

## CURRICULUM VITAE

### I. PERSONAL DATA

**Name:** POUDEL, SOM NATH

**Profession:** Arbitrator- Adjudicator/Water Resources

**Address:**

**Permanent/Present Address:**

Mayalbari 172, Teku, Kathmandu, Nepal

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**Date of Birth** : 25th February, 1945

**Nationality** : Nepali



### II. EDUCATION

- M.E. in Water Resources Engineering, Moscow Civil Engineering Institute, Moscow, 1969.
- M.A. (Nepali Literature), Tribhuvan University, Kathmandu, 1973

#### *Other Training*

- Private Sector Participation in Water and Wastewater Services in Kathmandu Valley, The Institute of Public Private Partnership, Inc., 17 to 20 June 2003
- Senior Executive Development Program, Nepal administrative Staff College, 1998
- River Law study JICA, Japan (15 days), 1996
- Farmer Participation in Small Scale Irrigation Development, (2 weeks), Philippines, 1991
- Monitoring, Evaluation, Feedback and Management of Irrigated Agricultural System, (1 month) Colorado State University, USA, 1989
- Planning and Management of Irrigation Schemes, (45 days), IIMI-EDI-ADB, Sri Lanka, 1987
- Staff Administration, (5 weeks), Public Service Commission, Kathmandu, 1986
- Irrigation System Planning and Design (4 months), Cambridge, U.K., 1982
- Project Analysis and Management, (45 days) CEDA, Kathmandu, 1979
- Irrigation and Drainage, (10 months), Japan, 1976
- Nizamati Madyma (Civil Code Intermediate), Civil Codes and Secretarial Administration, HMG Civil Board, 1960.

#### *Seminars and Conferences Attended: (Recent Only)*

- Regional Consultation on Integrated Drought Management , GWP-IWMI, 24-26 July 2010, Colombo, Sri Lanka
- GWP South Asia/Water Integrity Network-Dialogue and Training Workshop, 27-29 July 2010, Colombo, Sri Lanka
- Strategic Foresight Group, Second International Workshop on Water Security and Peace in South Asia (Himalayan River Basins), January 14-17, Dhaka, Bangladesh
- Strategic Foresight Group, First International Workshop on Challenges of Water Stress and climate Change in Himalayan River Basins, August 6-7, Kathmandu, Nepal
- Global Water Partnership Annual Meeting and World Water Week Forum, GWP, 14-23 August 2008, Stockholm, Sweden
- First Inter-Regional Consulting Partners Meeting, Global Water Partnership, 24-25 November 2007, Manila, Philippines
- South Asian Regional Water Partnership Meeting, GWP, 1-3 November Bangalore, India
- World Water Forum 4, 13-26 March 2006, Mexico City, Mexico and Tokyo, Japan
- Second Asian Meeting of Russia and CIS Graduates, 3-14 November, 2005, Hanoi, Vietnam
- First Russia and CIS Graduates Forum, 11-30 May 2003, Moscow, Russia
- World Water Forum 3, 11-24 March 2003, Kyoto, Japan

- SASTAC Forum 3, 10-15 January 2003, Islamabad, Pakistan
- Community Approach in Flood Plain Management, 3-8 November, 2002 Dhaka, Bangladesh
- Third and Annual Meeting of the South Asia Water Forum, 12-18 Dec. 2002, Islamabad, Pakistan
- International Commercial Arbitration, 7-8 March, 2000, Kathmandu, Nepal
- Study on Basin Development Approach, Mekong river Commission, Bangkok, Thailand; Phnom Penh, Cambodia; and Vientiane, Laos; 1999
- Regional conference on Flood Forecasting and Warning, Dhaka, Bangladesh, 1999
- International Seminar and 66th Annual Meeting International Commission on Large Dams ( ICOLD), New Delhi, Indian, 1999
- International Water Seminar, Securing Water Rights and Managing Water Scarcity, Dundee, Scotland, 7-8 June, 1999
- 17th Congress on World Energy Commission, Houston, USA, 1998
- Nepal Administrative Staff College, Senior Executive Development Program, Institution and HRD, Kathmandu, Nepal and Dhaka, Bangladesh
- 'Ganges Forum', International Water Resources Association, 18-20 March 1998, Calcutta, India
- Expert Meeting on Renewable Energy, Vienna International Center, Vienna, 15-17 June, 1998
- Conference on Hydrology of Ungauged Rivers, New Delhi, India, 1998
- Regional Meeting on Renewable Energy, ESCAP, Bangkok, Thailand, 1997
- International Conference on Role of Renewable Energy Technology for Rural Development, October 1998, Kathmandu, Nepal

