidhya Vikash Secondary Boarding School</p> <p>Located in Jagati, Bhaktapur, Nepal</p> <p>Passed in First Division with 79.1%</p>

## RESEARCH and PROJECTS

2025	<p><b>Preparation of Third Nationally Determined Contribution (NDC) of Nepal, focusing on the Energy Sector</b></p> <p>LEAP Modeller, United Nations Development Programme (UNDP)</p> <p>Major activity: Develop LEAP model for third NDC, target settings and policy analysis, update LTS LEAP model</p>
2022-2024	<p><b>Energy Consumption and Supply Situation in the Federal System of Nepal (Gandaki, Lumbini, Karnali, and Sudurpashchim)</b></p> <p>Energy System Modelling and Analysis Expert</p> <p>Water and Energy Commission Secretariat, Government of Nepal</p> <p>Major activity: Primary data analysis, develop provincial energy model and scenario analysis using MAED and TIMES</p>
2021-2022	<p><b>Preparation of Energy Sector Synopsis Report 2021/22</b></p> <p>Team Leader</p> <p>Water and Energy Commission Secretariat (WECS), Government of Nepal</p> <p>Major activity: Primary and secondary data collection and analysis, develop energy demand and supply synopsis of Nepal</p>
2021-2022	<p><b>Preparation of Nationally Determined Contribution (NDC) Implementation Plan</b></p> <p>Energy sector analysts</p> <p>Support for Enhancing Climate Finance in Nepal, Climate Action Enhancement Package (CAEP), United Nations Development Programme (UNDP)</p> <p>Major activity: Develop a national energy model, scenario analysis, develop an implementation plan for the energy sector</p>
2020-2021	<p><b>Developing a Long-Term Strategy (LTS) for Nepal (Net Zero Strategy)</b></p> <p>Energy System Modelling Expert</p> <p>United Nations Development Programs (UNDP)</p> <p>Major activity: National level energy system modelling and analysis using LEAP tool, develop strategic measures for Net Zero emission</p>
2021	<p><b>Study of Fuel Economy and Exhaust Emissions Measurement in LDVs and Policy Development and Awareness Program</b></p> <p>Research Associate</p> <p>Department of Environment, Government of Nepal</p> <p>Major activity: Measure fuel economy and exhaust emissions, data analysis, develop fiscal policies</p>
2019-2020	<p><b>Energy Consumption and Supply Situation in Federal System of Nepal (Province 1 and Province 2)</b></p>

	<p>Research Associate Water and Energy Commission Secretariat, Government of Nepal Major activity: Primary data analysis, develop provincial energy model and scenario analysis using TIMES</p>
2019	<p><b>Fiscal Policy Options with the Use of Fuel Economy Policy Implementation Tool (FEPIT) in Nepal</b> Research Associate Clean Energy Nepal Major activity: Data analysis, developing fiscal policies</p>
2019-2020	<p><b>Baseline Study on Fuel Economy of Light Duty Vehicles (LDV) in Nepal</b> Research Associate Clean Energy Nepal Major activity: Develop baseline fuel economy of LDVs in Nepal and fiscal policy options</p>
2016-2017	<p><b>National Action Plan for Short-Lived Climate Pollutants (SLCPs)</b> Energy Analyst International Centre for Integrated Mountain Development (ICIMOD), Nepal Major Activity: Energy systems modelling and emission analysis using LEAP-IBC software</p>
2013-2014	<p><b>Low Carbon Economic Development Strategy (LCEDS) for Nepal</b> Energy Modeler Alternative Energy Promotion Center (AEPC), Government of Nepal, Major Activity: Energy systems modelling and analysis using MARKAL and MAED software</p>
2012-2013	<p><b>Water Resources and Energy Vision 2050 for Nepal</b> Energy Modeler Water and Energy Commission Secretariat (WECS), Ministry of Energy, Government Nepal Major Activity: Energy modelling using MARKAL and MAED software</p>
2012-2013	<p><b>Technology Need Assessment (TNA)</b> Energy Analyst Major Activity: Residential sector technology needs assessment using the MCDA tool</p>
2011-2013	<p><b>Center for Energy Studies, Institute of Engineering, Tribhuvan University (CES/IOE/TU), Lalitpur, Nepal</b> Research Assistant Major Activity: develop databases of the energy sector of Nepal, perform original research to input or update data, and analyse energy system model using various tools and software</p>

