

Faculty:

Civil Engineering

Name:

Jagat Kumar Shrestha, PhD

Lecturer



Existing Position:

Assistant Dean

E - Mail: jagatshrestha@ioe.edu.np

Phone Office:9851161350

Phone Home:4027654

Phone Extension:.....

Education

- PhD Degree PhD in Civil Engineering, 2013
- Master's Degree MSc (Structure), 1998, MBA, 1996, MA (Economics), 1999
- Bachelor's Degree BE (Civil), 1992
- Diploma/PCL/+2 Degree PCCE (Civil), 1986

Academic Awards

- Bidhya Bhusan Ka
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Research Areas

Rural Infrastructures Planning, Structural Engineering, Civil Engineering.

Research Interests

Rural Infrastructures, Structural Engineering, Civil Engineering.

Work Experiences*(only mention the academic experiences)*

- Institute of Engineering, Tribhuvan University
May 2015 – to Date
Assistant Dean
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- Institute of Engineering, Tribhuvan University
July 2007 – August 2010

Assistant Dean

- Institute of Engineering, Pulchowk Campus

June 2005 – June 2007

Deputy Head of Civil Engineering Department

- Institute of Engineering, Pulchowk Campus

November 1998 – to Date

Lecturer of Civil Engineering

- Subjects taught

- Computer Aided Design (MSc)
- Operations Research (MSc)
- Finite Element Method (MSc)
- Trail Suspension Bridges
- Structural Dynamics
- Design of Concrete Structures
- Computational Techniques
- Concrete Technology and Masonry Design
- Transportation Engineering

- Institute of Engineering, Continuing Education Division

Jan., 2002 – Jan. 2015

- Resource Person,

- Training to Practitioner Engineers on Trail Bridges.

October, 2008- February 2009

Training Coordinator/Resource Person, Training to Practitioner Engineers and Overseers, 3 batches on Trail Bridges including Training to Ethiopian, Honduras and Tibetan Engineers/Sociologist. Jointly organised by Continuing Education Division and Trail Bridge Sub Unit, HELVETAS

- Resource Person:

- Training to District Engineers and Overseers, 4 batches On Trail Bridges, Jointly organised by Research and Training Unit, Civil Engineering Department and Trail Bridge Sub Sector Project, HELVETAS

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Theses Supervised:

- ***Doctoral Theses Supervised***

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- ***Master Theses Supervised***

1. Development of design of single lane T-Beam Bridge, 2005
2. Effect of near field vertical acceleration on seismic response of long span cable stayed bridge,

2009

3. Bond strength of self-compacting concrete and normal concrete under cyclic temperature, 2009
4. Performance of pre-stressed concrete girder bridge under blasting, 2010
5. Effect of longitudinal girder spacing on bridge deck response, 2011
6. Effect of modification of deck properties on the response of a suspension bridge, 2014
7. Robustness of rural road networks, 2014
8. Implementation of topology optimization in evaluation of traditional structural elements, 2015
9. Covering based approach for rural road planning, 2015
10. Comparative study of seismic performance and vulnerability evaluation for an existing building before and after partial dismantling due to road widening, 2015
11. Operational Performance of Public transit in Kathmandu Valley, 2016
12. Seismic Analysis of Optimal Hanger Arrangement of Network Arch Bridge, 2016
13. Effect of Road Access in Domestic Economy of Nepal, 2016

List of Publications

- **Books**

- Introduction to Structural Finite Elements, October 2009
- Introduction to Structural Dynamics and Earthquake Engineering, 2016

- **International Journals**

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International Journals

1. A multi-objective analysis of a rural road network problem in the hilly regions of Nepal, Jagat K. Shrestha, Agostinho Benta, Rui B. Lopes, Nuno Lopes, Transportation Research Part A 64 (2014) 43–53
2. Multi-objective analysis of cost and social benefits in rural road networks J.K. Shrestha, A. Benta, R.B. Lopes, and N. Lopes, International Journal of Civil, Environmental, Structural, Construction, and Architectural Engineering Vol:7 No:7, 2013
3. A methodology for definition of road networks in rural areas of Nepal J.K. Shrestha, A. Benta, R.B. Lopes, and N. Lopes, International Journal of Civil, Environmental, Structural, Construction, and Architectural Engineering Vol:7 No:6, 2013

- **National Journals:**

1. The multi-criteria minimum spanning tree (mc-MST) for rural road network, CESS Nepal, January, 2016
2. Rural road construction in hilly regions of Nepal, SERDeN, August 2015
3. Live loads for rural bridges, Journal of the institute of engineering, Vol. 7, December 2009
4. Development of trail bridge technology Nepal, CESS Nepal, October, 2009
5. Dynamic response of long cable stayed bridge to near field ground motion, ToSE Nepal, June 2009
6. Effective use of reinforcement bars, ToSE Nepal, September 2008
7. A model of rural transport system, NEIDS, September 2008
8. Evaluation of Roofing Systems of School Building in Hills, September 2004

9. Development of a Design Calculator for an isolated square footing, Journal of the institute of engineering, December 2003
10. An innovative approach of road construction in Hills, 9th National Convention of Engineers, May 2005

- **Conferences**

1. A numerical model for rural road network optimization in hilly terrains, YIC2012 — Universidade de Aveiro First ECCOMAS Young Investigators Conference 24–27 April 2012, Aveiro. Portugal.
2. Linkage pattern of rural road networks, 15th scientific conference for doctoral students JUNIORSTAV 2013 February 7, 2013 at the Faculty of Civil Engineering of Brno University of Technology. Republic of Czechoslovakia.
3. Development of a decision support model for optimization of tour time to visit tourist destination points in a city, ICSBS 2014, Brunel University, London.
4. Rural road network decision model for hilly regions of Nepal, 14th National Convention of Engineers, February 2016, Kathmandu.
5. Public facility locations and rural roads network in hilly regions of Nepal, 7th National Conference on Science and Technology, 2016-03-29, Kathmandu.

Department Of Civil Engineering
Pulchowk Campus
Institute Of Engineering