CURRICULAM VITAE

Name	Bijay Kumar Pokhrel		
Current position	Ph.D. student of Agricultural Economics at Louisiana State University, Baton Rouge, Louisiana, USA		
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correspondence	Zip: 70802, Baton Rouge, Louisiana, USA		
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Key Qualification

Mr. Bijay Kumar Pokhrel has over 20 years of professional experiences in different disciplines of Civil Engineering namely: Irrigation, Road, Building, Water Supply and Sanitation, and Hydrology. In these disciplines, he has involved in project planning, design, estimate and construction supervision, monitoring and evaluation, contractor and consultant hiring, research works etc. Now Mr. Pokhrel is a Ph.D. student of Agricultural Economics at Louisiana State University, Baton Rouge, He has served government of Nepal as a senior divisional hydrologist in the Department of Hydrology and Meteorology. He has comprehensive experiences in hydro-meteorology and involving in hydrological evaluation, covering Deterministic and Stochastic hydrology, with particular expertise in water resources planning, flood estimation, rainfall intensity and flood frequency analysis, rainfallrunoff hydrological modeling, flood forecasting, flood zoning, reservoir sedimentation, spillway design flood estimation and evaluation, Hydropower design flood estimation and evaluation, design, estimate and supervision of civil works. Similarly, Hydro-meteorological network design, hydro-meteorological data collection, processing and publication, GIS and Remote Sensing. Mr. Pokhrel was involved as a resource person of DHM for the research work namely "Impact of Climate Change on Snow and Glacier at Nepalese Himalaya" was carried out with the IRD, France and Nagoya University, of Japan. Mr. Pokhrel was a key person for joint research work with WWf Nepal and DHM for Impact of Climate change on surface flow of Koshi Basin of Nepal. Mr. Pokhrel has involved as a consultant for different works like: development of image processing facility, GLOF assessment and mitigation study, preparation of Bathymetric map of different lakes, residential building design, irrigation study etc.

From June to September 2010, Mr. pokhrel was involved as a research assistant in the Hydrosciences Laboratory, Montpellier 2 University, France and his responsibilities were to build database by using Hydraccess software, download and treatment of MODIS data by using ARCGIS, use of SRM (Snow Melt Runoff Model) and GR4J-Cemaneign models in the Nepalese catchment and writing scientific paper.

From May to September 2011 and June to July 2012, Mr. Pokhrel was employed by SHELADIA ASSOCIATES INC.-USA at Herat, Afghanistan as a River Basin Modeler/Hydrologist and his responsibilities were to build database, use HEC-HMS and HEC-ResSim hydrological models in the Hari Rud Basin of western Afghanistan, and train Project Management Unit Engineers about hydrological modeling.

Mr. Pokhrel, has worked as a trainer for technicians and researchers many times, organized by different institutions, in hydrological modeling and hydrology related works.

Education:

- Master of Science (M.Sc.) in Engineering Hydrology from National University Ireland Galway, Ireland , 2000. Thesis: Low flow frequency Analysis.
- Bachelor of Engineering (B.E.) in Civil Engineering from Institute of Engineering, Pulchowk, Lalitpur, Nepal,1993.
- Bachelor of Science (B.Sc.) from Trichandra Multipul Campus , kathmandu, Nepal, 1988.

Training / Workshop

- Training course on Flood Forecasting and Management using MIKE 11 model at Institute of Water Modelling (IWM), Bangladesh held on 9-21 January, 2011.
- International Symposium on Benefitting from Earth Observation: Bridging the Data Gap for Adoptation to Climate Change in the Hindu Kush-Himalayan Region, from 4-6 October 2010, ICIMOD,Kathmandu, Nepal.
- Knowledge-Sharing workshop on Flash Floods in the Himalayas, State of the Art in Flash Flood Risk management from 15-16 February 2010, ICIMOD, Kathmandu, Nepal.
- Knowledge-Sharing workshop on climate adaptation,'From the Mountains to the Sea: Adapting to Climate Change'at WWF-India Secretariat,New Delhi, from 23-24 November 2009.
- Snow and Glacier Runoff Modelling in the Himalayas, 24-28 August 2009, ICIMOD, Kathmandu, Nepal.
- Remote Sensing ERDAS Imagine training from 9th to 20th February 2009 at Soya Mega Soft, Bhatbhateni Nepal.
- Training Workshop on River Basin Information System (RBIS) and DANUBIA Hydrological Modelling for Upper Brahmaputra Basin, 24-28 November 2008, Kathmandu, ICIMOD Nepal.
- International Conference on Hydrology and Climate Change in Mountainous Areas, November 15-17, Kathmandu, Nepal, SOHAM Nepal.
- 10th International Symposium on High Mountain Remote Sensing Cartography (HMRSC-X), September 8-11,2008, ICIMOD, Kathmandu.
- Training course in Tracer Hydrology from 27 march-1April 2008, Kathmandu, organized by Federal Office for Environment Ministry for Environmet, Traffic, Energy and Communication, Switzerland and Department of Hydrology and Meteorology, Nepal