### **III. MEMBERSHIP IN PROFESSIONAL SOCIETIES:**

- Life Member, Nepal Arbitration Council
- Member, Water and Energy Commission, July 2003 to July 2005
- Life Member, Nepal Engineers' Association
- Member, Nepal Engineering Council
- Member - Global Water Partnership
- Life Member - International Network on Participatory Irrigation Management (INPIM)
- Member - World Water Association, Mexico.
- Vice-Chairman-Jalsrot Vikas Sanstha (Water Resource Development Organization), Kathmandu
- Life Member, Mitra Kunja (Alumnae of CIS Graduates)
- Former Chairman, Farmer Managed Irrigation System Trust (FMIST) (2006-2009)

### **IV. KEY QUALIFICATIONS**

- Adjudicator, Dispute Review Board, Sikta Irrigation Project, Main Canal Construction, May 2010-Ongoing
- Adjudicator, Dispute Board, Headwork and Diversion Tunnel Construction Contract, Melamchi Water Supply Development Board, April 2010- Ongoing
- Single Arbitrator, Tier Irrigation Project, Bara, Central Regional Irrigation Division 4—PS Thodung- Thapa JV, Apr. 2010- Ongoing

- Institutional Development Expert, Formulation of the Institutional Development Vision and strategy Toward an Integrated Water Management for Agriculture, Sub-consultancy for (GITEC-NIA—EAST-PRECAR JV) Community- Managed Irrigated Agriculture Sector Project, Jan. 2010- Ongoing
- Chairman-Arbitral Tribunal, Department of Roads- M. K. – ANK Joint Venture, RNP, Road Improvement Component, (Damak-Gauriganj) – Nov. 2009 – July 2010
- Arbitrator, Bagmati Irrigation Project—M/S Lama Construction – Tashi and Phinjo(JV), 2007-08
- Independent Expert, Amicable Settlement between Sunsari-Morang Irrigation Project and China National Water Resources & Hydropower Engineering Corporation, September 2009-Ongoing
- Coordinator, Ten Year Hydropower Development Plan Formulation Taskforce ,2065, a fifteen member High Level Committee formed by the Council of Ministers of Nepal Government on Dec. 3,2008, December2008-March 2009;
- Deputy Team Leader (Nepali Team Leader) of Project Management Consultancy Services (Metcalf and Eddy et.al) to the Melamchi Water Supply Project, February 2008- March 2009
- Team Leader, Study on fixing the grants amount on all VDCs o Nepal under the Community Grants Program of the World Bank, Sep.-Dec. 2007;
- Coordinator, High Level Investigation Committee for Middle Marsyangdi Hydro-power Project , the committee is to recommend Nepal Government on delays and cost overrun of the Project; Feb.-May 2007
- Arbitration works of Sunsari Morang Irrigation Project, claim’s reply preparation for the Government to International arbitration, 2007
- Team Leader, Preparation of Design Guidelines of Water conveyance System for Hydropower Projects, 6 months, 2006
- Team Leader, Preparation of Design Manual for Hill Irrigation Systems in Nepal, 6 months, 2005
- Deputy Team Leader (Nepali Team Leader) of Project Management Consultancy Services (Metcalf and Eddy et.al) to the Melamchi Water Supply Project, 2 years, 2000-2002
- Master’s Degree in Water Resources Engineering and Water Resources and irrigation management expert.
- Worked for the last 38 years in water resources related subjects: Irrigation, hydropower, water supply, and hydrology and flood management.
- Concentrated in research and policy formulation aspects of water resources in recent years.
- Provided policy advice to the ministries of water resources and physical planning & works in Nepal.
- As a hydraulic, hydropower and irrigation engineer engaged in different activities.
- As a staff of the Department of Irrigation, mostly engaged in irrigation and agriculture related infrastructure planning, designing implementing, monitoring and evaluating activities including 16 years at senior positions.
- Specialized experience (both in technical and management roles) in project identification, preparation, appraisal, supervision and post implementation evaluation (included new capital works, rehabilitation projects etc.).
- Worked as a infrastructure specialist for IFAD in the evaluation of Farmer’s Managed Small Scale Irrigation Project.

