

I. Biographical Data

A. Name: Anish Ghimire

B. Education

**Oct 2012 – Dec 2015 Doctorate in Environmental Technology
(Defended and awarded on 17th Dec, 2015, Italy)**

Erasmus Mundus Joint Doctorate Programme, Environmental Technologies for Solids, Soil and Sediments (ETeCoS³) (<http://www.internationaldoctorate.unicas.it>)

UNESCO-IHE Delft Institute for Water Education (the Netherlands), University of Paris-Est (France) and University of Cassino and Southern Lazio (Italy). Dissertation: Dark fermentative biohydrogen production from organic waste and application of by-products in a biorefinery concept. Supervisors and Promoters: Prof. Dr. Ing. Giovanni Esposito (Italy) and Prof. Dr. Ir. Piet N.L. Lens (the Netherlands)

Aug 2010 – Jun 2012 Master of Engineering in Environmental Engineering and Management (Environmental Technology and Management)

Asian Institute of Technology, Pathumthani (Thailand) (www.ait.asia)

Degree obtained with award for outstanding candidate in Environmental Engineering (Cumulative Grade Point Average 3.88 out of 4.00). Thesis: Modeling of greenhouse gas emissions and benefits from solid waste management options: A case study of tapioca starch industries in Thailand. Supervisor: Prof. Dr. Ajit P. Annachatre

Aug 2005 – Oct 2009 Bachelor of Technology in Environmental Engineering

Kathmandu University, Dhulikhel (Nepal) (www.ku.edu.np)

Degree obtained with highest Cumulative Grade Point Average in Environmental Engineering (3.87 out of 4.00). Final Project: An integrated approach to design a wastewater treatment plant at Kathmandu University. Supervisor: Dr. Nawa Raj Khatiwada

C. Positions held

Feb 2024 – Present	Assistant Professor, Environmental Engineering and Management, Department of Energy, Environment and Climate Change, School of Environment, Resources and Development, Asian Institute of Technology, Thailand
Jul 2019 – Jan 2024	Assistant Professor and Program Coordinator (Jul 2020 – Aug 2024) of Environmental Engineering, Chairman of Environmental Engineering Subject Committee (Since July 2020 – Aug 2024) (https://ese.ku.edu.np/) Department of Environmental Science and Engineering Kathmandu University, Dhulikhel, Nepal
Jul 2017 – Jul 2019	Assistant Professor & Research Coordinator (http://www.nec.edu.np) Nepal Engineering College (NEC), NEC-Center for Postgraduate Studies (CPS) (Affiliated to Pokhara University) (Lalitpur, Nepal)
Mar 2017 – Apr 2018 (Part-time)	Visiting Faculty, Undergraduate Level, Environmental Science NAMI, Nepal (http://nami.edu.np) in partnership with the University of Northampton, UK
Mar 2016 – Apr, 2017	Project Coordinator / Research Fellow

Wastewater Treatment Project, Department of Environment Science and Engineering, Kathmandu University (Dhulikhel, Nepal)

- Oct 2012 – Dec 2015 Doctoral Researcher (<http://www.internationaldoctorate.unicas.it>)
University of Cassino and Southern Lazio, Department of Civil and Mechanical Engineering, Italy
- Feb 2010 – Jul 2010 Environmental Consultant and Office Engineer
SILT Consultants (P.) Ltd., Kathmandu (Nepal)

D. Special honors and awards

- 2017 **Chinese Academy of Science, President's International Fellowship Initiative (PIFI)**
(awarded but not pursued)
- 2017 **Nepal Bidhya Bhusan KA** (For highest academic achievement, awarded from the President of Nepal)
- 2017 **Young Researcher Fellowship (YRF)** for short-term research (6 months), Center of Research for Environment, Energy and Water (CREEW), Nepal
- 2016 **Best PhD Thesis 2016** awarded by the Environmental and Sanitary Engineering Association of Italy (GITISA)
- 2012 - 2015 **Erasmus Mundus Joint Doctoral Fellow** (Italy, France and the Netherlands)
- 2012 **Professor Chongrak Polprasert Award** for **Outstanding candidate** in Environmental Engineering and Management, Asian Institute of Technology, Thailand
- 2010 - 2012 **HM Queen (Thailand) Scholarship** for Masters Study in Asian Institute of Technology, Thailand

II. Pedagogy

A. Experience as a teacher

Regularly teaching graduate and undergraduate level courses such as Water Quality Engineering (i.e. Physico-chemical Treatment Processes), Biological Wastewater Treatment, Design of Water and Wastewater Management Systems and Pollution Control Technology (graduate levels), and courses such as Water and Wastewater Technology, Introduction to Environmental Engineering and Environmental Impact Assessment (undergraduate level).