#### PAPER PUBLICATIONS and PRESENTATION

1.	<p>KC. Subash and Prajapati, A (2024). "Implications of Net-zero Emission Strategy for Residential Sector of Bagmati Province" Journal of Advanced College of Engineering, 9: 189-199. DOI: 10.3126/jacem.v9i1.71447</p>
2.	<p>Shakya, S. R., et al. (2023). "Environmental, energy security, and energy equity (3E) benefits of net-zero emission strategy in a developing country: A case study of Nepal." Energy Reports 9: 2359-2371. DOI : 10.1016/j.egyr.2023.01.055</p>
3.	<p>Singh, R., Bhattarai, N., Prajapati, A., &amp; Shakya, S. R. (2022). Impact of variation in climatic parameters on hydropower generation: A case of hydropower project in Nepal. Heliyon, 8(12), e12240. doi:10.1016/j.heliyon.2022.e12240</p>
4.	<p>Prajapati, A., et al. (2021). "Passenger Transport Modal Mix by Incorporating Travel Behaviour: A Case Study of Kathmandu Valley, Nepal." Strategic Planning for Energy and the Environment. DOI:10.13052/10.13052/SPEE1048-</p>

	4236.4032
5.	Nakarmi, A. M., et al. (2020). "Mitigating the impacts of air pollutants in Nepal and climate co-benefits: a scenario-based approach." <i>Air Quality, Atmosphere &amp; Health</i> 13(3): 361-370. DOI: 10.1007/s11869-020-00799-6
6.	Prajapati, A., et al. (2020). "SpatioTemporal Analysis of Public Transportation System Using Static Transit Accessibility Methodological Framework." <i>International Journal Of Scientific &amp; Technology Research</i> 9(10): 228-232.
7.	Prajapati, A., Bajracharya, T. R., Bhattarai, N., & Froyen, Y. K. (2020). Public Bus Accessibility and its Implications in Energy and Environment: A Case Study of Kathmandu Valley. <i>Journal of the Institute of Engineering</i> , 15(3), 253–260. <a href="https://doi.org/10.3126/jie.v15i3.32190">https://doi.org/10.3126/jie.v15i3.32190</a>
8.	Prajapati, A., Bajracharya, T. R., & Bhattarai, N. (2017). Driving Factors of Energy Consumption in Transport Sector. Paper presented at the IOE Graduate Conference, Kathmandu, Nepal. Vol 5, 283-290, ISSN: 2350-8914 (Online), 2350-8906 (Print)
9.	Prajapati, A., & Nakarmi, A. M. (2014). Performance Evaluation of Energy Technologies in Residential Sector. Paper presented at the IOE Graduate Conference, Kathmandu, Nepal.
10.	Rajbhandari, U. S., Prajapati, A., & Nakarmi, A. M. (2013). Future Energy Scenario and Implications for Technological Interventions for Nepal. Paper presented at the IOE Graduate Conference.

#### SEMINARS

27 April - 04 May 2024	Kick off meeting on South-South and Triangular Cooperation on Decentralized Renewable Energy Nepal, Indonesia, Germany (SSTC DRE NEPAL) in Bali, Indonesia
20-21 February 2019	Attended First Regional Conference Women in Power Sector Professional Network in South Asia in Kathmandu, Nepal
14 July 2018	Attended Academic Writing Workshop Organized by London Centre for Interdisciplinary Research, London
1 March 2018	Attended Workshop "The Future Transport System" at Trondheim, Norway
4-5 December 2017	Attended "The International Symposium on "Gender and Sustainable Development," organized by the Institute of Engineering, Pulchowk Campus, Lalitpur, Nepal
15-16 December 2017	Attended Power Summit 2016; Jointly organized by Independent Power Producers' Association, Nepal (IPPAN) and Ministry of Energy, Government of Nepal. Kathmandu, Nepal
19 July 2016	Participated in the stakeholder meeting on Diesel Generator Micro-Grid Concept to Reduce Emission in Kathmandu Valley, Organized by Center for Energy Studies, IOE, TU
9 November 2016	Attended international symposium on Gender mainstreaming in energy for sustainable social development, organized by IOE, TU
November 2012	Successfully attended a workshop on "Trade Promotion through Standardization in the South and South East regions (SESA)" organized by SAWTEE Nepal

