1. Name: Senior Geologist

**2. Date of Birth:** November 24, 1996

3. Current Position: Senior Geologist, Druk Green Consultancy (DGC)

**4. Current Organization:** Druk Green Power Corporation Limited (DGPC)

5. Country: Bhutan

#### 6. Academic/Education:

Degree	Name of Institute	Year	Funding		
Bachelor Degree in Geology	Panjab University, Chandigarh	2015 -2018	DGPC		

#### Languages:

Language	Speaking			Reading			Writing		
	Good	Fair	Poor	Good	Fair	Poor	Good	Fair	Poor
English	<b>√</b>			V			$\sqrt{}$		
Dzongkha	V			V				V	
Hindi	<b>√</b>								
Nepali									

Period	Employing organization and title/position.	Responsibilities/Summary of activities undertaken
January 2024 - Present	Druk Green Power Corporation Ltd. (DGPC)/Senior Geologist, Druk Green Consultancy (DGC)	<ul> <li>Detailed Project Report (DPR) update of 1,125 MW         Dorjilung Hydropower Project</li> <li>Monitoring of exploratory core drilling works at         dam complex of Punatsangchhu Hydropower         Project Authority I.</li> <li>Provide backstopping services in geotechnical         engineering aspects to DGPC existing plants and         subsidiaries companies</li> </ul>
June 2018 – December 2023	Druk Green Power Corporation Ltd. (DGPC)/Geologist, Druk Green Consultancy (DGC)	<ul> <li>DPR update of 404 MW Nyera Amari- I&amp;II         Integrated Hydropower Project</li> <li>Geotechnical assessment stability issue at Kuenga         Rabten, Trongsa</li> <li>Geological assessment to arrest leakage from the         right bank of dam at Chukha Hydropower Project</li> <li>Proposed technical remedies for stability issue at         water conductor system of Lubichu diversion         scheme, Chukha Hydropower Plant</li> <li>Assessment to realign Arekha bypass due to         stability issue, Tala Hydropower Project</li> </ul>

Stability assessment along reservoir rim, Kurichhu Hydropower Plant Hydrogeological assessment for Dorjilung Hydropower Project DPR of Lunana Mini Hydropower Project, Gasa Geological assessment between Arekha and Sinchekha for construction of bypass tunnel, Tala Hydropower Project Geological mapping along reservoir rim of Nikachhu, Tsangsibji Hydro Energy Limited Stability assessment for landslide area at Bridge no.5, Tala Hydropower Plant Study and design of stabilization measures for powerhouse cavern of Tala Hydropower Plant Study on stability issue at Sinchekha and Arekha colony, Tala Hydropower Plant Reconnaissance study and Pre-Feasibility Study (PFS) of Integrated 740 MW Gongri Hydropower Project and 1,800 MW Jeri Pumped Storage Project DPR of Puna-I Barrage as an alternative option PFS and Feasibility Study (FSR) reports of Phase-I projects: MW Burgangchhu HPP, 32 MW Yungichhu HPP, 18 MW Suchhu HPP FS of Phase-II projects: 54 MW Gamri-I HPP & Bamukparong Integrated and 90 MW Jomori HPP Assessment on development of expertise on geological and geotechnical investigations

Provide backstopping services in geotechnical engineering aspects to DGPC existing plants and

subsidiaries companies.

#### **Training Undertaken:**

1	Online training on "Empowering Women in Geospatial Information Technology – 2023 edition" from 13–16 June, 2023
2	Hands on workshop on "MIDA FEA NX and its Application on Hydropower, Tunneling and Slope Stability" organized by MIDAS Research & Development Center, India from December 25 – 28, 2023 in Thimphu, Bhutan
3	Training on "7 Habits of Highly Effective People" from February 13 – 15, 2020 in Thimphu, Bhutan
4	Online session on "Geophysical Investigations for Dam Safety" on 30 May, 2020
5	The 4th international conference on "Geotechnics for Sustainable Infrastructure Development" organized by FECON Corporation, the Vietnamese Society for Soil Mechanics and Geotechnical Engineering (VSSMGE) from November 28-29, 2019 at the National Convention Center, Hanoi, Vietnam
6	13th Annual Conference conducted by DGPC on December 14, 2019 at Kurichhu Hydropower Plant Mongar, Bhutan
7	3rd DGPC Technical Conference themed "New Decade, New Challenges" conducted from December 12-13, 2019 at Kurichhu Hydropower Plant, Mongar, Bhutan
8	Training on "Technical Report Writing Skills" from November 13-15, 2019 at Tala Hydropower Plant Chukha, Bhutan
9	Seminar on "Issues and stabilization measures of Powerhouse Caverns, Tala Hydropower Plant" from September 11-12, 2019 in Thimphu, Bhutan

- Capacity building workshop on "Glaciology and Disaster Risk Reduction" from May 20-25, 2019 at Royal
  10 University of Bhutan, Thimphu organized by College of Natural Resources, Bhutan and University of
  Fribourg, Switzerland
- Training on "Rock Mechanics" conducted by Central Soil and Material Research Stations from December 29-30, 2018 in New Delhi, India

## 7. Membership details of research experience/publications/special achievement (if applicable) Special Achievements/Membership details:

- Attended Donors/Bankers consultative Meeting for Dorjilung Hydropower Project from July 3-4, 2023
  at Thimphu, Bhutan. Ministry of Finance, Ministry of Energy and Natural Resources, Druk Holding
  and Investments Limited, Druk Green Power Corporation, Bhutan Power Corporation and International
  Partners such as World Bank, ADB, JICA, European Investment Bank, OPEC Fund, Saudi Fund,
  Kuwait Fund and SAARC Development Fund attended the consultative meeting.
- Organized seminar on "Issues and stabilization measures of Powerhouse Caverns, Tala Hydropower Plant" from September 11 12, 2019 in Thimphu, Bhutan
- Presented technical paper on "3s (stress, strain and structures) and the case study of stability issue of Tala powerhouse cavern" on 3<sup>rd</sup> DGPC Technical Conference, 2019
- Organized 3<sup>rd</sup> DGPC Technical Conference themed "New Decade, New Challenges" at Kurichu Hydropower Plant, Mongar from December 12-13, 2019

#### **Certification:**

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes me, my qualifications and my experience.

