

## CURRICULUM VITAE

### Personal:

Name: Prof. Khem Narayan Poudyal, PhD

Nationality: Nepali

Place of birth: Dahathum-2 Bhirkot Municipality, Syangja, Nepal

Marital Status: Married

Mailing Address: Department of Applied sciences , Institute of Engineering Pulchowk Campus,  
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Present Status: Professor of Physics

Field of Interest: Applied Physics (Solar Energy, Renewable Energy and Atmospheric Sciences)

### Academic Background:

PhD Degree: PhD in Physics (2015). Awarded by Tribhuvan University

PhD Topic of Specialization: "Estimation of Global Solar Radiation Potential in Nepal"

Master Degree: M. Sc. in Physics (1989). Awarded by Tribhuvan University

Topic of Specialization: UV- A Solar Irradiation on Slant Surfaces at Kathmandu,

Bachelor Degree: B. Sc. (1987) Awarded by Tribhuvan University

Major Subjects: Physics, Chemistry and Mathematics

### Professional Experiences:

Professor, Institute of Engineering Pulchowk Campus , T.U.

Teaching Experiences: About 28 years teaching and research in Institute of Engineering  
Pulchowk Campus, Lalitpur, and central Department of Physics, TU Kirtipur, Nepal  
Visiting Faculty National /Abroad

1. Visiting Scholar in University of Wyoming, Laramie , USA, (Aug. 2004- Jan. 2005)
2. Visiting Lecturer at University of Sannio, Benevento, Italy, Feb 1, 2010 to Nov. 8, 2010.

Professional Society Membership:

1. Life Member of Nepal Physical Society (NPS), Kathmandu, Nepal, 1991
2. Life Member of Society of Hydrologists and Meteorologists (SOHAM) – Nepal
3. Senior Member, # 90587132, Institute of Electrical and Electronics Engineering (IEEE), 2010

### Nepal Government, Nepal Academy of Science and Technology (NAST) and University Grant Commission (UGC) Funded Projects:

1. A Study of Community Noise in Kathmandu Valley, Financed by Royal Nepal Academy of Science and Technology (RONAST ) Government of Nepal 1995/1996.
2. Solar Mapping on the different Sites of Kathmandu Valley and Sunsari District of Nepal. ( 2001). The project is funded by Alternative Energy Promotion Centre,

- Ministry of Environment, Science and Technology GoN , Nepal
3. The Feasibility Studies of Geothermal Energy Application in Nepal (June 2001). The project is funded by Alternative Energy Promotion Centre, Ministry of Environment, Science and Technology GON, Nepal
  4. National Standard of Quality Control of Noise Pollution Project. (This project is sponsored by Ministry of Population and Environment Government of Nepal (2002).
  5. National Standard of Quality Control of Air Pollution Project. (This project is sponsored by Ministry of Population and Environment Government of Nepal (2002).
  6. The Performance and Study on Photovoltaic (PV) Module of Traffic Light at the Kathmandu Valley (Inside the Ring Road), Funded by University Grant Commission (UGC), Government of Nepal 2006/2007.

### **International Funded Projects:**

Member, 2000-2002 Curriculum Development for Renewable Energy Technologies project in a team of national and international experts to Design and deliver a New Curriculum for Master of Science in Renewable Energy Engineering (MSREE) Degree Program in collaboration with Tribhuvan University and University of Colorado, Boulder, USA. The project is funded by USAID, USA

Research Member: Global Pathway Project Red Rock Community College and Colorado School of Mines Golden Colorado, USA 2002-2004. Environment Pollution Control Engineering Global Pathways Project to manage the logistics, communication, and design of Environmental Engineering Curriculum for Diploma in Environmental Engineering at the Tribhuvan University, Nepal.

### **Publication: International Journals**

1. Lok B. Baral, Jeevan J. Nakarmi, and Khem N. Poudyal, Harvested gravitational potential energy for mountain transportation and for calculating the efficiency of CASWAT-G, Machine, Research Journal of Physical Sciences Plus, Vol. 5(4), 1-6, May (2017)
2. Manoj K Thapa, , Binod K. Bhattarai, Shekhar Gurung, Balkrishna Sapkota, Khem N. Poudyal and Nava R. Karki, Effects of Aerosols on the Solar Radiation in MidHill of Nepal : A Case study in the Kathmandu Valley, Int. J.Syst Assur Eng Manag DOI 10.1007/13198-016-0527-y-, 2016.
3. Manoj K Thapa, , Binod K. Bhattarai, Shekhar Gurung, Balkrishna Sapkota, Khem N. Poudyal, Diurnal and Monthly Variation of Aerosol Optical Depth and Angstrom's Parameters in Kathmandu Valley, Nepal. Research Journal of Chemical Journal Sciences, Vol. 6(2), 40- 44, February (2016).
4. Bishovvijaya Pandey and Khem N. Poudyal, The Study of Angular Distribution of UV Radiation at Various at various sites of Kathmandu Valley, Nepal, Research Journal of Chemical Journal Sciences, Vol.4(7), 11-20, (2016).