## TRAININGS

01-19 <sup>th</sup> September 2025	<b>Financial Analysis of Power Sector Projects (FinPlan)</b> Trainee, hosted by the Asian Institute of Technology (AIT), Thailand The Energy Modeling Platform for Asia-Pacific, organized by Climate Compatible Growth (CCG)
05-29 June 2025	<b>21-Days Energy Auditor Training</b> Trainee Organized by Center for Energy Studies, Institute of Engineering, Tribhuvan University
17 Dec 2024- 1 June 2025	<b>WePOWER SAR100-2.0, South Asia Regional Infrastructure Connectivity (SARIC) Large Systems Training Program (LSTP) - 2024</b> Trainee, hosted by the Asian Institute of Technology (AIT), Thailand
22 -27 May 2024	<b>Laboratory Training on Application of Operations Research for Engineering Problem Solving Organized by Incubation, Innovation and Entrepreneurship Centre Supported by University Grant Commission</b> Trainer Organized by the Department of Mechanical and Aerospace Engineering, Institute of Engineering, Tribhuvan University
24-30 May 2023	<b>Training on Energy System Model Development and Scenario Analysis Supported by University Grant Commission</b> Trainer Organized by Center for Energy Studies, Institute of Engineering, Tribhuvan University
01-015 August 2022	<b>Training on Energy Demand Analysis using MAED Model</b> Trainee, Organized by ICIMOD, IAEA UNID, at Budhanilkantha, Kathmandu
09-11 December 2019	<b>Basic Training Course on VEDA-TIMES</b> Trainee, Organized by ETSAP, CSIRO Energy Centre, at Newcastle, Australia,
22-21 March 2019	<b>Energy Audit training</b> Trainee, Jointly organized by Centre for Energy Studies, Institute of Engineering, Tribhuvan University and Nepal Energy Efficiency Program (NEEP)/GIZ , Kathmandu, Nepal
22-21 November 2016	<b>Training Workshop on LEAP-IBC toolkit for the development of SLCP mitigation National Action Plan</b> Trainee, jointly organized by International Centre for Integrated Mountain Development (ICIMOD) and Stockholm Environment Institute (SEI), Kathmandu, Nepal
31 August – 04 Sept. 2015	<b>Training of Trainers (TOT)</b> Trainee, Organized by Training Institute for Technical Instruction (TITI), Bhaktapur, Nepal
25-28 March 2014	<b>Training Workshop: LEAP for Regional GHG Mitigation at Sub-National Scale</b> Trainee, Organized by USAID, Low Emission Development Asia (LEAD) Program, Medan, Indonesia
02-03 March 2014	<b>LEAP training program for beginners</b> Instructor Conducted by Center for Energy Studies, IOE, TU
15-19 July 2013	<b>Using the Long-Range Energy Alternatives Planning (LEAP) Model for Greenhouse Gas Mitigation Assessment</b> Trainee, Organized by USAID, Low Emission Development Asia (LEAD) Program, Bangkok, Thailand
20-26 February 2013	<b>Application of Computational Fluid Dynamics in Hydropower Design and Analysis</b> Trainee, Jointly organized by Energy System Planning and Analysis Unit (ESPAU), Center for Energy Studies, Institute of Engineering, Tribhuvan University and Institute of Energy Systems and Thermodynamics (IET), Vienna University of Technology

21-23 November 2012	<b>Awareness Training Program on Carbon Foot Printing and ISO 14067</b> Trainee, Organized by Nepal Bureau of Standards and Metrology ( Ministry of Industry) and SEAM Nepal Project
17-26 June 2012	<b>Solar PV Design for Engineers</b> Trainee, Jointly organized by Centre for Energy Studies / Institute of Engineering / Tribhuvan University & Energy Sector Assistance Program (ESAP) / Alternative Energy Promotion Centre (AEPC), Kathmandu, Nepal
June 2012	<b>Energy management system ISO 50001</b> Trainee, Organized by CES, IOE, Pulchowk, Lalitpur
23 -25 October, 2011	<b>Skill Development Programme on Energy Audit for Engineers</b> Trainee, Organized by Industrial Energy Management Project and Department of Mechanical Engineering, Pulchowk Campus, IOE

#### PERSONAL SKILLS

<b>Mother tongue(s)</b>	Newari
<b>Other languages</b>	Excellent at reading, writing and speaking in Nepali and English languages
<b>Communication skills</b>	Communication skills gained through my experience in different organizations
<b>Organizational/ managerial skills</b>	<ul style="list-style-type: none"> <li>▪ Successfully conducted many programs under my coordination</li> <li>▪ Active participation in various functions and developed interpersonal relationships</li> <li>▪ Successfully published Engineers' Society Bulletin, vol. One as a chief editor</li> </ul>
<b>Job-related skills</b>	<ul style="list-style-type: none"> <li>▪ Motivated to perform the job in a spirited team environment</li> <li>▪ Managed to complete the work under the due pressure and a critical situation</li> <li>▪ Inspired to always do better with satisfying results for the welfare of the organization</li> </ul>
<b>Computer Skills</b>	<ul style="list-style-type: none"> <li>▪ Good command of Microsoft Office™ tools</li> <li>▪ Good knowledge of energy modelling tools like LEAP, MAED, MARKAL, VEDA-TIMES</li> </ul>
<b>Interest</b>	Reading Books, Travelling

Anita Prajapati