Japan

**Signature** 

1. Position Proposed: Engineering Geologist 2

2. Current Position: Geologist, Druk Green Consultancy (DGC)

3. Current Organization: Druk Green Power Corporation Limited (DGPC)

4. Country: Bhutan

#### 5. Academic/Education:

Degree	Name of Institute	Year	Funding
	College of Science and Technology, Phuentsholing, Bhutan	2019-2023	Royal Government of Bhutan

## Languages:

Language	Speaking			Reading			Writing		
	Good	Fair	Poor	Good	Fair	Poor	Good	Fair	Poor
English	$\sqrt{}$			$\sqrt{}$			V		
Dzongkha	<b>√</b>			$\sqrt{}$				$\sqrt{}$	
Hindi		V							
Nepali		V							

Period	Employing organization and title/position.	Responsibilities/Summary of activities undertaken
August 2023 - Present	Druk Green Power Corporation Ltd. (DGPC), Druk Green Consultancy (DGC) Geologist	<ul> <li>Field mapping and hydrogeological assessments of the spring sources and streams for Dorjilung Hydropower Project to ascertain the probable volume of water ingression that is likely to occur during underground excavation.</li> <li>Slope stability and landslide susceptibility mapping of the reservoir stretch and around vicinity of the project area for Dorjilung Hydropower Project.</li> <li>Maintenance of daily drilling reports and, review of core logs and pictures for the drilling works (Dorjilung Hydropower Project).</li> <li>Preparation of geological cross sections and longitudinal sections mostly for Gamri-I HPP and Begana HPP.</li> </ul>

1	Training on MIDAS FEA NX software provided by Mr. Harsha Tadavarti, Sr. Geotechnical Engineer from MIDAS Research and Development Centre Pvt. Ltd., India from the 25 <sup>th</sup> to the 27 <sup>th</sup> of December,
	2023.

2	Seminar on 'Insight to Civil Engineering Projects-Geotechnical Monitoring, Tunneling and
~	Infrastructure' organized by the Druk Green Power Corporation Ltd. in collaboration with the Austrian
	Development Cooperation from the 17 <sup>th</sup> to 19 <sup>th</sup> April, 2023

## **Certification:**

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes me, my qualifications and my experience.

1. Position Proposed: Hydraulic Engineer

2. Current Position: Executive Engineer, Druk Green Consultancy (DGC)

3. Current Organization: Druk Green Power Corporation Limited (DGPC)

4. Country: Bhutan

## 5. Academic/Education:

Degree	Name of Institute	Year	Funding
Masters in Geotechnical and Hydraulic Engineering	Graz University of Technology, Graz, Austria	2021-2023	Government of Austria
Bachelor Degree in Civil Engineering	College of Science and Technology, Phuentsholing, Chhukha, Bhutan	2007-2012	Royal Government of Bhutan

#### Languages:

Language	Speaking		Reading			Writing			
	Good	Fair	Poor	Good	Fair	Poor	Good	Fair	Poor
English	<b>√</b>			$\sqrt{}$			V		
Dzongkha	<b>√</b>			<b>V</b>				V	
Hindi	<b>√</b>								
Nepali	<b>√</b>								

## 6. Employment Record/Work Experience:

Period	Employing organization and title/position.	Responsibilities/Summary of activities undertaken
January 2024 - Present	Druk Green Power Corporation Ltd. (DGPC)/Executive Engineer, Druk Green Consultancy (DGC)	Tender Evaluation Committee (Lead) and preparation of evaluation report of the Expression of Interest for review and updation of DPR and ESIA for Nyera Amari I (112 MW) & II (292 MW) integrated hydropower project in Bhutan.

December 2021- December 2023	Basochhu Hydropower Plant, DGPC/Assistant Executive Engineer, Civil Unit	<ul> <li>Preparation of cost estimate and drawings for resurfacing of roads at Thimphu mini hydel plant. (2023)</li> <li>Preparation of estimate and drawings for renovation of powerhouse building of Chanchey mini hydropower plant. (2023)</li> <li>Preparation of estimate and drawings for repairing of Basochhu intake toe wall. (2023)</li> <li>Repair and maintenance of Tshira colony roads and plinth of Rurichhu and Tshira colony. (2023)</li> <li>Budget preparation for financial year 2024 as well as Budget review for 2023.</li> <li>Monitoring of Penstock displacement, Water Seepage from Surge Shaft &amp; Basochhu Intake and Geotechnical Instrumentation Works. (2023)</li> </ul>
June 2016 – November 2021	Mangdechhu Hydroelectric Project Authority (MHPA-720 MW), /Assistant Executive Engineer, Dam Complex	<ul> <li>Construction and completion of Diversion Tunnel &amp; Plug, Dam, Spillways &amp; Coffer Dams, Intake Structure, Intake Tunnels, Branch HRT, SFT, Branch SFT, Adit to Desilting Chambers, Adit to GOC of DC, GOC of DC, Adit to GOC of SFT, GOC of SFT, Vertical shaft and 2 nos. Desilting Chambers.</li> <li>Supervision, construction and completion of Dam control room building, D.G room building, Machine room building, Power Pack rooms (2 nos.), control valve room and illumination works of Dam.</li> <li>Supervision and construction of Access roads to various project components.</li> <li>Monitoring and execution/supervision of HRT Construction works for Adit III (Face V &amp; VI) and Dam Construction works as Shift In-charge.</li> <li>Preparation and record entry of monthly running account bill of the Dam Complex works.</li> <li>Carried out the Task Force observation (punch list) works of Dam Complex.</li> <li>Controlled and managed the Shift vehicles for delivering proper service and also prepared the monthly bill of shift vehicle.</li> <li>Rate Analysis of works and negotiations of works.</li> <li>Resolve contractual issues including claims of contractors.</li> <li>Reconciled Running Account Bills (till 94 RAB) of Dam Complex.</li> <li>Review of As-built drawings and preparation of</li> </ul>

		Completion Report for Dam Complex (C-1 Package), MHPA.  Closing of Dam Complex and successful commissioning of Mangdechhu Hydroelectric Project Authority.
July 2012 – May 2016	Basochhu Hydropower Plant, DGPC/Assistant Engineer, Civil Unit	<ul> <li>Led the Civil Unit Team for planning and construction of Chorten near Glass House at BHP. (2012)</li> <li>Preparation of Annual Budget for the Civil Unit including procurement of Contract Works, Services and Materials. (2012-2016)</li> <li>Monitoring, Supervision and construction of both Capital and Running &amp; Maintenance Works including all civil works. (2012-2016)</li> <li>Preparation of RA Bills and Completion Report for the Completed Works including updating of works in SAP system - PS Module &amp; PM Module. (2012-2016)</li> <li>Resolve contractual issues including preparation of tender documents and bid evaluation. (2012-2016)</li> <li>Repair and maintenance work of Hydropower Structures. (2012-2016)</li> <li>Preparation of Cost Estimate for repair and maintenance of old quarters at Rurichhu Colony &amp; fencing at Basochhu Intake including planning, supervision and execution work. (2013)</li> <li>Planning, design, drawings, construction and preparation of Cost Estimate &amp; Technical Specification for the work "Construction of Security Duty Room with attached toilet at Surge Shaft" including cost estimates for repair and maintenance of road at BHP. (2014)</li> <li>Preparation of design drawings and Estimate for Workshop near Lower Stage Power House, retaining walls, drains and platform at BHP. (2015)</li> </ul>

1	Attended and successfully completed Training Program on "Design Analysis of Concrete Gravity Dam Software Applications" organized by Engineering Staff College of India, Hyderabad, India from 18 <sup>th</sup> to 22 <sup>nd</sup> December 2017.
2	Attended Sixth International Conference & Exhibition on Water Resources & Hydro Power Development in Asia in Vientiane, Lao PDR from 1 <sup>st</sup> to 3 <sup>rd</sup> March 2016.
3	Attended In-House Training on "Dam Safety" held at Kurichhu Hydropower Plant, Bhutan from 15 <sup>th</sup> to 17 <sup>th</sup> October 2015.