- Remote Sensing Training (ERDAS-IMAGINE) from 1-7 February 2008, Kathmandu, organized by Department of Hydrology and Meteorology, Nepal
- Regional Training Workshop on Flash Flood Risk Management in Himalayas from 1-10 August, 2007, organized by International Centre for Integrated Mountain Development (ICIMOD)Nepal.
- Distributed Hydrological Model BTOPMC/YHyM2006, 15-16 January 2007, Kofu, Japan, Organized by University of Yamanshi, Kofu, Japan.
- Inclusive Econimic Development Trough Project Planning, Implementation and Capacity Building, July 18 25 August 2006, Organized by Ministry of Finance Government of Nepal and Nepal Administrative Staff College.
- South Asian Regional Training Workshop on Watershed Modelling, 7-18 March, 2005, Islamabad, Pakistan, organized by Global Change Impact Studies Centre and Pakistan Meteorological department.
- Application of Geo-Informatics For Water Resources Management, 17 28 March , 2003 organized by International Centre for Integrated Mountain Development (ICIMOD) Nepal.
- Geographic Information System (GIS), 24 5 October 2001, Lalitpur, Nepal, organized by National Society of Geo- Information Science/ UnitedNations Environment program/Environment Assessment Program-Asia Pacific/ National Information TechnologyInstitute (NITI), Lalitpur, Nepal
- Rating, Hydro, q Programming, Tideda computer programming Training, 4 weeks, September-october, 1997, Kathmandu, Nepal, organized by Department of Hydrology and Meteorology,Kathmandu, Nepal.
- Project formulation in association with KFW, Germany, 2 weeks , August 1996, Kathmandu, Nepal ,organized by Town development FoundBoard, Kathmandu, Nepal.
- MS-Window Training, 9 weeks, May 1996, Dhangadhi,Dist. Kailali"Zone: Seti Nepal. Organized by Technical Computer Training Centre"Dhangadhi,Dist. Kailali"Zone: Seti Nepal.
- Self Learned: AutoCad2000, MatLab ,FORTRAN & Visual Basic Programming.

LANGUAGES:

S.No.	Language	Speaking	Reading	Writing
1	Nepali(Native)	Excellent	Excellent	Excellent
2	English	Good	Excellent	Good

3	Hindi	Good	Good	Good

Honors and Awards

Winner of the Irish Government Fellowship Award for pursuing M.Sc. (Hydrology) in Ireland.

Winner of the His Majesty's Government of Nepal Fellowship Award for pursuing B.E.(Civil)in Nepal.

<u>Membership</u>

- Agricultural & Applied Economics Association (AAEA)
- Southern Agricultural Economics Association (SAEA)
- Nepal Engineers' Association
- Nepal Engineering Council (Reg. no. 3140, Civil, A category)
- International Association of Hydrological Sciences
- Society of Hydrologists and Meteorologists

<u>Experience Record</u>

<u>Organisation : Department of Hydrology and Meteorology (DHM) River Hydrology</u> <u>section (from 2010 April to April 2013)</u>

Position / Designation : Senior Divisional Hydrologist, In-charge of snow and glacier section.

Main task included: to implement and carry out all works related to this section i.e. Design, estimate, construction supervision and Monitoring and Evaluation of civil engineering works. Participate in seminar, workshop, training, talk program representing department, to run snow station, collection of data, processing and publication. To involve in the research activities.

<u>Organisation : Department of Hydrology and Meteorology (DHM) River Hydrology</u> <u>section (from 2007 July to 2010 April)</u>

<u>Position / Designation</u>: Hydrologist Engineer, responsible for to carry out all civil engineering works including design, estimate, preparation tender document, contract award, construction supervision. Monitoring and evaluation of work. To run 181 Hydro-met stations of Nepal and data processing and publication,

Main task includes: Design , estimate , construction supervision and Monitoring and Evaluation of gauging station, cableway, bank operating system, permanent gauging site, data collection and review, data processing and publishing, flood frequency analysis, rainfall intensity analysis, estimation of design discharge, flood modeling BTOPMC(Distributed Hydrological Model). Probable maximum Precipitation(PMP)and Probable maximum Flood (PMF) computation. Review and evaluate data collection networks and database systems. Technical resource for conducting training on discharge measurement by Indirect method (Slope area method).Planning, Management, Monitoring and Evaluation of development works. Budget preparation for the fiscal year. Actively involved as a resource person for effect of climate change in snow and glacier research work carried out with Japanese and French research team. Involved as a key person in International Centre for Integrated Mountain Development (ICIMOD) under the project " Hazard Assessment and Mitigation

Study of Potential Glacial Lake Outburst Flood (GLOF) lakes in Nepal funded by World Bank.