5. Bed R. K.C., Khem N. Poudyal and Shekhar Gurung, Variation of Global Solar Radiation at Different altitudes of Mid-Wester Region, Nepal. Research Journal of Chemical Sciences, Vol. 6(8), 24-28, 2016 .
6. Khem N. Poudyal, Binod K. Bhattarai, Balkrishna Sapkota, Berit Kjeldstad, Estimation of the daily global solar radiation; Nepal experience, Measurement, Elsevier, 46 (2013), 1807-1817.
7. Khem N. Poudyal, Binod K. Bhattarai, Balkrishna Sapkota, Berit Kjeldstad, Estimation of Global Solar Radiation Using Clearness Index and Cloud Transmittance Factor at Trans- Himalayan Region in Nepal, Energy and Power Engineering, Vol.4, (2012), 415-421,
8. Khem N. Poudyal, Binod K. Bhattarai, Balkrishna Sapkota, Berit Kjeldstad, Estimation of Global Solar Radiation Using Clearness Index and Cloud Transmittance Factor at Trans- Himalayan Region in Nepal, Energy and Power Engineering, Vol.4, (2012), 415-421,
9. Khem N. Poudyal, Binod K. Bhattarai, Balkrishna Sapkota, Berit Kjeldstad Estimation of Global Solar Radiation using Sunshine Duration in Himalaya Region, Research, Journal of Chemical Sciences, Vol. 6(8), 2012, 24-28.
10. Khem N. Poudyal, P. Dapanto, De Vito, B.K. Bhattarai and B.K. Sapkota, Study of Diurnal Variation of Global Solar Irradiance using Pyranometer on Horizontal Surface and Investigation of the Trend of Irradiance at The Solar Noon at Kathmandu, Nepal, International Conference on software , Knowledge and Information Management Applications, 2010, Paro , Bhutan SKIMA, 2010.
11. Khem N. Poudyal, Pasquale Daponte, Luca De Vito, Binod K. Bhattarai, and Balkrishna Sapkota, Study of Variation of Global Solar Radiation at Different Altitudes at Himalaya Region - A Case Study in Nepal, 17th Symposium IMEKO TC 4, 3rd Symposium IMEKO TC 19 and 15th IWADC Workshop Instrumentation for the ICT Era, Sept. 8-10, 2010, Kosice, Slovakia
12. Mohan B. Dangi, Ronald R. H. Cohen, Michael A. Urynowicz, Khem N. Poudyal, Report: Searching for a way to sustainability: technical and policy analyses of solid Waste issues in Kathmandu, May, 2009, 27: 295-301, Waste Management & Research.

#### **Publication: National Journals**

1. Awasthi Janaki and Poudyal Khem N. Estimation of Global Solar radiation using empirical Model on Meteorological Parameters at Simara Airport, Bara, Nepal. Journal of the Institute of Engineering, 2017, Vol. 9, No.1,69-78.
2. Khem N. Poudyal, Estimation of Global Solar Radiation using Modified Angstrom Empirical formula on the basis of Meteorological parameters in Himalaya Region Pokhara, Nepal, Journal of the Institute of Engineering, 2015, 11(1): 158-164.
3. Khem N. Poudyal, Binod K. Bhattarai, Balkrishna Sapkota, Berit Kjeldstad, Estimation of Global solar Radiation Using Pyranometer and NILU-UV Irradiance meter at Pokhara Valley in Nepal, Journal of the Institute of Engineering, 2013/14, Vol. 9, No.1,69-78.
4. Khem N. Poudyal, Empirical Model for the Estimation of Global solar Radiation at lowland Region Biratnagar (NEPAL), Proceeding of IOE Graduate Conference, Nov 2013, vol. 1, 182-185.