4	Participated in the training on "Contract Management and Dispute Resolution in Engineering Projects" organized by Engineering Staff College of India, Hyderabad, India from 18 <sup>th</sup> to 22 <sup>nd</sup> May 2015.
5	Attended training on "SAP-ERP on Plant Maintenance (PM) Module" held at Thimphu, Bhutan from 23 <sup>rd</sup> to 24 <sup>th</sup> March 2015.
6	Attended training on "Deformation Survey using Leica Nova TM50 instrument and software" conducted at Basochhu Hydropower Plant from 4 <sup>th</sup> to 9 <sup>th</sup> March 2015.
7	Attended training on "Conventional Tunnelling" in Thimphu, Bhutan organized by the ITA-AITES from 12 <sup>th</sup> to 13 <sup>th</sup> September 2014.
8	Participated in the training on "Leakages and Water Proofing Treatment in Buildings" organized by Engineering Staff College of India, Hyderabad, India from 2 <sup>th</sup> to 6 <sup>th</sup> September 2014.
9	Attended training on "3D AutoCAD" conducted by the Athang Training Academy, Bhutan from 11 <sup>th</sup> to 15 <sup>th</sup> August 2014.
10	Attended training on "SAP-ERP on Project System (PS) Module" held at Thimphu, Bhutan from 24 <sup>th</sup> to 26 <sup>th</sup> January 2013 and from 9 <sup>th</sup> to 12 <sup>th</sup> January 2015.
11	Did a course on "Office Productivity Tools (MS-Word, MS-PowerPoint, MS-Excel)" conducted by NIIT.

#### 8. Special achievement (if applicable):

- Letter of Appreciation (Certificate) from the Minister, Ministry of Economic Affairs, Royal Government of Bhutan for the hard work and efforts that I have made towards the successful commissioning of 720 MW Mangdechhu Hydroelectric Project Authority in 2020.
- Austrian Government Funded Scholarship to pursue a Master's Degree in Geotechnical & Hydraulic Engineering in 2021.

#### **Certification:**

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes me, my qualifications and my experience.

1. Proposed Position: Dam Engineer

2. Current Position: Assistant Engineer Civil, Druk Green Consultancy DGC)

3. Current Organization: Druk Green Power Corporation Limited (DGPC)

**4. Country:** Bhutan

## 5. Academic/Education:

Degree	Name of Institute	Year	Funding	
Bachelors of Technology in Civil Engineering	Sri Venkateswara College of Engineering and Technology, Chittoor, Andra Pradesh, India	2014-2018	Indian Council for Cultural Relations (ICCR)	

## 6. Languages:

Language	Speaking		Reading			Writing			
	Good	Fair	Poor	Good	Fair	Poor	Good	Fair	Poor
English	<b>√</b>			V			<b>V</b>		
Dzongkha	$\sqrt{}$			V				V	
Hindi	<b>√</b>								
Nepali	√								

## 7. Work Experience:

Period	Employing organization and title/position.	Responsibilities / Summary of activities undertaken				
December 2021-present	Druk Green Power CorporationLtd. (DGPC)/Assistant Engineer (Civil), Druk Green Consultancy (DGC)	<ul> <li>Preparation of drawings for Detailed Project Report (DPR) of 90 MW Jomori Hydropower Project, Samdrupjongkhar for components such as Intake, Surge shaft, Tshanglari Side Adit, Tail Race Channel etc.</li> <li>Preparation of ToR for Hydraulic Model Studies for Dam, Intake, and Desilting Chamber.</li> <li>Preparation of DPR schedule, construction program and report for 90 MW Jomori Hydropower Project, Samdrupjongkhar.</li> <li>Preparation of construction schedule for Phase I Projects (54 MW Burgangchhu Hydropower Project, 32 MW Yungichhu Hydropower Project, 18 MW Suchhu Hydropower Project).</li> <li>Hydraulic design and preparation of report for DPR of 25MW Begana Integrated Multipurpose Hydropower Project, Thimphu.</li> <li>Preparation and overall coordination of component</li> </ul>				

- drawings for the DPR of 25MW Begana Integrated Multipurpose Hydropower Project.
- Preparation of DPR schedule, construction program and report for 25MW Begana Integrated Multipurpose Hydropower Project.
- Preparation of DPR schedule, construction program and report for (40+14) MW Gamri I and Bamukparongchhu Integrated Hydropower Project, Trashigang.
- Hydraulic Design checks for (18+8) MW Druk Bindu I&II Hydropower Project for the purpose of Tendering.
- Revision and preparation of drawings of components for Tendering of (18+8) MW Druk Bindu I&II Hydropower Project, Samtse.
- Preparation of Tender schedule for (18+8) MW Druk Bindu I&II Hydropower Project.
- Revision and preparation of drawings of components for Tendering of (40+14) MW Gamri I and Bamukparongchhu Integrated Hydropower Project.
- Preparation of Tender schedule for (40+14) MW Gamri I and Bamukparongchhu Integrated Hydropower Project.
- Preparation of Tender schedule for 90 MW Jomori Hydropower Project, Samdrupjongkhar.
- Overall coordination of drawings for (40+14) MW Gamri I and Bamukparongchhu Integrated Hydropower Project and (18+8) MW Druk Bindu I&II Hydropower Project.
- Evaluation Team for Pre-qualification of Bidders for 404 MW Nyera Amari and 180 MW Bunakha Hydropower Project.