Organisation : Department of Hydrology and Meteorology (DHM) Snow and Glacier Hydrology section (from 2006 September to 2007 October)

<u>Position / Designation</u>: Hydrologist Engineer, responsible for running, Monitoring and Evaluation of all 22 Snow and Glacier stations of Nepal and and data analysis and publication. Monitoring 15 Kw Micro-hydro Plant

Main task included: Design, estimate and construction supervision of Snow and Glacier stations (Semi and Automatic stations), data collection and review, data processing and publishing, Maintenance and Monitoring of 15 Kw Micro-Hydro plant. Discharge measurement by Tracer Technology, Snow melt Runoff modeling. Monitoring and Evaluation of project, Planning and Budget preparation for the fiscal year of the Department(Hydrology)

Organisation : Karnali West Rapti Basin, Surkhet, Nepal (from Aug.2003 to Aug.2006)

<u>Position / Designation</u>: Basin Chief, responsible for running 81 Hydrological stations, 200 Meteorological and Climatological stations, 8 Synoptic stations and 2 Aero-synoptic stations stations.

Main task included: Planning, design of works to be carried out for running Hydrological and Meteorological stations and supervision. Data processing done by using database software(winhydro) and publication. Presentation to different forum about the scope of Karnali west Rapti Basin and other related topics of basin, worked as a technical resource (Hydrologist Engineer) for various projects.

Financial and Administrative works done for running basin office and its wings.

Organisation : Department of Hydrology and Meteorology, Nepal (Dec. 1996 to July 2003)

<u>Position / Designation</u>: Hydrologist Engineer, responsible for running 181 Hydro-met stations of Nepal and data analysis and publication.

Review and Improvement of the procedures on system for hydrological network of Nepal. The network is composed of 181 stream flow gauging stations. The activities undertaken include specification and installation of computer hardware and software; development of interfaces of the selected database Winhydro; establishment of office procedures for archiving, processing, quality assurance and dissemination. Organizing and conducting of training courses on data processing and database management for counterpart staff and other related subjects. Planning and Budget preparation for the fiscal year of the Department(Hydrology). Design and construction supervision of bank Operating System for Discharge measurement. Study of Low flow frequency analysis of rivers within Nepal. Study on Flood risk mapping of Bagmati and Kamala rivers in Nepal. Design and construction supervision of model V-Notch gauging station. Design of permanent gauging station at Sundarijal. Establishment of Integrated Database System of Surface & Ground water in Siraha District.

Organisation : Dhangadhi Municipality (Oct. 1995 to Dec. 1996)

<u>Position / Designation</u>: Civil Engineer, responsible for Technical expert for civil engineering works to be carried out by Municipality.

Design and Report Preparation work for Chatakpur-Chauraha Link road project. Design and construction supervisions for semigrouting and Bituminous mecadom road project in the different areas of Municipality. Design of Office building. Design and report preparation of Solid waste management and dumping site project. Design river training work. Construction supervision of Bus park construction project(Area 6000 m²)and storm water drainage project (6 km length). Design of R.C.C. bridge having 22 m span.

<u>Organisation : ITECO Nepal Pvt.Ltd., for SCOTT WILSON & KIRK PATRIK (May to</u> <u>June 1995)</u>

<u>Position / Designation</u>: Civil Engineer, responsible for construction supervision on Prithivi Highway Flood Damage Repair & maintenance Project.

<u>Organisation : EVEREST RESEARCH CENTRE, Kathmandu, Nepal.(April to July 1994)</u>

<u>Position / Designation</u>: Irrigation Engineer, responsible for Survey, Design, estimate and Report preparation.

Survey, design and report preparation work of Himachaur Irrigation project in salyan District, Nabbe Phant Irrigation project in Piyuthan District, Riu,Pariyu and Ghanger Irrigation project in Chitwan district.

Organisation : Hydro Engineering Services, Kathmandu (November 1993 to April 1995)

Position / Designation : Civil Engineer, responsible for Survey, Design, estimate and Report preparation.

Inventory Study of 140 Irrigation canals in Lamjung District, Rapid Appraisal test of 30 canals in Lamjung District, Energy consumption and profile study in the mid Western Development Region.

Organisation : Freelance, Kathmandu (July to November 1993)

Position / Designation: Civil Engineer, Residential Building design and cost Estimate.