5. Khem N. Poudyal, Binod K. Bhattarai, Balkrishna Sapkota, Berit Kjeldstad, Solar Radiation Potential at Four Sites of Nepal , Journal of the Institute of Engineering, TUTA/IOE/PCU SAHR ,2012, Vol. 8, No. 3, pp. 189–197.
6. Khem N. Poudyal, Binod K. Bhattarai, Balkrishna Sapkota, Berit Kjeldstad, Estimation of the Daily Global Solar Radiation using RadEst 3.00 software-A Case Study at Low land Plain Region of Nepal, J. Nepal Chem. Soc., vol. 29, 2012.
7. Khem N. Poudyal, Pasquale Daponte, Luca De Vito, Binod K. Bhattarai, and Balkrishna Sapkota, Study of Global Solar Radiation Potential and ground level Albedo at Benevento, Italy, Journal of the Institute of Engineering Vol.8, No.1 and 2, 2010/2011, Pp 284-290.
8. Khem N. Poudyal, Binod K. Bhattarai, Balkrishna Sapkota, Solar Energy Potential in Nepal: A Case Study in Kathmandu Valley, Molung Research Journal 2(1), January 2011,pp 88-90.
9. Manoj Gurung, Khem N. Poudyal and Shekhar Gurung, Estimation of the Daily Global Solar Radiation using RadEst 3.00 program at Lowland Simara, Nepal.
10. Dhurba Banjade and Khem N. Poudyal, Estimation of Global Solar Radiation using Empirical Models at Benevento, Italy, Power and Communication Sector Development (PCSD), 30 December, 2010,
11. Khem N. Poudyal, State of Environment of Pokhara Valley', Phewa ka Tarang, Vol 1, 45-49, 2009.
12. Khem N. Poudyal, Role of Wind Energy for Rural Electrification and Other Applications in Nepal, Pratidhoni, April 2007,pp 22-25, Kathmandu Engineering College, TU.
13. Khem N. Poudyal, Noise Hazardous Areas in Some Major Cities of Nepal, Techno-Civil Universe Vol.2, September 2007, pp (35-38), Institute of Engineering Pulchowk Campus, TU.
14. Khem N. Poudyal and Mohan B. Dangi, Solid Waste Problems and Its Sustainable Solutions of Kathmandu, Metropolitan City, Phewa ka Tarang, 2064 (2007), Vol 2, 21-31.
15. Khem N. Poudyal, Solar Energy in Nepal: An Alternative of Energy ,Urga Ko Bikalpa Nepal ma Saurta Urga Aachalok , Literature Magazine Acchalok Publication Baishakh, 2070 Vol 45,6-9
16. Khem N. Poudyal, Urja Sankat : Samadhan Ko Bikalpa Saurya Urja (Energy Crisis : Solar Energy is one Solution) , Aachhalok , Literature Magazine Acchalok Publication, Sharwan-Aswin, 2069, Vol 44, 18-22
- Khem N. Poudyal and Indra B. Karki, Gramin Biddhutikaran ma Solar Photovoaltic ( Rural Electrification through Solar Photovoaltic ), Science and future, Vol 2(7), Ashadh/Shrawan, 2063
17. Khem N. Poudyal, Binod K. Bhattarai, Balkrishna Sapkota, Berit Kjeldstad, .Estimation of the Daily Global Solar Radiation using RadEst 3.00 software-A Case Study at Low land Plain Region of Nepal, . Nepal Chem. Soc., vol. 29, 2012
18. Khem N. Poudyal, Binod K. Bhattarai, Balkrishna Sapkota, Berit Kjeldstad , Estimation of the Daily Global Solar Radiation using RadEst 3.00 program at Lowland Simara, Nepal,

19. Khem N. Poudyal, Binod K. Bhattarai, Balkrishna Sapkota, Berit Kjeldstad Solar Radiation Potential at Four Sites of Nepal, Journal of the Institute of Engineering, Vol. 8(3), 2011, 189–197,
20. Khem N. Poudyal, Binod K. Bhattarai, Balkrishna Sapkota, Berit Kjeldstad, Solar Energy Potential in Nepal: A Case Study in Kathmandu Valley, Molung Research Journal 2(1), January 2011, pp 88-90
21. Khem N. Poudyal, Binod K. Bhattarai, Balkrishna Sapkota, Berit Kjeldstad, Study of Global Solar Radiation Potential and ground level Albedo at Benevento Italy, Journal of the Institute of Engineering Vol.8, No.1 and 2, 2010/2011, Pp 284-290.
22. Khem N. Poudyal, Binod K. Bhattarai, Balkrishna Sapkota, Berit Kjeldstad, Estimation of Global Solar Radiation using Empirical Models at Benevento, Italy,
23. Khem N. Poudyal, Noise Hazardous Areas in Some Major Cities of Nepal, Techno-Civil Universe Vol.2, September 2007, pp (35-38), Institute of Engineering Pulchowk Campus, TU
24. Khem N. Poudyal, Role of Wind Energy for Rural Electrification and Other Applications in Nepal, Pratidhoni, April 2007, pp 22-25, Kathmandu Engineering College, TU