Period	Employing organization and title/position.	Responsibilities / Summary of activities undertaken
July 2020- November 2021	School Infrastructure Development Division (SIDD), Ministry of Education and Skills Development/Site Engineer	<ul> <li>Site supervision for the construction of 200 bedded girls' and boys' hostel, 6-unit staff quarter and Academic toilets for Tendruk Central School, Samtse.</li> <li>Site supervision for the construction for Academic block and Academic toilets for Namgaycholing Primary School, Samtse.</li> <li>Site supervision for the construction for 200 bedded girls' and boys' hostel, Dining hall and Academic toilets for Peljorling Higher Secondary School, Samtse.</li> <li>Site supervision for the construction of ECCD Centre for Pemaling gewog, Samtse.</li> <li>Preparation of progress report and timely follow-up of the construction activities.</li> <li>Verification of Bills.</li> </ul>
January 2019- June 2020	Thimphu Thromde/Asset Manager	<ul> <li>Overall Management and coordination of the inventories of Thimphu Thromde.</li> <li>Focal Person for Digitized Asset Registrar System.</li> <li>Supervision of the infrastructures generating monthly income.</li> </ul>

1	Attended and successfully completed Training Program on Tender and Contract Management jointly organized by Thimphu Thromde and College of Science and Technology from 27th to 31st January 2020, Richending, Phuntsholing, Bhutan.
2	Attended and successfully completed Training Program on usage of Oracle Primavera Software P6 EPPM from 3 <sup>rd</sup> to 7 <sup>th</sup> May 2022, in Thimphu, Bhutan.
3	Attended Workshop on "Planning & Design of Hydropower Headworks in Sediment Loaded Rivers", organized by Hydro Lab, Nepal and International Centre for Hydropower (ICH), Norway from 2 <sup>nd</sup> to 9 <sup>th</sup> November 2022 in Kathmandu, Nepal.
4	Attended Workshop on Pumped Storage Hydropower Project organized by ANU PSH Global Atlas and Department of Energy from 1st to 5th May 2023, Thimphu, Bhutan.
5	Attended and successfully completed Online Self-paced Training Program on Level 1 of e-learning Course on Ethics and Integrity organized by The Anti-Corruption commission and Druk Holding and Investments on 6 <sup>th</sup> July 2023.
6	Attended Workshop on Environmental Flow delivered by Mr. Guillaume Prudent Richard, Team Leader from Artelia, France (Consultant for ESIA update of Dorjilung HPP) on 26th September 2023, in Thimphu, Bhutan.
7	Attended session on Geological baseline Report delivered by Mr. Dean R. Brox, Geology Expert (EDSPRP) on 29th September 2023, in Thimphu, Bhutan.

8	Attended Workshop on Dam safety and earthquakes on 9th October delivered by Dr. Martin Wieland, Chairman Committee on Seismic Aspects of Dam Design (ICOLD: International Commission on
	Large Dams) in Thimphu, Bhutan.
9	Attended and successfully completed Hands-On Workshop on Midas FEA NX and its applications in the area of hydropower, Tunneling and Slope engineering organized by MIDAS Research and Development Centre India Pvt. Ltd. at Druk Green Power Corporation, Bhutan from 25th December 2023 to 28th December 2023.
10	Attended and successfully completed Flow-3D Hands-On Training organized by Flow Science India from 25th to 27th October 2023, in Thimphu, Bhutan.
11	Attended training on statistics related to hydrological analysis delivered by Studio Pietrangeli (Consultant for Dorjilung HPP) on 1st February 2024.

## Certification:

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes me, my qualifications and my experience.

1. Proposed Position: Structural Engineer

2. Current Position: Assistant Civil Engineer Druk Green Consultancy (DGC)

3. Current Organization: Druk Green Power Corporation Limited (DGPC)

4. Country: Bhutan

## 5. Academic/Education:

Degree	Name of Institute	Year	Funding
Bachelor Degree in Civil Engineering	Jaypee University of Information Technology, Solan, Himachal Pradesh, India	2018-2022	Kings Scholarship

## Languages:

Language	Speaking		Reading			Writing			
	Good	Fair	Poor	Good	Fair	Poor	Good	Fair	Poor
English	$\sqrt{}$			V			V		
Dzongkha				V			V		
Hindi	V								
Nepali									

Period	Employing organization and title/position.	Responsibilities/Summary of activities undertaken					
May 2023- Present	Druk Green Power Corporation Ltd. (DGPC), Druk Green Consultancy (DGC) Assistant Engineer (Civil)	<ul> <li>Design of retaining walls such as gabion wall, for the construction of project roads of small hydropower projects (Suchhu HPP, Burgangchhu HPP &amp; Yungichhu HPP) including preparation of construction drawings.</li> <li>Preparation of detailed construction drawings of the concrete structure outline drawing of different components such as Headworks, Desilter, and Tail Race Channel of the small hydropower projects.</li> <li>Preparation of detailed structural and excavation drawings Tunnel portal, Surge Tube and Vertical bottom up drop shaft rock support of the small hydropower projects.</li> </ul>					

<ul> <li>Preparation of construction drawings of flood/river protection walls of headwork components and powerhouse complex of small hydropower projects mostly for (Suchhu HPP &amp; Yungichhu HPP).</li> </ul>
<ul> <li>Preparation of drawings of steel lining of Desilter chamber structure of the small hydropower projects mostly for (Suchhu HPP &amp; Yungichhu HPP).</li> </ul>
<ul> <li>Preparation of construction drawings of Pipe Bedding &amp; Backfill material for Steel Pipes of Yungichhu, Suchhu and Burgangchhu HPP</li> </ul>

1	Training on Flow-3D Hydro organized by Flow Science, India (Mr. @Pankaj Lawande and Mr. Anurag) from October 25-27,2023.
2	Training on MIDAS FEA NX software (December 25-27, 2023) provided by Mr. Harsha Tadavarti, Sr. Geotechnical Engineer from MIDAS Research and Development Centre Pvt. Ltd., India.

#### **Certification:**

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes me, my qualifications and my experience.



1. Position Proposed: Underground Tunnel Engineer

2. Current Position: Executive Engineer Civil, Druk Green Consultancy (DGC)

3. Current Organization: Druk Green Power Corporation Limited (DGPC)

4. Country: Bhutan

## 5. Academic/Education:

Degree	Name of Institute	Year	Funding
NATM Master of Engineering	Graz University of Technology, Austria	2017-2019	Austrian Development Agency (ADA)
Bachelor Degree in Civil Engineering	College of Science and Technology, Bhutan	2006 -2010	Royal Government of Bhutan

#### Languages:

Language	Speaking			Reading			Writing		
	Good	Fair	Poor	Good	Fair	Poor	Good	Fair	Poor
English	$\sqrt{}$			V			V		
Dzongkha	<b>V</b>			V			V		
Hindi	<b>V</b>								
Nepali		$\sqrt{}$							

Period	Employing organization and	Responsibilities/Summary of activities			
1 61100	title/position.	undertaken			

