



IERC

2021



Infrastructure Engineering Research & Consult



www.ierc.com.np



01-5103011



consult@ierc.com.np

GENERAL INFORMATION:

Name of the firm: **Infrastructure Engineering Research & Consult Pvt. Ltd.
(IERC)**

Type of the firm: Private Limited

Registration Number: Pvt. Ltd. 30224

Year of establishment: 2061 B.S(2004AD)

Capital: 2.5 million NPR

Office Address: Raniban, Nagarjun-1, Kathmandu

Contact:

Tel. : 977-1-5103011

Email :consult@ierc.com.np

Website :www.ierc.com.np

Years of experience: 17 years

Field of work:

- ✓ Seismic Hazard Assessment and Risk Analysis
- ✓ Disaster Risk Management and Mitigation
- ✓ Development Policy Research
- ✓ Concept and Design of Civil Infrastructures
- ✓ Design of Earthquake Resistant Structures
- ✓ Seismic Performance Analysis and Retrofitting Design of Structures
- ✓ Heritage Preservation Works
- ✓ Urban and Regional Planning
- ✓ Study and Design of Hydropower Projects

BACK GROUND

The **Infrastructure Engineering Research and Consult (IERC) Pvt. Ltd.** is a Research and Consultant in the field of civil engineering. It was founded on August, 2004 AD. Its members have long and wide range of experiences of planning, designing and management skills in the field of structural, earthquake and water resources engineering.

IERC delivers services in all dimensions of civil engineering such as surveying, valuation, feasibility and detailed study, planning, designing, supervision, monitoring, preparation of bill of quantities and tender documents of various areas of roads, water supply and sanitary systems, irrigation systems, hydropower, bridges, electrical and communication systems, industries etc. of rural and urban infrastructures and development. It also focus on hazard, damage, vulnerability and loss estimation of built environment and strengthening/retrofitting of existing structures. Structural health monitoring using various non-destructive techniques are also a key area of the **IERC**.

IERC do research in the areas of engineering aspect of earthquake motions in the Himalayas, seismic resistant low cost technology, updating seismic hazard, loss estimation in future earthquakes effect noise and vibration due to vehicular movement.

BOARD MEMBERS

S.N.	Name	Position	Qualification
1	ShyamThapa	Chairman	M. Sc. in Structural Engineering

Name of Authorized Contact Person: **Er. Surendra Katwal**

Designation: **Chief Executive officer**
Address: **Kathmandu-16, Banasthali**
Telephone: **9840062852**

A. Mr. Shyam. Thapa

Area of expertise: Structural Engineering
Years of Experience: 21 years
Current job: Project Engineer (Full Time Contract)
London Borough of Haringey, London, N22 8HQ
Structural Design Engineer (Part Time)
Exi-Tech Design & Construction Ltd.
66 Leggatt Road, Stratford, London, E15 2RQ

Contact:

Res. Address: Sanothimi, Bhaktapur
Phone: 01-6634727 (Res.)
Email: smthapa@yahoo.com

Current Address: 8 Revell Rise, Plumstead Common, London, SE18 2NY
Contact No: +44-7830655044

Shyam Thapa is a Civil & Structural Engineer with particular expertise in Structural Design & Maintenance of Buildings (Residential, Commercial, and Tall Buildings) & Bridges (Footbridge, Motorway Bridge & Railway Bridge), Analysis and Design of Hydraulic Structures (Weir, Settling Basin, Piers, Thrust Blocks, and Powerhouse). He is currently working as a Project Engineer for Highways Maintenance (Design for carriageway resurfacing, reconstruction, footway reconstruction and reinstatement, vehicle crossings) and drainage work in a Council of London, UK. He has work experiences in Nepal, Qatar and UK. He has participated in many Civil, Structural and Highways Engineering trainings and seminars. He holds B.E. (Civil Engineering) and M. Sc. in Structural Engineering Degrees from Tribhuvan University in Nepal. He is also a member of the Institution of Engineers in Nepal, and UK. He is also the Structural Engineer Member in Nepal & UK. Shyam Thapa has confirmed that he is ready to spare his more time when IERC will have the job related to his expertise.