## **V. EMPLOYMENT RECORD**

### **Nov.2009-July 2010**

- Coordinator and Technical Adviser to the Prime Minister to the Prime Minister, High Level Inspection and Monitoring Committee, Office of the Prime Minister and Council of Ministers, a five member Committee formed by the Council of Ministers to expedite the works on the priority projects.

### **Dec.2008-Mar. 2009**

- Coordinator, Ten Year Hydropower Development Plan Formulation Taskforce ,2065, a fifteen member High Level Committee formed by the Council of Ministers of Nepal Government on Dec. 3,2008;

### **Feb. 2008- Mar. 2009**

- Deputy Team Leader (Nepali Team Leader) of Project Management Consultancy Services (Metcalf and Eddy et.al) to the Melamchi Water Supply Project, February 2008- March 2009;

### **Sep. 2007 – to date: Managing Director, EARTH Consults Pvt. Ltd,**

- Team Leader on fixing the grants amount equitably of all the VDCs of Nepal, the World Bank, Nepal;

#### **July 2004 – Aug.2007**

##### **Freelance Consultant on the technical aspects of Water Resources Sector including Arbitration, and claim settlement,**

- Coordinator, High Level Investigation Committee for Middle Marsyangdi Hydro-power Project , the committee is to recommend Nepal Government on delays and cost overrun of the Project From February 2007 for about 2months,
- Team Leader for project preparation of Decentralized Community Based Irrigation Sector Project, ADB Technical Assistance, SILT Consultants, January 2007 onwards for 6 months
- Arbitration claim response preparation for Sunsari-Morang Irrigation Project , March 2006
- Team Leader, Preparation of Design Guidelines of Water conveyance System for Hydro-power Projects, July 2005-March 2006,
- Team Leader, Preparation of Design Manual for Hill Irrigation Systems in Nepal, Jan-Jun. 2005,

#### **Sep. 2003- Aug 2004**

Vice-Chairperson, Council for Technical Education and Vocational Training (CTEVT), responsible for policy formulation, future expansion, implementation of technical education and vocational training in Nepal.

#### **Dec 2001 – Aug. 2003**

Deputy Team Leader, Project Management Consultant Metcalf and Eddy et.al, Melamchi Water Supply Project, Nepal: Multi-donor financed US\$ 464 million, tran-basin diversion Kathmandu Valley Water Supply Project. This is a complex multi dimensional project.

#### **Aug. 1999 – Aug. 2003: Director, SILT Consultants (P.) Ltd.**

**Project Director/Team Leader,** Feasibility Study of Mailun Khola Hydropower Project, Rasuwa, Environmental Monitoring of Puwa Khola Hydro Electric Project, Ilam, Mahakali IP, Stage III and Second Irrigation Sector Project (SISP). Basically looked after the engineering (hydrological, hydraulics and structural) aspects of these projects. Guided in developing design parameters and supervised in preparation of design manuals/mini kits of SISP. Hydraulics Engineer for the Feasibility Study of Sharda-Babai Hydroelectric Project.