March 2021 – Present	Druk Green Power Corporation Ltd. (DGPC)/Executive Engineer Civil, Druk Green Consultancy (DGC)	<ul> <li>Carried out the Pre-Feasibility Study (PFS) and Feasibility Study (FSR) reports of Phase-I projects: 54 MW Burgangchhu HPP, 32 MW Yungichhu HPP, 18 MW Suchhu HPP, Phase-II projects; 54 MW Gamri-I HPP &amp; Bamukparong Integrated, Begana HPP and 90 MW Jomori HPP. Involved in design of underground structures, slope protection, construction methods &amp; equipment planning.</li> <li>DPR updates of Dorjilung HPP (1,125 MW), Nyera Amari- I&amp;II Integrated HPP (404 MW), Druk Bindu Stage-I &amp;II HPP (26 MW). These studies involved in alternative studies, design of underground structures, slope protection, construction methods &amp; equipment planning.</li> <li>Preparation of ToR frameworks of Construction Supervision, and Quality Assurance (CSQA), Operation &amp; Maintenance Plan (O&amp;M) and Instrumentation monitoring plan in line with World Bank's ESS4 guidelines.</li> <li>Numerical stability analysis of tunnels and underground caverns using Rocscience software.</li> <li>Repair and Maintenance of Head Race Tunnel (HRT) of 1020 MW Tala Hydropower Plant.</li> <li>Tendering and procurement of construction equipment for Tala HRT repair works.</li> <li>Construction planning and program for Tala HRT repair works.</li> <li>Construction planning and program for Tala HRT repair works.</li> <li>Tender evaluation of Phase-I of small hydropower projects; Burgangchhu, Yungichhu and Suchhu.</li> <li>Tender evaluation for recruitment of panel of experts for design and engineering services for implementation of Phase-I Hydropower Projects; Burgangchhu, Yungichhu and Suchhu.</li> <li>Backstopping work for hydropower plants with implementation of instrumentation and monitoring works.</li> </ul>
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Period	Employing organization and title/position.	Responsibilities/Summary of activities undertaken
		Provide backstopping services in design and engineering to DGPC existing plants and subsidiaries companies.
January 2018 – February 2021	Druk Green Power Corporation Ltd. (DGPC)/Assistant Executive Engineer Civil, Hydropower Research & Development Center (HRDC)	<ul> <li>Commenced a Centre of Excellence in Civil &amp; Geotechnical Engineering (CoECGE) Office in HRDC under Projects Department.</li> <li>Executed the Capacity Development Training Assistance (CDTA) project for monitoring safety of hydropower plants.</li> <li>Monitoring Instrumentation of Punatsangchhu Hydroelectric Project and existing hydropower plants.</li> <li>Bathymetric Survey for all reservoirs of existing hydropower plants for sedimentation studies.</li> <li>Cement and Chemical grouting work for dam and tunnel structures of existing hydropower plants.</li> <li>Applied research works relevant to hydropower structures.</li> </ul>
February 2012 –July 2017	Deputation to Mangdechhu Hydroelectric Project Authority/ Assistant Engineer Civil	<ul> <li>Construction of Approach roads to Head Race Tunnel (HRT) including slope protection works.</li> <li>Design, drawings and construction of site offices.</li> <li>Construction supervision of the construction adit including portal development and slope protection works.</li> <li>Monitoring and execution/supervision of HRT Construction works for Adit IV (Face 7 &amp; 8) and Dam Construction works as Shift In-charge.</li> <li>Site measurement and rate analysis works pertaining to HRT and Dam head works.</li> <li>Concrete lining works of HRT, desilting chambers and associated components.</li> <li>Construction and supervision of Dam, Spillways Intake Structure, Intake Tunnels, Branch HRT, SFT, Branch SFT, Adit to Desilting Chambers, Adit to GOC of DC, GOC of DC, Adit to GOC of SFT, GOC of SFT, Vertical shaft and 2 nos. Desilting Chambers.</li> <li>Preparation and record entry of monthly running account bill of the HRT and Dam Complex works.</li> <li>Rate analysis and contract negotiation works of HRT and Dam head works.</li> <li>Controlled and managed the Shift vehicles for delivering proper service and also prepared the monthly bills of shift vehicle.</li> </ul>

		<ul> <li>Resolve contractual issues including claims of contractors.</li> </ul>
November 2010 –January 2012	Basochhu Hydropower Plant/Assistant Engineer Civil	<ul> <li>Carried out the engineering construction supervision of road works, building works and slope protection works.</li> <li>Repair and maintenance work of Hydropower Structures.</li> <li>Preparation of cost estimate and drawings for resurfacing of roads and civil structures.</li> <li>Monitoring of Penstock displacement, Water Seepage from Surge Shaft &amp; Basochhu Intake and Geotechnical Instrumentation Works.</li> <li>Management of master roll laborer for civil maintenance works.</li> </ul>

1	Statistics Training on Hydrology by Consultant Studio Pietrangeli. at Druk Green Power Corporation, Bhutan from 1 <sup>st</sup> to 2 <sup>nd</sup> February 2024.
2	Hands-On Workshop on Midas FEA NX and it's applications in the area of hydropower, Tunneling and Slope engineering organized by MIDAS Research and Development Centre India Pvt. Ltd. at Druk Green Power Corporation, Bhutan from 25th December 2023 to 28th December 2023.
3	Hands-On training on Midas FEA NX and Rocscience RS2 and its applications in the area of hydropower, Tunneling and Slope engineering organized by Consultant Studio Pietrangeli. at Druk Green Power Corporation, Bhutan from 17th December 2023 to 21st December 2023.
4	Online training session on Dam and Network Safety assurance on September 10, 2020.
5	Internship Programme at the Semmering Base Tunnel (Austrian Federal Railways, OBB), Austria from October 1 <sup>st</sup> to October 30 <sup>th</sup> 2019.
6	1 <sup>st</sup> Indian Near Surface Geophysics Conference & Exhibition (International Conference) organized by AF Academy & EAGE from November 28-29, 2019, held at New Delhi, India.
7	Bathymetric Survey training for reservoirs for sedimentation studies at Chukha Hydropower Plant, Bhutan from 5 <sup>th</sup> to 9 <sup>th</sup> June 2018.
8	The ITA training course on "Control and Monitoring of Construction of Tunnels and Underground Space" in Thimphu, Bhutan form November 27-28, 2017.
9	Capacity Development Training (CDTA) by consultant experts for monitoring safety of Hydropower Plants from year 2017 to 2022.
10	Workshop on Segmental Lining-Issues and Challenges, Tunneling Association of India & Central Board of Irrigation & Power, 26 <sup>th</sup> February, 2014.
11	Workshop on Sprayed Concrete in Underground Structures-Issues and Challenges, Tunneling Association of India & Central Board of Irrigation & Power, 27-28 <sup>th</sup> February, 2014.
12	Professional Development Programme on Quality Assurance and Quality Control in Civil Engineering Construction Projects, 21-24 November 2011, Hyderabad India.

# 8. Membership details of research experience/publications/special achievement (if applicable) Special Achievements/Membership details:

- Austrian Government Funded Scholarship to pursue "NATM Masters of Engineering" at Graz University of Technology, Austria.
- Appreciation for the work "Inspection & Rectification of 23 KM long Head Race Tunnel" at Tala Hydropower Plant from 2<sup>nd</sup> January to 17<sup>th</sup> February, 2022.
- Published the paper on "Importance of Geotechnical Instrumentation & Monitoring: A Case Study From PHEP-II Underground Caverns" held from 21-22 December, 2019 at Kurichhu, Gyalpoizhinhg.
- Published the paper on "Importance of Microseisemic Monitoring on Stability Analysis of the Powerhouse Cavern of THP" held from 21-22 December, 2019 at Kurichhu, Gyalpoizhinhg.