FULL TIME STAFF

S.N	Name	Qualification	Position
1.	Mr. Surendra Katwal	M.Sc.	Chief Executive officer
2.	Mr. Kamal Raj Karki	M.Ed	Admin
3.	Mr. Deepak Raj Shakya	M E	Construction Management
4.	Ms. Sujata Kayastha	M.E	Structural Engineer
5.	Mr. Sunil Bhandari	B.E.	Civil Engineer
6.	Mrs. Nirkala Marahatta	B. Ed	Admin Officer
7.	Mr. Shyam Neupane	B.E.	Civil Engineer
8.	Mr. Santosh Dhital	B.E.	Civil Engineer
9.	Mr. Sandip Thapa	B.E.	Civil Engineer
10.	Mr. Sudeep Khadka	B.E.	Civil Engineer
11.	Mr. Gehendra Acharya	B.E.	Civil Engineer
12.	Mrs. Nirkala Marahatta	B. Ed	Admin Officer
13.	Mr. Shailendra Ghimire	BBS	Accountant
14.	Ms. Anami Bohara	B.Arch.	Architect
15.	Ms. Shrijana Khadgi	B.Arch.	Architect
16.	Mr. Bijay Rana Bhat	B.E	Civil Engineer
17.	Mr. Sudarshan Dhakal	B.E.	Civil Engineer
18.	Mr. Bikesh Bayaju	BBA	Accountant
19.	Mr. Suchan Pokharel	I.E.	Sub Engineer
20.	Ms Ramila Subedi	SLC	Office Helper
21.	Binod Magar	SLC	Driver

Resource Persons

S.N	Name	Qualification	Expertise
1.	Dr. Surendra Tamrakar	PhD. Eng.	Geotechnical Engineering
2.	Dr. Krishna Bhetuwal	PhD. Eng.	Structural Engineering

3.	Dr. Deepak Raj Bhatt	PhD. Eng.	Geotechnical Engineering
4.	Er. Laxman Aryal	M. Sc.	Hydraulic Engineering
5.	Er. Pramod Neupane	M. E.	Structural Engineering
6.	Er. Chet Raj Joshi	M.Sc.	Geotechnical Engineering
7.	Er. Rewant Rawat	M.Sc.	Geotechnical Engineering
8.	Er. Rabindra Dawadi	M. Sc.	Urban Planning
9.	Puspa Raj Bhatta	B. Arch	Architecture
10.	Ashish Samsher Rana	B. Arch	Architecture/Urban Planning
11.	Sunita Ghimire	M.Sc.	Earthquake Engineer
12.	Uday Raj Neupane	M. Sc.	Geotechnical Engineer
13.	Bishnu Raj Karki	M.A.	Archaeologist
14.	Rajiv Yadav	B.E	Electrical Engineer
15.	Bikash Adhikari	PhD. Eng	Environmentalist
16.	Chan Bahadur Gurung	PhD.	Sociology
17.	Purna Bahadur Lamichhane	M. Ed	Educationalist
18.	Shakuntala Marahatta	M.A	Economics
19.	Krishna Hari Dhakal	PhD.	Agriculture
20.	Laxman Aryal	M E	Water Resource Management
21.	Bishnu Raj Karki	M.A.	Archaeology

22.	Kheshari Pradsad Bhatta	M.A	Sociology
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WORK EXPERIENCE

Building and Heritage

Since the establishment of the firm it has completed several jobs on heritage and low strength masonry structures. Especially focused on the preservation work plan, analysis and retrofitting design with Department of Archeology.

S.N	Fiscal Year	Description of projects	Employer
1.	2063/64	Documentation of stone spouts of Lalitpur and Bhaktapur	Department of Archeology
2.	2063/64	Detailing of 7 V.D.C s of Kathmandu Valley	Department of Archeology
3.	2063/64	Documentation of ancient statues of Thankot Balambu, Kishipindi and Matatirtha	Department of Archeology
4.	2063/64	Preparation of field study report of Dibyeshwori Temple, Kaushaltar	Department of Archeology
5.	2063/64	Documentation and report writing about Kankre Bihar, Surkhet	Department of Archeology
6.	2063/64	Preparation of masterplan of Prathampur Mahabihar located at Bungmati	Department of Archeology
7.	2063/64	Preparation of master plan of Patikuti area near upper palace of Gorkha	Department of Archeology
8.	2064/65	Detail reporting and structural detailing of Narsang Monastery located at Kobang V.D.C of Mustang District	Department of Archeology