C. Pedagogical Development

I. Student Research Supervision

- Doctoral Students: 6 (Ongoing), As Co-advisor
- Master's thesis: 31 (Graduated), (15 are jointly supervised)
- 6 (Ongoing, will defend by February, 2024)
- Undergraduate: More than 26 capstone projects (Graduated)

III. Research

A. Publications

III. A Summary of journal articles published (Jan 2015 – Feb 2024)

Refereed International Journals	Refereed Regional Journals	Refereed National Journals
32	0	4

In Progress		
Refereed International Journals	Refereed Regional Journals	Refereed National Journals
1	0	1

Book Chapters: 7

III. B Articles in Refereed International Journals

1. Flint, A.G., Howard, G., Nijhawan, A., Poudel, M., Geremew, A., Mulugeta, Y., Lo, Y.E., **Ghimire, A.**, Baidya, M. and Sharma, S. (2024). Managing climate change challenges to water security: Community water governance in Ethiopia and Nepal. *Geo: Geography and Environment*.
2. Poudel, P., Ghimire, A., Howard, G., Evans, B., Camargo-Valero, M. A., Mills, F., ... & Dangol, S. (2023). Field-based methods for measuring greenhouse gases emissions from on-site sanitation systems: A systematic review of published literature. *Heliyon*.
3. Shrestha, P. P., **Ghimire, A.**, Dangi, M. B., & Urynowicz, M. A. (2023). Development of a Municipal Solid Waste Management Life Cycle Assessment Tool for Banepa Municipality, Nepal. *Sustainability*, 15(13), 9954.
4. Swar, S.S., Boonnorat, J., **Ghimire, A.** (2023). Algae-Based Treatment of a Landfill Leachate pretreated by Coagulation-Flocculation. *Journal of Environmental Management*. 342: 118223
5. Parajuli A, Khadka A, Sapkota L, **Ghimire A.** (2022) Effect of Hydraulic Retention Time and Organic-Loading Rate on Two-Staged, Semi-Continuous Mesophilic Anaerobic Digestion of Food Waste during Start-Up. *Fermentation* (MDPI). 8(11):620.
6. Bajracharya, S., Adhikari, A., Shrestha, P. P., & **Ghimire, A.** (2022). Life-cycle assessment of solid waste management in Dhulikhel Municipality, Nepal. *Journal of Environmental Engineering and Science*, 40, 1-8.
7. Nijhawan A, Howard G, Poudel M, Pregolato M, Eunice Lo YT, **Ghimire A**, Baidya M, Geremew A, Flint A, Mulugeta Y. (2022) Assessing the Climate Resilience of Community-Managed Water Supplies in Ethiopia and Nepal. *Water* (MDPI). 14(8):1293.
8. Pradhan, S.P., Joshi, P., Poudel, P., **Ghimire, A.**, Chhetri, S., Maharjan, J., Khadgi, N., Poudel, M., Luitel, A., Pandey, B.P. and Shah, R.D.T. (2022). Long-term assessment of water quality of Kathmandu University Drinking Water Supply Centre, Nepal. *Sustainable Water Resources Management*, 8(2), pp.1-11.
9. Dangol, S., **Ghimire, A.**, Tuladhar, S., Khadka, A., Thapa, B. and Sapkota, L. (2022). Biohythane and organic acid production from food waste by two-stage anaerobic digestion: a review within biorefinery framework. *International Journal of Environmental Science and Technology*, pp.1-34.
10. Khadka, A., Parajuli, A., Dangol, S., Thapa, B., Sapkota, L., Carmona-Martínez, A.A.& **Ghimire, A.** (2022). Effect of the Substrate to Inoculum Ratios on the Kinetics of Biogas Production during the Mesophilic Anaerobic Digestion of Food Waste. *Energies*, 15, 834.
11. Sharma, S., Baidya, M., Poudel, P., Panthi, S. R., Pote-Shrestha, R. R., **Ghimire, A.**, & Pradhan, S. P. (2021). Drinking water status in Nepal: an overview in the context of climate change. *Journal of Water, Sanitation and Hygiene for Development*, 11(6), 859-866.