#### **Certification:**

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes me, my qualifications and my experience.

1. Position Proposed: Electrical Engineer

2. Current Position: Assistant Electrical Engineer, Druk Green Consultancy (DGC)

3. Current Organization: Druk Green Power Corporation Limited (DGPC)

4. Country: Bhutan

## 5. Academic/Education:

Degree	Name of Institute	Year	Funding	
_	College of Science and Technology, Phuentsholing, Bhutan	2019-2023	Royal Government of Bhutan	

## Languages:

Language	Speaking			Reading			Writing		
	Good	Fair	Poor	Good	Fair	Poor	Good	Fair	Poor
English	V			$\sqrt{}$			<b>V</b>		
Dzongkha	V			<b>√</b>			<b>V</b>		
Hindi		V							
Nepali		V							

Period	Employing organization and title/position	Responsibilities/Summary of activities undertaken
August 2023 - Present	Druk Green Power Corporation Ltd. (DGPC)/Assistant Engineer (Electrical), Druk Green Consultancy (DGC)	<ul> <li>undertaken</li> <li>Preparation of E&amp;M Equipment chapter including basic design for FSR of Gamri I HPP.</li> <li>Update of Power Evacuation and Transmission Line Arrangement for Gamri I HPP.</li> <li>Preparation of Technical Specification for Tendering of Druk Bindu I &amp; II HPP Gamri I HPP.</li> <li>Preparation of Technical Datasheet for Tendering of Gamri I HPP.</li> <li>DPR update of E&amp;M cost estimate and construction</li> </ul>
		power requirement for Dorjilung HPP.

Training on Solar Photovoltaic (PV) Systems conducted by Global Sustainable Energy Solutions India Pvt. Ltd. at New Delhi from 11<sup>th</sup> to 18<sup>th</sup> February, 2024.

#### **Certification:**

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes me, my qualifications and my experience.



1. Proposed Position: Mechanical Engineer

2. Current Position: Executive Engineer, Druk Green Consultancy (DGC)

3. Current Organization: Druk Green Power Corporation Limited (DGPC)

4. Country: Bhutan

## 5. Academic/Education:

Degree	Name of Institute	Year	Funding
Masters of Engineering (Mechanical)	Edith Cowan University, Australia	2017-2018	Australia Awards
Bachelor Degree in Mechanical Engineering	National Institute of Technology, Raipur, Chhatisgarh, INDIA	2006 -2010	Government of India

#### Languages:

Language		Speaking		Reading			Writing		
	Good	Fair	Poor	Good	Fair	Poor	Good	Fair	Poor
English	$\sqrt{}$						V		
Dzongkha	<b>V</b>			V				V	
Hindi	<b>√</b>								
Nepali		V							

## 6. Employment Record/Work Experience:

Period	Employing organization and title/position.	Responsibilities/Summary of activities undertaken		
August 2015 - Present	Druk Green Power Corporation Ltd. (DGPC)/Executive Engineer, Druk Green Consultancy (DGC)	<ul> <li>Planning, design, drawings and preparation of cost estimate and report for Hydro-Mechanical equipment of 90MW Jomori Hydropower Project. (2023)</li> <li>Prepared tender design, drawings, technical specification and contract documents following the silver book of FIDIC-1999 for Burgangchhu (54 MW), Yungichhu (32 MW) and Suchhu (18 MW) hydropower Projects and tender evaluation. (2022-2023)</li> <li>Planning, design, drawings and preparation of cost estimate and report for Hydro-Mechanical equipment of Churachhu Diversion Scheme. (2023)</li> </ul>		

- Update DPR of Nyera Amari I & II integrated hydropower Project (404 MW) and Druk Bindu I&II Hydropower Project (2022)
- Reviewed the design and report of Hydro-Mechanical equipment for the barrage option of Punatsangchhu-I hydropower project (1,200 MW) prepared by M/s Stucky, Switzerland. (2022)
- Technical working team member for conditional assessment of Embedded Generations. (2022)
- Preparation of bidding document and technical specifications of Hydro-Mechanical Works (Package 4) for construction of 54 MW Burgangchhu Hydropower Project, 32 MW Yungichhu Hydropower Project and 18 MW Suchhu Hydropower Project and bid evaluation. (2022-2023)
- Feasibility Study Report (FSR) of 54 MW
  Burgangchhu Hydropower Project, 32 MW Yungichhu
  Hydropower Project and 18 MW Suchhu Hydropower
  Project. The task performed includes: Planning, design,
  engineering and preparation of drawings, cost estimate,
  design memos and report including work schedule of
  Hydro-Mechanical work. (2021)
- Planning, design, engineering, drawings and preparation of cost estimate and report of Hydro-Mechanical Equipment for the Pre-feasibility study of 22 MW Burichhu Hydropower Project. (2021)
- Feasibility Study of Ropeway from Rinchentse to Tala Hydropower Plant (THP) Power House at Tabji. (2021)
- Planning, design, engineering, drawings and preparation of cost estimate and report of Hydro-Mechanical Equipment for the preparation of Detailed Project Report (DPR) of 500 kW Lunana Mini Hydropower Project. (2020)
- Design of steel lining for the work repair of Kurichhu Hydropower Plant (KHP) stilling basin and spillway glacis. (2019)
- Quality Assurance Committee member for the work Modification of Hoisting Mechanism of Spillway Radial Gates of CHP Dam. The work included preparation of quality assurance plan (QAP), inspect work site, witness site tests, and ensuring works are carried out as per QAP and in compliance with Occupational Health & Safety Manuals. (2019)

	•	Planning, design, engineering, drawings and preparation of cost estimate and report of Hydro-Mechanical Equipment for the preparation of DPR of 18 MW Druk Bindu Small Hydropower Project. (2016) Review of design, engineering, drawings and report of Hydro-Mechanical Equipment for DPR of 1125 MW Dorjilung Hydropower Project prepared by M/s SMEC India. (2016)  DPR preparation of Kurichhu Hydropower Plant Augmentation Project. A feasibility study was carried out to find techno-economic viability to augment the generation of KHP. (2016)
Tala Hydropower Plant, DGPC/Assistant Engineer	•	Planning, scheduling and executing annual maintenance of Tala Hydropower Plant. The work includes overhauling, inspection, servicing of turbine components such as nozzle injector assemblies, Governing system including Hydro Mechanical, Needle Control and Fluid Power System for Governing and Main Inlet Valve System, Brake and Jack hydropneumatic system, all bearings including shell and pivot type bearing and centralized lubrication system. (2010-2015)  Led the team for special maintenance work of alignment, levelling and centering of generating units of Tala Hydropower Plant. (2011)  Carried out special maintenance of Main Inlet Valve seals, Pressure Shaft steel liner inspection and repair, and 4000m Butterfly Valve for Tala Hydropower Plant during annual maintenance. (2012)  Material and manpower planning, inventory management including updating inventory level (EOQ level) in SAP system, raise Plant Maintenance Order and Purchase requisition through SAP system.  Purchase of all Electro-mechanical services and emergent purchases of the plant.  Resolve contractual issues including preparation of tender documents, bid evaluation and updating of works in SAP system.  Committee member for purchase of Spare runners for Tala Hydropower Plant.