#### **From September 2000 to January 2001, Senior Hydrologist**

Study of Infrastructure Development Project of Lumbini responsible for hydrological investigation of several rivers and area within the nodal points of Bhairahawa, Butwal, Jitpur, Taulihawa and Lumbini for the design of bridges, other drainage structures and river training works. Mr. Poudel was also responsible for the design of drainages and river training works.

#### **Aug. 1997 – July 1999**

##### **Executive Secretary, Water and Energy Commission Secretariat**

Important works conducted were: **Chairman,** technical committee for Water Resources Strategy Formulation Study; Phase II- among others hydrology was the one of the component of the study, and finalisation of EIA reports of Medium Hydropower Projects. (Upper Karnali, Dudh Kosi, Kaveli, Budhi Ganga and Rahu Ghat) Adviser for sediment manual preparation for Nepalese rivers; **Coordinator** for involuntary resettlement in large infrastructure development projects (AsDB financed) ;Team Leader for review of hydropower policy; and Simulation study of Chho Rolpa GLOF situation, Chairman International Commission on Large Dams, Nepal National Committee and General Secretary, World Energy Council, Nepal National Committee. Prepared technical paper on water resources potential of Nepal to Ganga-Brahmaputra-Meghna Study Project- a track two study jointly done by Nepal, India and Bangladesh. Committee member of Chho Rolpa Glacier Lake Channelization project implemented by DHM under Netherlands assistance.

#### **Nov. 1995 –Jul 1997: Deputy Director General, PDMED, DOI**

Responsible for planning , design, monitoring and evaluation works in the Department. Assisted MOWR in negotiating Mahakali River Integrated Development Treaty. Team Leader for preparation of Irrigation

Policy (Revision 1997), policy Coordinated joint activities of DOI with the Department of Hydrology and Meteorology (DHM) in hydro-meteorological data collection and studies. Provided expert assistance to DG on Planning, design, monitoring and evaluation of **irrigation** and **drainage** projects at all stage of project cycle. Prepared request documents and appraisal reports for donor financing of irrigation projects including liaison with other ministries and donors for the projects under DOI. Checked hydraulic and hydrological design of **irrigation**, **river training** and **drainage development** works.

**Dec. 1994 - Oct. 1995: Director** (Water Resources), SILT Consultants (P) Ltd.

Principle works carried out were: **Irrigation** and **Drainage** Specialist for Nepal Environmental Policy and Action Plan, (NEPAP) Phase II, (NPC/IUCN); prepared action plan for implementation of environmentally sustainable irrigation and drainage development programs. **Project Coordinator** for Environmental Assessment of Irrigation Management Transfer Project (IMTP), USAID, June 1995; analysed **hydrology** and **drainage** situation of Khageri river after (Sagun Tote) resettlement in upper catchment and National Workshop Coordinator on Safe Drinking Water Supply and Environmental Sanitation.

**Sept. 1993 - Oct. 1995: Managing Director**, EARTH Consults (P.) Ltd.

Works performed were: **Senior Water Resources/Irrigation and Drainage Engineer** for the preparation of Water Resources Sector Diagnostic and Program Formulation Exercise (NPC/UNDP) – Issues and constraints of water resources/irrigation sector identified and future course of action suggested. Prepared Technical Paper on "Irrigation and Water Control" and drafted Irrigation Chapter for Agriculture Perspective Plan (APP) (NPC/ADB). Nepal's hydro-meteorological situation was synthesized in the report. APP policy paper principally deals with intensification of irrigation through investment in low cost technologies, rehabilitation of FMIS, and management improvements IMTP and ILC/ISP type of development has been accorded high priority. Performance evaluation of **Irrigation** and **Drainage** projects with submission of reports under the title of "Irrigation Development in Retrospect: Search for a Break through" (UNDP/NPC), **Team Leader** for Rapid Appraisal of Narayani Lift Irrigation System, Chitwan (WECS) and Inventory Study of Small Hydroelectric schemes of Dailekh District. **Drainage** and **hydrological** studies also got substantial attention in the above mentioned studies.