9.	2064/65	Preparation of field study report of Pancha Dewal located at Kalikot	Department of Archeology
10.	2064/65	Preparation of field study report of Jwala Temple Shree Sthan located at Dailekh	Department of Archeology
11.	2064/65	Preparation of field study report about landslide near Manakamana Temple	Department of Archeology
12.	2064/65	Preparation of field study report of Tanahun	Department of Archeology
13.	2064/65	Preparation of field study report of Bhim Bireshwor Temple, Gorkha	Department of Archeology
14.	2064/65	Preparation of field study report including sectional plan and elevation about Jaladroni in Patan	Department of Archeology
15.	2065/66	Preparation of field study report about management of Gorkha Museum	Department of Archeology
16.	2065/66	Preparation of field study report about Pancha Dewal of Binayak, Achham	Department of Archeology
17.	2065/66	Preparation of working details of Bhurti Dewal at Dolakha District	Department of Archeology
18.	2065/66	Preparation of working details of lower Dhungeshwor Temple at Dolakha District	Department of Archeology
19.	2065/66	Drawing and designing of Praster system temple at Sundhara, Patan	Department of Archeology
20.	2065/66	Preparation of detail drawing of Bhimbireshwor Temple at Namjung, Gorkha	Department of Archeology
21.	2065/66	Preparation of detail field study report of Uma Maheshwor Temple, Patan	Department of Archeology

22.	2065/66	Preparation of field study report about Layout Plan of meeting hall inside Hanuman Dhoka Museum	Department of Archeology
23.	2065/66	Preparation of survey report and division list of cultural heritage sites of 20 districts of Nepal under cultural heritage protection and division plan	Department of Archeology
24.	2066/67	Preparation of detail field study report of of cultural heritages located at Ajaymerukot, Dadeldhura	Department of Archeology
25.	2066/67	Preparation of field study report of <i>Ukuka Bhagnabasesh</i> at Darchula	Department of Archeology
26.	2066/67	preparation of field study report of Makawanpur Gadhi	Department of Archeology
27.	2066/67	Preparation of detai field study report of <i>Pancha Dewal</i> located at Mehalmudi, Kalikot	Department of Archeology
28.	2066/67	Preparation of survey report and division list of cultural heritage sites of 34 districts of Nepal under cultural heritage protection and division plan.	Department of Archeology
29.	2066/67	Preparation of detail drawing of newly constructed national museum building	Department of Archeology
30.	067/068	Preparation of preservation plan of Bhimsen temple at Mangalbazar	Department of Archaeology
31.	067/068	Preparation of detailed study report on renovation of Shantipur at Swayambhu	Department of Archaeology
32.	067/068	Engineering design of extended building Of National Museum	Hanuman Dhoka Durbar Museum Development Committee

33.	067/068	Preparation of detailed drawing of North elevation of Hanuman Dhoka.	Hanuman Dhoka Durbar Museum Development Committee
34.	067/068	Preparation of detailed elevation drawings of extended building of National Museum	Department of Archaeology
35.	067/068	Preparation of drawings of Silkhana building at National Museum	Department of Archaeology
36.	067/068	Preparation of Master Plan of Nepal National Ethno Museum	Nepal National Ethnographic Museum
37.	067/068	Preparation of list of idols and statues at inner chowk of Hanuman Dhoka	Hanuman Dhoka Durbar Museum Development Committee
38.	067/068	Preparation of study report of Bauddha art gallery for re exhibition	Department of Archaeology
39.	067/068	Preparation of list of weapons	Department of Archaeology
40.	067/068	Preparation of master plan of Bhimsen temple	Department of Archaeology
41.	067/068	Preparation of study report of Belkot at Nuwakot	Department of Archaeology
42.	067/068	Preparation of study report of Panchadewal at Godawari	Department of Archaeology
43.	067/068	Preparation of study report of Bhairab temple at Palpa	Department of Archaeology