1	Attended and successfully completed Training Program on Competency Based Interviewing Skills
	conducted by Impact Plus Consultancy, Thimphu from November 27 to 28, 2023.
2	Attended and successfully completed Training Program on Flow 3-D conducted by Flow Science, India
	from October 25 to 27, 2023.
3	Attended workshop on Turbine Model Testing, Cavitation, Silt and Abrasive Erosion Measurement
	from January 09, 2023 to January 11, 2023 organized by IIT Roorkee, India.
4	Attended awareness on Ethics, Integrity and Professionalism on September 7, 2023 conducted by Anti-
	Corruption Commission of Bhutan in Thimphu, Bhutan.
5	Went on a study tour to 24MW Sirmour Small Hydropower Project and visited manufacturing plant of
	M/s Flovel Energy Pvt. Ltd. in India from August 15, 2022 to August 20, 2022.
6	Attended 17th Annual Conference on Hydropower organized by Indian Infra in New Delhi, India from
	January 16 to January 17, 2020
7	Attended workshop on 1st National Consultative Workshop on Establishment of Local Chapter for
	Women in Power Sector Professional Network in South Asia (WePOWER) organized by Asian
	Development Bank in Phuentsholing, Bhutan in January 2020
8	Attended seminar on Ultra Sonic Clamp-on Flow Meters for Penstock Pipes provided by Hydro Vision,
	India/Germany at THP, Bhutan in February 2019.
9	Attended training on Primavera P6 software conducted by Athang Training Institute in Thimphu,
	Bhutan from June 24, 2019 to June 28, 2019.
10	Attended training on Hydraulic Gates-Planning, Design and Operation organized by Engineering Staff
	College of India, Hyderabad, India in September 2015.
11	Attended workshop on Indian Power Market organized by Power Trading Companies of India in
	Thimphu, Bhutan on June 5, 2014.
12	Attended training on Procurement Management organized by Indian Institute of Management Trainings,
	Pune, India from October 8, 2012 to October 16, 2012
13	Attended training on 7 Habits of Highly Effective People signature programme provided by Franklin
	Covey in Bhutan from June 21 to June 23, 2012
14	Attended training on Service Procurement at Thimphu, Bhutan from May 2, 2012 to May 23, 2012.
15	Attended training on Inventory and Procurement Management organized by Institute of Management
	Studies, Thimphu from May 7, 2012 to May 18, 2012.
16	Attended training on Programme Management organized by Royal Institute of Management, Thimphu
	as a part of Chiphen Rigphel Project from February 27, 2012 to March 4, 2012.
17	Attended training on Alignment & Levelling of Generator and Turbine of Hydropower Plant organized
	by Bharat Heavy Electricals Limited, Bhopal, India from October 10, 2011 to October 15, 2011.

#### 8. Publications/special achievement (if applicable):

- Authored paper "Design analysis of radial gate of Dorjilung Hydropower Project using Finite Element Method" and published during the 3rd DGPC technical conference 2019.
- Australia Awards Scholarship to pursue Master in Mechanical Engineering- 2017
- Awarded Golden Key International Honour Society Certificate for achieving excellence in academic-2018

## **Certification:**

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes me, my qualifications and my experience.

1. Current Position: Assistant Civil Engineer, Druk Green Consultancy (DGC)

2. **Proposed Position:** CAD Engineer

3. Current Organization: Druk Green Power Corporation Limited (DGPC)

4. Country: Bhutan

#### 5. Academic/Education:

Degree	Name of Institute	Year	Funding
Bachelor of Technology in Civil Engineering	National Institute of Technology, Haryana, India	2016 -2020	Indian Council for Cultural Relations, Government of India

## 6. Languages:

Language		Speaking	,	Reading		Writing			
	Good	Fair	Poor	Good	Fair	Poor	Good	Fair	Poor
English	<b>V</b>			V			V		
Dzongkha	<b>√</b>			V			<b>V</b>		
Hindi		V							
Nepali									

Period	Employing organization and title/position.	Work Experience		
November 2021 - Present	Druk Green Power CorporationLtd. (DGPC), Druk Green Consultancy (DGC) Assistant Engineer (Civil)	<ul> <li>Design of retaining walls such as reinforced concrete wall, masonry wall, gabion wall, etc. for the construction of project roads of small hydropower projects (Suchhu HPP, Burgangchhu HPP &amp; Yungichhu HPP) including preparation of construction drawings.</li> <li>Carried out planning and drawing of the prefabrication temporary building for 32 megawatts Yungichhu hydropower project.</li> <li>Preparation of detailed construction drawings of the concrete structure outline drawing, structural and excavation drawings of different components such as Headworks, Tunnel portal, Desilter, Surge Tube and Tail Race Channel of the small hydropower projects.</li> <li>Design and preparation of construction drawings of flood/river protection walls of headwork components and powerhouse complex of small hydropower projects.</li> </ul>		

	<ul> <li>Preparation of drawings of steel lining of trench weir and under sluice structure of the small hydropower projects.</li> <li>Carried out the construction level design and drawing of project road of three small</li> </ul>
	<ul> <li>hydropower projects.</li> <li>Preparation of drawing of powerhouse building including Steel frame structure of Suchhu and Yungichhu hydropower projects.</li> <li>Carried out the infrastructure and construction facilities planning for the Churachhu diversion scheme, Dagana, Bhutan, which includes planning of project road alignment, contractor facilities, muck disposal yard, workshop and fabrication yard, explosive yard, batching plant and other auxiliary project facilities.</li> </ul>

1	Indoor familiarization training on AutoCAD provided by Mr. Sudip Gautam (CAD expert)					
2	Hydropower Project Development Training organized by International Centre for Hydropower in collaboration with Druk Green Power Corporation at Thimpu Deluxe Hotel, Thimpu, Bhutan from 28 November – 01 December 2022					
Training on Flow-3D Hydro organized by Flow Science, India (Mr. @Pankaj Lawande a from October 25-27,2023.						
4	Training on MIDAS FEA NX software (December 25-27, 2023) provided by Mr. Harsha Tadavarti, Sr. Geotechnical Engineer from MIDAS Research and Development Centre Pvt. Ltd., India.					
5	E-learning course on Ethics and Integrity organized by Anti- Corruption Commission in collaboration with Druk Holding and Investments.					
6	Attended session on Geological baseline Report delivered by Mr. Dean R. Brox, Geology Expert (EDSPRP) on 29th September 2023.					
7	Attended Workshop on Dam safety and earthquakes on 9 <sup>th</sup> October delivered by Dr. Martin Wieland, Chairman Committee on Seismic Aspects of Dam Design (ICOLD: International Commission on Large Dams) in Thimphu,Bhutan					
8	TY 1 O WY 1 1 O O O I D O O O O O O O O O O O O O O O					

## 9. Certification:

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes me, my qualifications and my experience.