**Dec. 1992 - Nov. 1994: Director**, Water Resources and Senior Irrigation & Drainage Engineer, Nepalconsult (P) Ltd., **Team Leader** for detailed design of Khotang Small Hydropower Project (2.3 MW), Mainatar & Mahadevsthan Irrigation Schemes at Kavre for Bagmati Watershed project (EEC) and Lal Bakeya Irrigation Sub - project (2000 ha.) - Bara. Prepared inventory of irrigation systems in Babai catchment area of Dang District – interaction with the beneficiaries and status of WUAs were also collected, Socio-economic base line survey of Kathmandu Valley Irrigation Rehabilitation Project (JICA) – project was prepared for participatory development. Hydrologist for Bighi and Rato bridges design near Jaleswor, Mahottari.

**May 1990 - Nov. 1992: Director**, Central Regional Irrigation Directorate (CRID), Department of Irrigation. Responsible for overall regional irrigation administration; **Project Manager** for AsDB funded Irrigation Sector Project (ISP) in Central Regional Irrigation Directorate (CRID). Responsibilities included: Feasibility and detailed design checking and approval of **irrigation** and **drainage** projects, development of participatory sector approach based on farmers demand for irrigation; institutionalization of processes and procedures tested in the field; and supervision and mid-point correction of sub-project development process. Substantial contribution for the development of procedures and manuals for design and training. Several lectures delivered an irrigation project design including hydrological aspects to trainees, for both officers and technicians. Training programs were conducted under IMP, ISP and ILC.

**Team Leader/River Engineer** on Nepalese side on Nepal - India Joint Committee on **Inundation and Flood Control** Measures of border rivers. Jointly prepared and got approved from both the governments river control master plan and embankments design for three terai rivers (Lal Bakeya, Bagmati and Kamala). Construction was to be financed by the Government of India.

**Jan. 1990 - April 1990: Executive Director/Irrigation Specialist** Water and Energy Commission Secretariat.

Prepared several papers on water resources and irrigation related subjects including basic report for Farmer Managed Small Scale Irrigation (IFAD/ADB/N). Hydrology, meteorology and hydraulic aspects were his main responsibility in the team.

During this period, worked as a **Senior River/Drainage Engineer** in the team for the preparation of Master Plan of Pashupati Development Area (Religious and National Heritage) under Janch Bujh Ayog (Commission for Investigation) of Royal Palace. The plan was presented to the Chairperson of Committee **Her Majesty the Queen**.

**July 1987 - Dec. 1989: Project Manager**, Planning and Design Strengthening Project (PDSP), DOI.

Major responsibilities were: establishment of Design Criteria & Design Manuals for irrigation and drainage development and preparation of a Master Plan for Irrigation Development in Nepal. In addition to **irrigation, drainage and river control** works, hydro-meteorological and agro-meteorological issues were fully covered in the design manuals. Also extensively involved in strengthening the capabilities of the department for sub-sector planning and project design; preparation of a reconnaissance report for JICA on Geruwa Tappu FMIS (presently named Rajapur Irrigation Project), and Member of HMG/N Task Force for the preparation Participatory Management and Turnover Program Action Plans.

**March 1986 - June 1987: Section Chief/Irrigation and Drainage Engineer**, Monitoring and Evaluation Section, DOI. Involved in : follow-up works of **irrigation and drainage** development under DOI, development of project monitoring systems for implementation, management and budgetary forecasting with special emphasis on flow of fund and decentralized organizational mechanism for projects like ISP/ILC which were then being formulated; involved in formulation of WUAs in Chandra Canal and Kosi Western Canals and preparation of organizational structure and job description of DOI staff for the reorganization of the department to meet Basic Needs Program.