12. Howard, G., Nijhawan, A., Flint, A. G., Baidya, M., Pregnotato, M., **Ghimire, A.**, ... & Wondim, T. (2021). How tough is WASH? Developing an indicator framework for assessing climate resilience for water and sanitation services in low-and middle-income countries. *npj Clean Water*.
13. Sekoai, P. T., **Ghimire, A.**, Ezeokoli, O. T., Rao, S., Ngan, W. Y., Habimana, O., ... & Hung, C. H. (2021). Valorization of volatile fatty acids from the dark fermentation waste Streams-A promising pathway for a biorefinery concept. *Renewable and Sustainable Energy Reviews*, 143, 110971.
14. Vaidya, B., Shrestha, S., & **Ghimire, A.** (2021). Water footprint assessment of food-water-energy systems at Kathmandu University, Nepal. *Current Research in Environmental Sustainability*, 3, 100044.
15. **Ghimire, A.**, Luongo, V., Frunzo, L., Pirozzi, F., Lens, P.N.L., Esposito, G., (2021). Biohythane Production from food waste in a two-stage process- Assessing the energy recovery potential. *Environmental Technology*, 43(14), pp. 1-7.
16. Sekoai PT, Daramola MO, Mogwase B, Engelbrecht N, Yoro KO, du Preez SP, Mhlongo S, Ezeokoli OT, **Ghimire A**, Ayeni AO, Hlongwane GN. Revising the dark fermentative H₂ research and development scenario—An overview of the recent advances and emerging technological approaches. *Biomass and Bioenergy*. 2020 Sep 1; 140:105673.
17. Capson-Tojo, G., Batstone, D. J., Grassino, M., Vlaeminck, S. E., Puyol, D., Verstraete, W., Kleerebezem, R., Oehmen, A., **Ghimire, A.**, Pikaar, I., Lema, J. M., Hülsen. T. 2020. Purple phototrophic bacteria for resource recovery: Challenges and opportunities. *Biotechnology Advances*. 2020 (43(1) 107567.
18. Luongo, V., Grazia, P., **Ghimire, A.**, Pirozzi, F., Fabbicino, M. (2019). Repeated-Batch Fermentation of Cheese Whey for Semi-Continuous Lactic Acid Production Using Mixed Cultures at Uncontrolled pH. *Sustainability*. 2019, 11, 3330.
19. Sekoai, P. T., Naphtaly, C., Ouma, M., Petrus, S., Modisha, P., Engelbrecht, N.,..., **Ghimire, A.** (2019). Application of nanoparticles in biofuels: An overview. *Fuels*. 237, 380-397.
20. Thapa, B., Khatiwada, N. R., **Ghimire, A.**, Adhikari, B., & Badaila, R. (2019). Study on Kinetics of Pollutants Removal in Guheshwori Wastewater Treatment Plant, Kathmandu. *Journal of Water Pollution and Control*, 2(1), 8. (non-indexed, UK)
21. Boonnorat, J., Techkarnjanaruk, S., Hond R., **Ghimire, A.**, Anghthong, S., Rojviroon T., Phanwilai S. 2018. Enhanced micropollutant biodegradation and assessment of nitrous oxide concentration reduction in wastewater treated by acclimatized sludge bioaugmentation. *Science of the Total Environment* 637–638:771–779.
22. **Ghimire, A.**, Trably, E., Frunzo, L., Pirozzi, F., Lens, P.N.L., Esposito, G., Cazier, E.A., Escudié, R. 2018. Effect of moisture content on biohydrogen and lactic acid production during dark fermentation of organic waste biomass. *Bioresource Tecnology* 248, Part A: 180-186.
23. **Ghimire, A.**, Kumar, G., Periyasamy, S., Shobana, S., Saratale, G. D., Kim, H.W., Luongo, V. Esposito, G. Munoz, R. 2017. Bio-hythane production from microalgae biomass: key challenges and potential opportunities for algal bio-refineries. *Bioresource Technology* 241:525-536.
24. **Ghimire, A.**, Luongo, V., Frunzo, L., Pirozzi, F., Lens, P.N.L., Esposito, G., 2017. Continuous biohydrogen production by thermophilic dark fermentation of cheese whey: use of buffalo manure as buffering agent. *Int. J. Hydrogen Energy* 42 (8): 4861–4869.
25. Luongo, V., **Ghimire, A.**, Frunzo, L., Fabbicino, M., D’Antonio, G., Pirozzi, F., Esposito, G., 2016. Photofermentative Production of Hydrogen and Poly-β-hydroxybutyrate from Dark Fermentation Products. *Bioresource Technology* 228: 171 – 175
26. **Ghimire, A.**, Valentino, S., Frunzo, L., Pirozzi, F., Lens, P.N.L., Esposito, G., 2016. Concomitant biohydrogen and poly-β-hydroxybutyrate production from dark fermentation effluents by adapted *Rhodobacter sphaeroides* and mixed photofermentative cultures. *Bioresource Technology* 217: 157-164
27. Kumar, G., Mudhoo A., Sivagurunathan, P., Nagarajan, D., **Ghimre, A.**, Lay, C.-H., Chiu-Yue Lin, C.-Y., Lee, D.-J., Chang, J.-S. 2016. Recent insights into the cell immobilization technology applied for dark fermentative hydrogen production. *Bioresource Technology* 219:725-737.
28. **Ghimire, A.**, Sposito, F., Frunzo, L., Pirozzi, F., Lens, P.N.L., Esposito, G., 2016. Effects of operational parameters on dark fermentative hydrogen production from biodegradable complex waste biomass. *Waste*