44.	067/068	Listing of heritages at Lalitpur	Department of Archaeology
45.	067/068	Preparation of study report of Belkot	Department of Archaeology
46.	067/068	Preparation of study report of Dhungeswor temple at Dailekh	Department of Archaeology
47.	067/068	Preparation of study report on dewals at Bhurti	Department of Archaeology
48.	067/068	Preparation of study report of PalpaBhairab temple	Department of Archaeology
49.	068/069	Detail Drawing of Kampukot	Hanuman Dhoka Durbar Museum Development Committee
50.	068/069	Drawing design and estimate of shopping stall study	Hanuman Dhoka Durbar Museum Development Committee
51.	068/069	Preparation of detailed drawing of East elevation of Hanuman Dhoka	Hanuman Dhoka Durbar Museum Development Committee
52.	068/069	Study on renovation of Sisabaithak block	Hanuman Dhoka Durbar Museum Development Committee
53.	068/069	Study of PangnamiPhulbari Magi gumba	Department of Archaeology
54.	068/069	Preparation of drawings of temples at Jagannath and Dewalpur	Department of Archaeology

55.	068/069	Study on archaeological locations at Kapilwastu	Department of Archaeology
56.	068/069	Geotechnical study at Muktinath temple premise	Department of Archaeology
57.	069/070	Study on Terracotta shikhar style temple inside Patan Durbar Square	Department of Archaeology
58.	069/070	Preparation of study report on wreckages at Uku, Dailekh	Department of Archaeology
59.	069/070	Management of Nuwakot durbar gallery	Department of Archaeology
60.	070/071	Re-evaluation of categories of traditional houses built at two protected monument zone and preparation of inventory of houses those not compliance with rules and regulation	Department of Archaeology
61.	070/071	Study on strengthening planning of Gorkha museum at Gorkha district	Department of Archaeology
62.	070/071	Preparation of detailed drawings of Janaki Temple	Department of Archaeology
63.	070/071	Preparation of report with design and drawings of Garadghar at Nuwakot durbar palace	Department of Archaeology
64.	070/071	Preparation of field study report of five locations Panauti, Kirtipur, Gorkha, Sankhu and Khokana listed at tentative list	Department of Archaeology
65.	070/071	Preparation of list of ancient monuments and archaeological things at two protected monument zones listed in world heritage list at Patan durbar square and Changunarayan	Department of Archaeology
66.	070/071	Preparation of masterplan of Halesimahadev temple	Department of Archaeology
67.	071/72	Preparation of inventory of buildings, built against rules and regulation	Department of Archaeology

68.	071/072	Detailed report on design and drawing of Tripureswor temple preservation	Department of Archaeology
69.	071/072	Preparation of list of damaged monuments with photos due to earthquake on Baisakh 12, 13 and 29, 2072 B.S. at Dolakha, Sindhupalchok and Kavrepalanchok	Department of Archaeology
70.	072/073	Load test of timber frames to use in renovation and preservation of heritage structures.	Department of Archaeology
71.	072/073	Study on revising of boundary of Gorkha durbar memorial area	Department of Archaeology
72.	073/074	Revision on drawings and estimate of Garadghar, seven storied palace and Taleju temple at Nuwakot and Gorkha palace at Gorkha	Department of Archaeology
73.	074/075	Structural design and drawing of commercial cum residential building with total area of 12,138 sft at Baneshwor	De-Fort Nepal
74.	074/075	Structural design and drawing of commercial cum residential building with total area of 8,169 sft at Lalitpur	De-Fort Nepal
75.	074/075	Structural design and drawing of residential building with total area of 3,720 sft at Lalitpur	De-Fort Nepal
76.	074/075	Structural Assessment of DoLIDAR Building at Lalitpur	CLPIU Jwagal Lalitpur
77.	074/075	Structural Assessment and Retrofit Design of School Buildings at Gorkha	CLPIU- Education Gyaneshwor, Kathmandu
78.	074/075	Preparation of Master plan of National War Museum at Rolpa	DCC, Rolpa
79.	074/075	Preparation of Detailed Design and Working drawings, Technical Specifications, Cost Estimates and Bidding Documents for Reconstruction of Temples, Monuments, and Buildings along the Heritage walk from Thapathali Bridge to Teku Bridge.	Bagmati River Basin Improvement Project - BRBIP
80.	075/076	Structural Condition Assessment and Strengthening/Retrofitting Design of West Lounge of Singhadurbar (Phase I Condition Assessment)	National Reconstruction Authority