Prepared design guidelines for **surface irrigation, drainage and river training** in the Terai and Hills of Nepal (4 volumes), 1988-WECS/CIDA, hydrological and hydraulic design of canals and drainage were his major responsibility. Published and circulated by WECS.

UNDP constituted team member for the evaluation of hydrological network development project (UNDP funded). Field assessment of established gauge stations carried out and final assessment report submitted.

**Jan. 1986 - Feb. 1986: Project Manager**, Second Hill Irrigation Project (Seti Zone), DOI.

Responsible for planning, managing and evaluating multidisciplinary feasibility studies for hill irrigation development in the remote hill and mountain districts of Far-western Region. The project was precursor to ISP/ILC type of development.

**Oct. 1983 - Dec. 1985: Project Manager/Project Engineer**, Chitwan Irrigation Project, (11,000 ha) DOI.

Responsibilities included : Management, Planning, Design, Construction and Operation & Maintenance of large size pumped irrigation and drainage system ; initiated joint management principle in Pithuwa Irrigation Scheme, actively tried to introduce participatory approach of management in Khageri and Panchakanya Schemes, and started formation of WUAs in the Project. Actively involved in water management and ISF collection of Khageri System.

Design and construction supervision of **river training** works in Rapti, Lothar, Narayani and other rivers of Chitwan district.

Special study conducted on sediment carrying behaviour of Narayani River. Full one year was devoted for sediment data collection and study.

**1981 - 1983: Project Manager**, Babai Irrigation Project (Bardiya) financed by IDA, DOI.

Responsibilities included, Project design, planning and management of 13,500 ha. **Irrigation and drainage** system and adjacent 46 km of East-West Highway of Kohalpur - Babai Section under stage I. Took active participation in a study of farmer managed irrigation systems of Babai area and submitted a report to the World Bank. Studied and prepared tenancy rights and bonded labor situation in Babai command area. Hydrological simulation of the Babai was carried out in Cambridge UK by him and his associate Design and construction supervision of **river training** works of Babai river.

**1978 - 1981: Executive Engineer/Sr. irrigation Expert** Chitwan Irrigation Project, DOI.

Overall technical in-charge for design, construction management and supervision of **irrigation, drainage and river training** works of the project. Responsible for O&M of Khageri Irrigation Scheme (3900 ha.). Actively involved in water management issues and developed a consensus method of water allocation,

jointly with the farmers of Khageri, Panchakanya and Pithuwa Schemes. Also involved in resources mobilization and ISF collection. Conducted rating curve development works of key hydraulic structures of the project.

**1976 - 1978: Divisional Engineer**, Kamala Irrigation Project, (Dhanusa), DOI.

As a **Team Leader** and **Chief** of Canal Division involved in survey, design and construction supervision of canal and drainage systems and river training works of the project, managed the work of the division and actively participated in the **irrigation, drainage and river training** construction program of the project. In Eastern Canal System worked as construction supervision chief whereas in Western System also worked as an irrigation management chief and carried out canal calibration works as well. During this period hydraulic design of canal and drainage and hydrological calculations of major drains were carried out.

**1973 - 1976: Irrigation, Drainage and River Engineer**, Kankai Irrigation Project (Jhapa), DOI.

Involved in irrigation and drainage system survey, planning, detailed design and construction management, engaged in the feasibility study of Kankai Multi-Purpose Project with Saltz-Gitter (FRG). Analysed river hydrology and hydraulics of key structures. Fixed washed away gauge station in Kankai River. **Irrigation, drainage and river training** works designed with Nippon Koei (Japan) in a capacity of Consultant's Team Engineer.

**1971 - 1973: Project-in-Charge/Team Leader**, Hardinath Irrigation Project (2000 ha) (Dhanusa), DOI.

Responsible for water management and O&M, primarily engaged in providing efficient irrigation services and ISF collection. Rating curves of key hydraulic structures were developed.