1. **Proposed Position:** CAD Engineer 2

2. Current Position: Assistant Civil Engineer, Druk Green Consultancy (DGC)

3. Current Organization: Druk Green Power Corporation Limited (DGPC)

4. Country: Bhutan

## 5. Academic/Education:

Degree		Name of Institute	Year	Funding
	Bachelor Degree in Civil Engineering	College of Science and Technology, Phuentsholing, Bhutan	2019-2023	Government of Bhutan

## Languages:

Language	Speaking			Reading			Writing		
	Good	Fair	Poor	Good	Fair	Poor	Good	Fair	Poor
English	V			V			V		
Dzongkha	<b>√</b>			V				<b>V</b>	
Hindi		<b>V</b>							
Nepali		$\sqrt{}$							

Period	Employing organization and title/position.	Responsibilities/Summary of activities undertaken						
August 2023 - Present	Druk Green Power Corporation Ltd. (DGPC)/Assistant Engineer (Civil), Druk Green Consultancy (DGC)	<ul> <li>Prepared Phase II Bill of Quantities.</li> <li>Involved in the preparation of Phase II Technical Specification.</li> <li>Indulged in the preparation of Phase II (Jomori HPP) Tender drawings for i) General Layout, ii) Diversion Tunnel, iii) SFT, iv) HRT, v) Adits &amp; Plugs, and vi) Pressure Shaft</li> <li>Engaged in the preparation of Construction drawing of Penstock Anchor Blocks and HRP Thrust blocks for Phase I projects.</li> <li>Involved in the DPR update of cost estimate for Dorjilung HPP (currently completed with the updates of Hourly equipment rate and Rate analysis with ongoing update of cost abstract).</li> </ul>						

1	Training on Flow-3D Hydro organized by Flow Science, India (Mr. @Pankaj Lawande and Mr. Anurag) from October 25-27,2023.
2	Training on MIDAS FEA NX software (December 25-27, 2023) provided by Mr. Harsha Tadavarti, Sr. Geotechnical Engineer from MIDAS Research and Development Centre Pvt. Ltd., India.

## **Certification:**

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes me, my qualifications and my experience.

March 05, 2024

1. Current Position: Assistant Civil Engineer

2. Current Organization: Druk Green Power Corporation Limited (DGPC)

3. Country: Bhutan

## 4. Academic/Education:

Degree		Name of Institute	Year	Funding		
Bachelor Civil Engir	Degree in neering	College of Science and Technology	2018 -2022	Government of	Bhutan	

## Languages:

Language	Speaking		Reading			Writing			
	Good	Fair	Poor	Good	Fair	Poor	Good	Fair	Poor
English	<b>V</b>						V		
Dzongkha	<b>√</b>			<b>√</b>			V		
Hindi		<b>√</b>							
Nepali		1							

Period	Employing organization and title/position.	Work Experience
May 2023 - Present	Druk Green Power Corporation Ltd. (DGPC), Druk Green Consultancy (DGC) Assistant Engineer (Civil)	<ul> <li>Preparation of construction drawings of the concrete structure outline drawing, structural and excavation of Headworks components of Burgangchhu HPP.</li> <li>Plan and preparation of construction drawings of flood/river protection walls of head works area and Powerhouse complex of Suchhu HPP.</li> <li>Preparation of drawing of powerhouse building including Steel frame structure of Yungichhu hydropower projects.</li> <li>Drawing preparation of underground structure components of small Hydropower project like excavation plan, plugging details and rock support details of tunnel.</li> </ul>

- Training on Flow-3D Hydro organized by Flow Science, India (Mr. @Pankaj Lawande and Mr. Anurag) from October 25-27,2023.

  Hands-On workshop on Structural Design and Detailing of RCC Building as per IS Code using Midas Gen organized by MIDAS Research and Development Centre India Pvt. Ltd. in collaboration with Institute for Engineering Training, Bhutan from 17-18 November 2023.
- Training on MIDAS FEA NX software (December 25-27, 2023) provided by Mr. Harsha Tadavarti, Sr. Geotechnical Engineer from MIDAS Research and Development Centre Pvt. Ltd., India.

#### **Certification:**

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes me, my qualifications and my experience.

1. Proposed Position: CAD Engineer

2. Current Position: Assistant Civil Engineer, Druk Green Consultancy (DGC)

3. Current Organization: Druk Green Power Corporation Limited (DGPC)

4. Country: Bhutan

#### 5. Academic/Education:

Degree	Name of Institute	Year	Funding
Bachelor of Technology in Civil Engineering	College of Science and Technology, Phuntsholing, Bhutan	2016 -2020	Royal University of Bhutan (RUB)

#### 6. Languages:

Language	Speaking		Reading			Writing			
	Good	Fair	Poor	Good	Fair	Poor	Good	Fair	Poor
English	<b>√</b>			V			V		
Dzongkha	<b>√</b>			V			V		
Hindi									
Nepali		<b>√</b>							

Period	Employing organization and title/position.	Work Experience
November 2021 - Present	Druk Green Power CorporationLtd. (DGPC), Druk Green Consultancy (DGC) Assistant Engineer (Civil)	<ul> <li>Preparation of detailed construction drawings of the concrete structure outline drawing, structural and excavation drawings of different components such as Headworks, Tunnel portal, Desilter, Surge Tube and Tail Race Channel of Phase I Hydro power projects.</li> <li>Design and preparation of construction drawings of flood/river protection walls of headwork components and powerhouse complex of small hydropower projects.</li> <li>Revision and preparation of tender drawings of phase II projects, Gamri I and Jomori Hydro power Project.</li> <li>Construction management and scheduling for Churachhu Diversion Scheme in Dagana at DPR level.</li> <li>Preparation of architectural drawings, structural drawings, cost estimates of P-II Adit portals</li> </ul>

1	Inhouse familiarization training on AutoCAD provided by Mr. Sudip Gautam (CAD expert)
2	Inhouse Training on Flow-3D Hydro organized by Flow Science, India (Mr. @Pankaj Lawande and Mr. Anurag) from October 25-27,2023.
3	Inhouse Training on MIDAS FEA NX software (December 25-27, 2023) provided by Mr. Harsha Tadavarti, Sr. Geotechnical Engineer from MIDAS Research and Development Centre Pvt. Ltd., India.
4	Attended Workshop on Dam safety and earthquakes on 9 <sup>th</sup> October delivered by Dr. Martin Wieland, Chairman Committee on Seismic Aspects of Dam Design (ICOLD: International Commission on Large Dams) in Thimphu,Bhutan

#### **Certification:**

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes me, my qualifications, and my experience.