81.	075/076	Structural Condition Assessment and Strengthening/Retrofitting Design of West Lounge of Singhadurbar (Phase II Retrofitting Design)	National Reconstruction Authority
82.	075/076	Detailed Damage assessment, soil investigation, Detailed Design and Working drawings, Cost Estimates and Preparation of Detailed Project Report of the Jangam Math of Taumadhi, Bhaktapur.	Department of Archaeology
83.	075/76	Preparation of master plan for landscaping, public and temples development with detailed design and estimate at Uttargaya Dham	Uttargaya Rural Municipality
84.	076/77	Detail Architectural Drawing, Structural Analysis and Detailed Cost Estimate (DPR) of Vishworup Temple, Sattals and small Temples (4nos) Inside Vishworup Courtyard Padhupati.	Pashupati Area Development Trust
85.	076/77	Preparation of Capacity Building Training Manual (Contract ID No.: EHRP/NRA/S/CQS-02/2076-77)/World Bank Funded (Credit: IDA Cr.No.AF-6164-NP).	Nepal Reconstruction Authority
86.	076/77	Preparation of DPR of District Treasury Controller office building at Manang	District Treasury Controller office, Manang
87.	076/77	Seismic Vulnerability analysis and retrofit design of Ghantaghar	Nepal Reconstruction Authority

Suspension Bridge

S.N	Fiscal Year	Description of projects	Employer
1.	073/074	<p>Detailed Engineering survey, Design and Estimation Trial Bridge under Package EP-33/073/74:</p> <ul style="list-style-type: none"> Jhurjhure Suspension Bridge, Makawanpur (311.80m long) Ratapani Sispended Bridge, Mugu (102.0m long). Saribang Suspension Bridge, Pyuthan (249.40m long). Sipakhpla Suspended Bridge, Sindhupalchowk (293.0m long) 	MoFALD, Suspension Bridge Division

2.	074/075	<p>Detailed Engineering survey, Design and Estimation Trial Bridge under Package EP-25/074/75</p> <ul style="list-style-type: none"> • Dhaule Suspended Bridge, mugu(152.00 m long) • Pagarsena Suspended Bridge, mugu(135.00 m long) • Tumling Suspended Bridge, Humla(135.00 m long) • Thulibheri Bridge Dolpa (56.00 m long) 	MoFALD,Suspension Bridge Division
3.	074/075	<p>Detailed Engineering survey, Design and Estimation Trial Bridge under Package EP-18/074/75</p> <ul style="list-style-type: none"> • Bandh Dabille Suspended Bridge, gulmi (171.0 m long) • Bhaise gaire Bridge,palpa (86.34m long) • Budhi kulo Suspension Bridge, gulmi (135.00 m long) • Rangdi khola Suspended Bridge, gulmi (357.00 m long) • Chakiya Babai Suspension Bridge, Rupandehi (206.20 m long) 	MoFALD,Suspension Bridge Division

Hydropower

S.N	Fiscal Year	Description of projects	Employer
1.	072/073	Detailed topographic survey and feasibility study of the Chepe A (7.0Mw) Hydropower Project, Gorkha/Lamjung	Champawati Hydropower Pvt. Ltd.
2.	072/073	Feasibility study of the ShyarkyuKhola (3.5 Mw) Hydropower Project, Manag	Champawati Hydropower Pvt. Ltd.
3.	073/074	Detailed topographic survey, feasibility study, Structural design and drawing of Hydrualic strcutures (dam, retaining structures, desilting basin), Pipeline and Power house and preparation of estimate and BOQ of Chepe A Hydropower Project (7.0 MW)	Champawati Hydropower Pvt. Ltd.

4.	076/77	Technical Assistant and Management Consultant of Chepe A (7.0Mw) Hydropower Project, Gorkha/Lamjung	Champawati Hydropower Pvt. Ltd.
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Training

S.N	Fiscal Year	Description of projects	Employer
1.	072/073	J-Rapid Research Plan	Thapathali Campus.
2.	077/078	Consulting Services for: Disaster Risk Management for Schools and Communities (DRSP/CLPIU (E)/DRM-01)	Central level Project Implementation Unit (Ed.).

Ongoing Projects

- IERC is recently engaging in the study and analysis of several low strength masonry structures with retrofitting design.
- Seismic structural design of different RC framed structures.
- Supervision of the project ***“Structural Condition Assessment and Strengthening/Retrofitting Design of West Lounge of Singhadurbar”***
- *Detail Design of Dilliraman Library*
- *Consulting Services for: Disaster Risk Management for Schools and Communities*

Research

- Updating the seismic hazard map of Nepal
- Ground motion simulations
- Research on buildings and materials
- Loss estimation in future earthquakes