About 20 building design in the Kathmandu Municipality

<u>Research / Reports/ Paper</u>

- Comparison of two snowmelt modelling approaches in the Dudh Koshi basin (eastern Himalayas, Nepal): Hydrological Sciences Journal. Hydrological Sciences Journal – Journal des Sciences Hydrologiques, 2014,http://dx.doi.org /10.1080 /02626667.2013.842282.
- Seasonal and annual mass balances of Mera and Pokalde glaciers (Nepal Himalaya) since 2007: The Cryosphere, 7, 1769–1786, 2013. <u>www.the-cryosphere.net</u> 7/1769/2013/.
- B. Kamal, O.Bajracharya, and B.K.Pokhrel, Assessment of Imja Glacial Lake outburst Flood (GLOF) Risk in Dudh Koshi river basin using Remote Sensing Techniques, SOHAm Nepal 2012.
- Assement of Imja Glacier Lake outburst Flood (GLOF) Risk in Dudh Koshi River Basin using Remote Sensing Techniques, 2010.
- Comparison of two snowmelt modeling approaches in the Dudh Koshi Basin (Eastern Himalaya, Nepal), under review.
- Impact of Snow and Glacier melts on downstream uses: Case study of Koshi River Basin, Nepal,2008.
- Station inventory with cross section survey of Koshi and Karnali West Rapti Basin of Nepal,2008.
- Data processing and Publication of Nepal, 2004.
- Preparation of Bathymetric map of Tilicho Lake of Nepal, 2002.
- Bovang Gupti Agricultural Road, Ilam, Nepal, 1999.
- Flood Risk Mapping of Kamala River, Nepal, 1999.
- Flood Risk mapping of Tinau River, Nepal, 1998.

- Establishment of Integrated Database System of Surface & Ground water in Siraha District, Nepal, 1998.
- Project of Permanent Bench Mark Carrying from Baluwang to Bagasoti Gauging, Nepal, 1998.
- Low Flow Study of Nepalese Rivers, Nepal, 1998.
- Preparation of Bathymetric map of Rara Lake, Nepal, 1998.
- Chatakpur Chauraha Road Project, Dhangadhi, Nepal, 1995.

Presentations

- Assessing The Efficiency Of Alternative Best Management Practices To Reduce Nonpoint Source Pollution In The Saline Bayou Watershed, Louisiana, SAEA at Atlanta, February 1-3,2015 & at 9th Annual Louisiana Groundwater, Water Resources & Environmental Symposium (April 16,2015).
- Assessing the Efficiency of Alternative Best Management Practices to Reduce Nonpoint Source Pollution in the Johnson Cute Watershed (Mississippi-Atchafalaya River Basin) AAEA at Minneapolis, July 27-29, 2014.
- Poster presentation of Comparison of Soil Water Assessment Tool (SWAT) and Generalized Watershed Loading Function (GWLF) models for Identifying Crtical Source Areas of nonpoint pollution in the Corney Bayou Watershed in the Louisiana, Louisiana Remote Sensing and GIS workshop at New Orleans: MAY 13-14, 2014.
- Identification of Optimal Best Management Practices to Reduce Nutrient and Sediment Pollution from Nonpoint Sources: A Case study of Halfway Bayou in Louisiana, 2014, SAEA, Dallas, USA.
- Hydrology of Nepal, 3rd August 2010, Cemagref, Anthony, Paris, France.
- Impact of climate change on Snow and Glacier and DHM activities towards it, WMO day 22 march 2010, Pokhara, Nepal
- Tsho-Rolpa Glacier lake,5 January 2010, ICIMOD, Nepal.
- Knowledge-Sharing workshop on climate adaptation, 'From the Mountains to the Sea: Adapting to Climate Change'at WWF-India Secretariat, New Delhi, from 23-24 November 2009.
- Application of Block wise Top Model with Muskingam Cunge rounting (BTOPMC)distributed model on Kankai Basin of Nepal, 15-16 January 2007, Kofu, Japan, Organized by University of Yamanshi, Kofu, Japan.

 Tracer Hydrology from 30 march 2008, Kathmandu, organized by Federal Office for Environment Ministry for Environmet, Traffic, Energy and Communication, Switzerland and Department of Hydrology and Meteorology, Nepal

References:

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- Keshav Bhattarai Professor of Geography School of Environmental, Physical and Applied Sciences University of Central Missouri Humphreys 223C Warrensburg, MO 64093 Phone: 660-543-8805 Fax: 660-543-8142 Email: <u>bhattarai@ucmo.edu</u>

Certification:

I, the undersigned certify to the best of my knowledge and belief, above my qualifications, experiences, and information are correctly described by me.

Signed:

Bonburkel

(Bijay Kumar Pokhrel) Date: July 21, 2015 Baton Rouge, Louisiana