Management 50: 55-64.

29. **Ghimire, A.**, Valentino, S., Frunzo, L., Trably, E., Escudié, R., Pirozzi, F., Lens, P.N.L., Esposito, G., 2015. Biohydrogen production from food waste by coupling semi-continuous dark-photofermentation and residue post-treatment to anaerobic digestion: A synergy for energy recovery. *Int. J. Hydrogen Energy* 1–11.
30. **Ghimire, A.**, Frunzo, L., Pirozzi, F., Trably, E., Escudie, R., Lens, P.N.L., Esposito, G., 2015. A review on dark fermentative biohydrogen production from organic biomass: Process parameters and use of by-products. *Applied Energy* 144, 73–95.
31. **Ghimire, A.**, Frunzo, L., Pontoni, L., Lens, P.N.L., Esposito, G., Pirozzi, F., 2015. Dark fermentation of complex waste biomass for biohydrogen production by pretreated thermophilic anaerobic digestate. *Journal of Environmental. Management* 152, 43–48.
32. **Ghimire, A.**, Sen, R., Annachhatre, A.P., 2015. Biosolid Management Options in Cassava Starch Industries of Thailand: Present Practice and Future Possibilities. *Procedia Chemistry* 14, 66–75 (**SJR- 0.6**).
33. **Ghimire, A.**, Frunzo, L., Salzano, E., Panico, A., Lens, P.N.L., Pirozzi, F., 2015. Biomass Enrichment and Scale-up Implications for Dark Fermentation Hydrogen Production with Mixed Cultures. *Chem. Eng. Trans.* 43, 391–396

III. C Articles in Refereed **National Journals**

34. Sapkota, L., Joshi, R., Ghimire, A., Shrestha, L., Shrees, S., & Adhikari, B. (2023). Landfill Leachate: Review of various treatment approaches. *Journal of Innovations in Engineering Education*, 6(1), 34-44.
35. Bajracharya, S., **Ghimire, A.**, & Dangi, M. B. (2021). Generation, characterization, and environmental implications of solid waste and its management in the Everest region. *Nepal Journal of Environmental Science*, 9(2), 1–11.
36. Maharjan, A. and **Ghimire, A.** (2021). Application of activated effective microorganism, mudball and biosand filter for the treatment of dye wastewater. *Nepal Journal of Environmental Science*, 9(1), pp.41-48.
37. Samal, M., Lopchan L., S., Luitel, S., **Ghimire, A.** (2020). A Pilot Scale study of greywater treatment using gravel sand followed by granular activated carbon. *Kathmandu University Journal of Science, Engineering and Technology* Vol. 14(2).
38. Thapa, B., Khatiwada, N. R., **Ghimire, A.**, Adhikari, B., & Badaila, R. (2020). Studying the performance and kinetic values for pollutant removal using a lab scale plant. *Kathmandu University Journal of Science, Engineering and Technology*. Vol. 14(1).