**1970 - 1971: Project-in-charge/Team Leader**, Chaurjahari Tar Irrigation Project (Rukum), DOI.

Works included detailed feasibility study of the project, detailed design and construction supervision. Gauge station fixation and hydrological data collection and analysis carried out.

**1969 - 1970: Supervising Engineer**, Inguri Hydro-Power Project (Republic of Georgia, the then USSR)

Worked in the Tunnel Section of the project. It has one of the highest arch dam in the world. Reviewed and studied hydrological calculations and hydraulic design of the project.

#### **Other Experience:**

**1986 - 1988: Free Lance Consultant**, preparation of irrigation related reports. Important contribution in this period was preparation of Design Guidelines for Surface Irrigation in the Terai and Hills of Nepal, (WECS/ CIWES).

**1971 - 1973:** Global Consultants: involved in the design of Khaireni Tar Mini-Hydro-electric Project. This project was totally financed by German Government.

#### **VI. PUBLICATIONS/GOVERNMENT PAPERS**

- Guidelines for Community Participation in Flood Management, WMO/JVS, Kathmandu, Nepal, July 2004
- Guidelines for the Estimation of Probable Maximum Floods, Proceedings of the Golden Jubilee Seminar of DOI, IWMI/DOI, Kathmandu, Nepal, 2003
- Nepalma Sinchai (Nepali)- Irrigation in Nepal: Hydraulic Civilization and Institutional Development, Book, Published by Jalasrot Vikas Sanstha, Apr. 2003, Kathmandu, Nepal
- Community Participation in Flood Management, WWF-3, Kyoto, 2003
- Flood Management in Nepal, World Water Forum (WWF)-3, Kyoto, Japan, 2003
- Preparation of constitution and regulation of World Energy Council, Nepal Chapter, 1999
- Hydrological Analysis of ungauged rivers in Nepal, ICIMOD/AHEC, New Delhi, India, 1999
- Sustainability of Irrigation Infrastructure in Nepal, Nepal Engineers' Association, May 1994.
- Irrigation & Water Control - Technical Paper for Agriculture Perspective Plan NPC/ADB/M, 1994 and Chapter on Irrigation of APP main document, 1995.
- Irrigation Profile of Nepal, Research and Training Branch, Department of Irrigation, Kathmandu, Nepal, 1992.
- Master Plan for Irrigation Development in Nepal, DOI, 1990
- Development of Design Criteria and Design Manuals for Irrigation Projects in Nepal, DOI, 1990.
- Irrigated Agriculture for Rural Development and Development Planning for Water Resources in Nepal, ICID, Japan, 1989.

- Action Plan for Participatory Management Program, DOI, 1989.
- Design Guidelines for Surface Irrigation in the Terai and Hills of Nepal, 1988 (three volumes)-WECS/CIDA.
- Irrigation development in Nepal, Manaslu Press, Kathmandu, 1986.

#### **VII. SEMINARS**

Attended more than 100 National and International Seminars related with irrigation development, water management, flood control, river basin studies and hydropower development.

#### **VIII. AWARDS**

Trishakti Patta III, 1996, Gorkha Dakshinbahu III, 1991, Janamat Sangraha Padak, 1979, Shuva Rajyavishek Padak, 1973, and Mahendra Vidya Bhusan, 1970

#### **IX. LANGUAGE:**

Mother Tongue: Nepali

Other Languages: English (read, write, understand easily and speak fluently)

Hindi (read and understand easily, speak fluently, write not easily)

Russian (read, write, understand and speak fluently)

#### **X. CERTIFICATION**

I, the undersigned, certify that to the best of my knowledge and belief, this bio-data correctly describes me, my qualifications and my experience

\_\_\_\_\_  
Signature

Date: \_\_\_\_\_  
Day/Month/Year