III. D Book Chapters

1. Shrestha, S., Vaidya, B. and Ghimire, A. 2024. Water of Footprint of Food Systems. In Lopes, E. J., Zepka, L. Q., Deprá, M. C. *Smart Food Industry: The Blockchain for Sustainable Engineering: Volume II - Current Status, Future Foods, and Global Issues*. Boca Raton. CRC Press.
2. Gautam, A., Yendyo, K. R., Shrestha, P., Manandhar, I., Kunwar, S., Panthi, S., & **Ghimire, A.** (2022). Hospital wastewater treatment in Nepal: Status, challenges and future perspectives (case studies of effluent management in Nepal). In Khan N. A., Vambol, V., Vambol, S., Mozaffari, N., Mozaffari, N. (Eds) *Hospital Wastewater Treatment: Global Scenario and Case Studies*. IWA Publishing.
3. Adhikari, P., Aryal, N., **Ghimire, A.** and Khanal, P., 2021. Sustainable biowaste recycling using insects. In *Clean Energy and Resources Recovery* (pp. 399-420). Elsevier.
4. **Ghimire A.**, Gyawali R., Lens P. N. L., Lohani S. P. (April, 2021) Technologies for Removal of Hydrogen Sulfide (H₂S) from Biogas. In: Aryal, N., Ottosen, L. M. and Kofoed, M. W. and Pant, D. (Eds.) *Emerging Technologies and Biological Systems for Biogas Upgrading*. Elsevier.
5. Dugar N., Karanjit S., Khatiwada N.R., Shakya S.M., **Ghimire A.** (2020). Post-disaster Waste Management: Lessons Learnt from 2015 Nepal Earthquake. In: Ghosh S. (eds) *Sustainable Waste Management: Policies and*

Case Studies. Springer, Singapore.

6. Thapa B., Patidar S.K., Khatiwada N.R., KC A.K., **Ghimire A.** (2019) Production of Ethanol from Municipal Solid Waste of India and Nepal. In: Ghosh S. (eds) *Waste Valorisation and Recycling*. Springer, Singapore.
7. **Ghimire, A.**, Luongo, V., Frunzo, L., Pirozzi, F., Lens, P.N.L., Esposito, G., 2016. Engineering strategies for enhancing photofermentative biohydrogen production by purple non-sulfur bacteria using dark fermentation effluents. In *Microbial Fuels: Technologies and Applications*. Taylor and Francis Group, CRC Press. Boca Raton, FL, USA.
8. Kumar, A., **Ghimire, A.**, Svensson, B., Lens, P.N.L. 2016. Potential and Prospects of Biofuel and Bioenergy Production from Waste Substrates. In *Microbial Fuels: Technologies and Applications*. Taylor and Francis Group, CRC Press. Boca Raton, FL, USA.

III. E. Papers in **Refereed Conference Proceedings**

1. Thapa, B., Patidar, S. K., Khatiwada, N. R., KC, A. K., **Ghimire, A.** 2017. Production of Ethanol from municipal solid waste of India and Nepal. In: *Proceedings of 7th International Conference on Solid Waste Management*, 500 – 509.
2. Aryal, N. B., Adhikari, B., Khatiwada, N. R., Shakya, S. M., **Ghimire, A.** Energy Recovery Potential of Kitchen Waste Generated from Hotels. In: *Proceedings of 7th International Conference on Solid Waste Management*, 403 – 410.
3. Dugar, N., Karanjit, S., Khatiwada, N. R., Shakya, S. M., **Ghimire, A.** 2017. Post Disaster Waste Management: Lessons Learnt from 2015 Nepal Earthquake. In: *Proceedings of 7th International Conference on Solid Waste Management*, 1253-1266.
4. Khatiwada, N. R., Euiso Choi, **Ghimire, A.**, Dongol S. 2017. A Pilot Scale Study of Rock Filter for Wastewater Treatment. In: *Proceedings of the WasteSafe 2017 - 5th International Conference on Solid Waste Management in South Asian Countries*, Khulna, Bangladesh, 25th – 27th February. (**Full Paper**).

III. F Abstracts in proceedings (2020 – 2023)

1. **Khatri, A.**, Ghimire, A. Co-treatment of settled fecal sludge and wastewater in a sequence batch reactor under different volumetric mixing ratios. [In Proceedings of IWA Specialist Conference](#) on Water & Wastewater Management, with a special focus on Developing Countries to be held in Perth, Western Australia from 3 – 8 December 2023 at Murdoch University.
2. Poudel, A., Adhikari, B. and **Ghimire, A.** Environmental Implications of Green Technologies Implementation in the Hotels: a case of Touristic city Pokhara, Nepal. In Proceedings of 11th International Conference on Sustainable Waste Management & Circular Economy 2021 (11th IconSWM-CE) & IPLA Global Forum 2021, 1- 4th December 2020, Jadavpur University, Kolkata, India (Online).
3. Khadka, A., Parajuli, A. and **Ghimire, A.** Performance of Two-Stage Semi-Continuous Mesophilic Anaerobic Digestion of Food Waste. In Proceedings of 11th International Conference on Sustainable Waste Management & Circular Economy 2021 (11th IconSWM-CE) & IPLA Global Forum 2021, 1-4th December 2021, Jadavpur University, Kolkata, India.
4. Swar S. S. and **Ghimire, A.** Optimization of Coagulation-Flocculation Process for Landfill Leachate Treatment using Response Surface Methodology. In Proceedings of 11th International Conference on Sustainable Waste Management & Circular Economy 2021 (11th IconSWM-CE) & IPLA Global Forum 2021, 1-4th December 2021, Jadavpur University, Kolkata, India.
5. Maharjan, N. Bista, S. and **Ghimire, A.** Modeling of Mesophilic Anaerobic Digestion of Food Waste using ADM1 in AQUASIM. In Proceedings of 11th International Conference on Sustainable Waste Management & Circular Economy 2021 (11th IconSWM-CE) & IPLA Global Forum 2021, 1-4th December 2021, Jadavpur University, Kolkata, India.
6. Dipika KC, I. Shrestha, Y. Dahal and B. Thapa, **A. Ghimire.** Assessment of use, disposal practices and possible Environmental implications of face mask in Kathmandu Valley. In Proceedings of 10th International Conference on Sustainable Waste Management Towards Circular Economy (IconSWM), 2-7th December 2020, Jadavpur University, Kolkata, India. **Awarded IconSWM Excellence award for oral presentation.**
7. Khadka A, Parajuli A, Thapa B, Dangol S, Sapkota L and **Ghimire A.** Effect of Substrate to Inoculum Ratios on the Kinetic Parameters during Mesophilic Anaerobic Digestion of Food Waste. In Proceedings of 1st

III. G Development Project Reports

1. Draft Packaging Waste Management Guidelines for USAID. (2022). (Contributed to Main Author Prof. Dr. Mohan B. Dangi and colleagues)
2. Design Guidelines for Wastewater Treatment including Fecal Sludge and Septage Management. (2020). Prepared for WHO Nepal and Society of Public Health Engineers- Nepal (SOPHEN) submitted to the Department of Water Supply and Sewerage Management, Ministry of Water Supply, Government of Nepal. (Input as Wastewater Expert to the Team).
3. National Standard for Domestic Wastewater Effluent (May 2019), WHO Nepal, prepared by America-Nepal Clean Water Foundation in Association with Soil Water and Air Testing Laboratories, Pvt. Ltd. Report submitted to Department of Water Supply and Sewerage Management, Ministry of Water Supply, Government of Nepal. (Input as Wastewater Expert to the Team).

III H. Invited Lectures

1. Ghimire, A. **Closing the Loop: Role of anaerobic fermentation-based biorefinery utilizing organic waste.** International Conference on New Horizons in Biotechnology (NHBT-2023), November 26-29, 2023. Trivandrum, Kerala, India and International Conference on Emerging Trends and Innovations in Biotechnology (BIOSPECTRUM-2023) November 30 to December 2, 2023, MACFAST, Tiruvalla, Kerala, India.

H index and the total number of citations to the faculty member's published work, as shown by SCOPUS (excluding self-citations).

Documents: **35**

H-index: **16**

Citations: **2,016**

<https://www.scopus.com/authid/detail.uri?authorId=56490704400>

IV. Research grants and sponsored projects

Feb, 2021 – Present	Co-Investigator , Climate Change and Sanitation: Accessing Resilience and Emission (SCARE) project (October 2020 to 31 August 2023) Kathmandu University (co PI Prof. Dr. Subodh Sharma, led by Prof. Guy Howard from University of Bristol, UK.
Nov, 2021 – Present	Participant , Establishing the Circular Economy-based livestock sector through collaborative Educational and Research activities (CEER) funded by International cooperation and quality enhancement in higher education (HK-dir) under (NORPART) and Norwegian ministry of Education and Research and Ministry of Foreign Affairs. https://site.nord.no/ceer/participants/
Jul 2021 – Jan, 2024	Principal Investigator (PI) , Optimization of Resources Recovery from Waste Biomass via Dark, Photofermentation and Anaerobic Digestion: An Integrated Circular Biorefinery (ORWIC). Funded by Norwegian Ministry of Foreign Affairs through EnergizeNepal. (Total Budget: around 51,000 US Dollars)
Sept, 2021 – Apr, 2023	Principal Investigator , Assessment of gaps and challenges of Faecal Sludge Management (FSM) system: A case study from Dhulikhel, Banepa and Panauti Municipalities. Funded by Research, Development and Innovation (RDI), Kathmandu University.
Mar, 2020 – Sept, 2021	Principal Investigator , Project: Chemical-Biological Treatment of Landfill Leachate from Sisdoile Landfill Site. Funded by Research, Development and Innovation (RDI), Kathmandu University.
Oct, 2019 – Oct, 2021	Co-Investigator , Waste Based Sustainable Biorefinery for the Production of Bio-hydrothane and Bio-chemical. Project implemented through private industrial partner. Funded by Norwegian Ministry of Foreign Affairs through EnergizeNepal. (Total

Budget: around 52,000 US Dollars)

- Jan 2021 – Jul, 2021 **Project Manager/Co-PI**, How Tough is WASH. Kathmandu University (PI Prof. Dr. Subodh Sharma, funded by the University of Bristol, UK
- Nov, 2018 – Nov, 2020 **Activity Leader** for Project titled “A Pilot Study to Produce **Bioenergy** and Fertilizer from Kathmandu University's Food Waste”, Bioenergy Lab, Department of Mechanical Engineering, Kathmandu University, Funded by Energize Nepal, Kathmandu University, Dhulikhel, Nepal
- Jun, 2017 – Aug, 2018 **Team Member**, High Elevation **Biogas Project** in Jumla in partnership with University of Applied Sciences and Arts Northwestern Switzerland, Institute for Ecopreneurship, Switzerland.

V. Service/Outreach

A. Professional Service as a Review Editor

- i) Guest Editor, Special Issue: Water system transformation and sustainability through reuse within a circular economy in Resources, Environment and Sustainability (Elsevier)
- ii) Review Editor for Frontiers in Sustainability, Frontiers in Energy Research, and Frontiers in Water Resource Management (<https://loop.frontiersin.org/people/264640/editorial>)
- iii) Editorial Board Member of SCITECH (Nepal)(<https://www.nepjol.info/index.php/scitech/about/editorialTeam>)

B. Reviewer to the following journals:

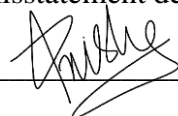
i) Reviews in Environmental Science and Bio/Technology (Springer); ii) Energy Conservation and Management (Elsevier); iii) Waste Management (Elsevier); iv) International Journal of Hydrogen Energy (Elsevier); v) Brazilian Journal of Chemical Engineering (SciELO Brasil) vi) Environments (MDPI) vii) Euro-Mediterranean Journal for Environmental Integration (EMJE) viii) Bioresource Technology ix) Sustainability (MDPI) x) Waste and Biomass Valorization (Springer) xi) Annals of Microbiology (Elsevier) xii) Engineering Science and Technology, an International Journal (JESTECH) (Elsevier) xiii) Applied Microbiology (Wiley) xiv) Fuel (Elsevier) xv) Applied Energy (Elsevier) xvi) Water Environment Research (Wiley) xvii) Journal of Environmental Management (Elsevier) xviii) Frontiers in Energy (Frontiers) xix) Chemosphere (Elsevier) xx) Water Supply xxi) Nature Scientific Reports (Springer Nature) xxii) Journal of Environmental Engineering and Landscape Management xxiii) Science of the Total Environment (Elsevier) (Ref.: <https://www.webofscience.com/wos/author/record/G-1454-2016>)

VI. Personal Statement

CERTIFICATION:

I, the undersigned, certify that, to the best of my knowledge and belief, these biodata correctly describe myself, my qualifications and my experience. I understand that any willful misstatement described herein may lead to my disqualification.

SIGNATURE:



DATE:

07/02/2024

Day / Month / Year