

Detail Program: Saturday, June 11, 2022

All times listed are US Eastern times (please add 9 hours 45 minutes to convert to Nepal time)

9:00 AM - 9:20 AM Conference Opening

Ananda Paudel, PhD, PMP, Conference General Chair
Welcome and Conference Overview**Thakur Dhakal, P.E.**, President, ASNEng
Welcome and Society's Overview**Invited Guest Speaker****HE Amrit Bahadur Rai**, Permanent Representative of Nepal to the United Nations, New York**9:20 AM – 9:50 AM Keynote Address**

Session Chair: **Upendra Karna, Ph.D., P.E. Immediate Past President ASNEng**, President, U & S Engineers, NJKeynote speech: “AI for infectious diseases: Pneumonia, TB and Covid-19” by **KC Santosh, PhD**, Chair, Department of Computer Science (CS), University of South Dakota (USD)**Break 9:50 AM – 10:00 AM****10:00 AM – 10:55 AM Technical Session I Urban Dwellings & Reconstruction**

Session Chairs:

Ramesh Malla, Ph.D., F. ASCE, F. EMI, A.F. AIAA,
F. ASNEng, M. CASE, Professor, University of
Connecticut, Storrs, CT**Shyam Sharma, Ph.D., P.E.**
Sr. Traffic Engineering Manager
Oregon DOT, ORNepal's Journey from Reconstruction to Resilience and the Role of the Engineering Community.
Sushil Gyawali, Ex-CEO National Reconstruction Authority, Nepal (**Invited Speaker**)Vulnerability Assessment of Urban Dwellings to Pounding Effects - A Pilot Study in Core Kathmandu
Tunisha Gyawali, Aarosh Dahal, Aashish Pokharel, Aayush Maan Karki, Bikesh Sedhain, Binu Devkota, & Kshitij Charana Shrestha, Department of Civil Engineering, Pulchowk Campus, Tribhuvan UniversityNumerical Modeling of Confined Masonry and its Application in Urbanizing Nepal
Ojaswi Acharya, Aarosh Dahal, & Kshitij Charana Shrestha
Department of Civil Engineering, Pulchowk Campus, Institute of Engineering, Tribhuvan University**Break 10:55 AM – 11:00 AM****11:00 AM – 12:00 PM Panel Discussion A ASNEng Programs and Initiatives**

Session Chair:

Nipesh Pradhananga, Ph.D., P.E.,
Associate Professor, Florida International University, FLASNEng Ongoing Activities

Panelists:

Ananda Paudel, Ph.D. PMP
DCMA, Lockheed Martin, Denver, CO**Narayan Pokhrel, P.Eng.**
Senior Dam Safety and Hydrotechnical Engineer
City of Calgary, Canada**Shyam Sharma, Ph.D., P.E.**
Sr. Traffic Engineering Manager, Oregon DOT, OR**Bishnu Phuyal, Ph.D.**
Geomatics Engineer

ASNEng Potential Collaborations

IOE Mathematics Curriculum Improvements
Children's Hospital in Nepal – **Dr. Bhagawan Koirala**

Lunch Break 12:00 PM – 12:30 PM**12:30 PM – 1:25 PM Technical Session II Engineering Technologies and Practices**

Session Chairs:

Rajendra Shrestha, Ph.D., F. ASNEng
Consulting Geophysicist, Oil & Gas, Houston, TX

Pratishtha Pradhan, Ph.D, P.E.
Supervising Engineer, City of Houston, TX

Challenges of Microtunneling through Urban Area - Maspeth, Queens, New York City, **Sukh Gurung, Ph.D., P.E.**,
Geotechnical Expert New York City, Department of Design & Construction, NY (**Invited Speaker**)

Space Mission Design, Satellite Design and Operation of SanoSat-1, **Rakesh Chandra Prajapati**, ORION Space,
Switzerland

Identification of Natural Frequencies of a Truss-type Railroad Bridge using a Laser Doppler Vibrometer
Santosh Dhakal, Celso Cruzde Oliveira, & Ramesh Malla, University of Connecticut, Storrs, CT

Break 1:25 PM – 1:30 PM**1:30 PM – 2:30 PM Technical Session III Sustainable Development and Smart Cities**

Session Chairs:

Ambika Adhikari, AICP
Architect & Planar,
Phoenix, AZ

Sandeep Pyakurel, Ph.D., P.E.
Senior Project Engineer – Tunnels
Mott McDonald, Washington DC

Greater Kathmandu Valley Metro Rail System for Integrated Development, **Badan Lal Nyachhyon**, Managing Director,
Multi Consult (P) Ltd & **Ananta R. Baidya, P.E.**, AB&H Engineering and Code Consulting Services, San Diego, CA

Smart Citizens Fitness Farming Center with UAV, **Achyut Shrestha**, NSF Research Traineeship ASU

Impacts of COVID-19 on sustainable constructions in Nepa, **Rujan Kayastha**, Texas State University

Detail Program: Sunday, June 12, 2022

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9:00 AM – 9:50 AM Opening

Session Chair: **Kaushal Kumar Jha, PhD, P.E.**
Senior Consulting Engineer
Raba Kistner, Inc.

Motivational Speech - **Karna Shakya**
Nepalese environmentalist, and conservationist

Guest Speech - **Dr. Santosh Sapkota**
Advisor, National Innovation Center (NIC) Nepal

Break 9:50 AM – 10:00 AM**10:00 AM – 10:55 AM Technical Session IV Energy**

Session Chairs:

Narayan Pokhrel, P.Eng.
Senior Dam Safety and Hydrotechnical Engineer
City of Calgary, Canada

Madan Baral, P.E.
Engineering Manager
Centrifugal Products, Greater Chicago Area, IL

Challenges in power sector infrastructure of Nepal and impact of MCC funding, **Khadga Bahadur Bisht**, Executive Director, Millennium Challenge Account Nepal (MCA-N) (**Invited Speaker**)

Infrastructure Asset Management Necessity for the Sustainability of Hydroelectric Power Plants: A Case Study of Nepal Electricity Authority, **Sushmit Sharma Bhattarai**, Texas State University

Break 10:55 AM – 11:00 AM**11:00 AM – 12:00 PM Panel Discussion B Emerging Leaders- Professionals and Entrepreneurs**

Session Chairs:

Mangal Maharjan
Design Engineer
EDF Renouvelables, MD

Sarmin Ghimire
Development Project Manager
Prince William County, VA

Panelists:

Raj Tamang, P.E.
Principal
Green Valley Design Group, LLC

Pooja Dahal
Chairperson/ Board member
Nepal Hydro & Electric Limited and Sambhavi
Infrastructure P Ltd.

Sandesh Pandey
IT Manager/ NIC Advisor
Superior Energy Services

Kris Ghimire
Licensed Real Estate Broker, CEO
Ghimire Homes

Sangita Malla
President & Founding Member
Education Advancement Initiative

Lunch Break 12:00 PM – 12:30 PM

12:30 PM – 1:25 PM Technical Session V Materials and Methods

Session Chairs:

Rajendra Bhattarai, P.E.

President, Clean Water Strategies, Austin, TX

Samana GhimireManager, Clinical Development Engineering,
Intuitive Surgical, Sunnyvale, CAUseful Materials from Kaolin for the 21st Century, **Prakash Malla, Ph.D.** Director, Research & Development,
Thiele Kaolin CompanyLow-cost technology for removing nitrogen and phosphorus from agricultural runoff, **Rabin Bhattarai, Ph.D.**
Associate Professor, University of Illinois at Urbana-Champaign, ILDesign of EMG data labeling tool for labeling classification into multiple class for classification task **Raman Silwal**
Department of Mechanical Engineering, Kathmandu University, Dhulikhel-Kavre, Nepal**Break 1:25 PM – 1:30 PM****1:30 PM – 2:05 PM Technical Session VI Sustainable Development and Smart Cities**

Session Chairs:

Srijana Khatiwada

Scientific Data Analyst

Centers for Disease Control and Prevention, GA

Luna RajbhandariVice President, Data Management & Platforms
Cars.com, Chicago, ILOptimized Itinerary Recommendation with AI for tourist, **Ranjan Shrestha**, Pulchowk Campus, Institute of
Engineering, Tribhuvan UniversityStatus of Nepali Speech Processing, **Basanta Joshi**, Pulchowk Campus, Institute of Engineering, Tribhuvan
University**2:05 – 2:30 PM Conference Closing**

Session Chair: **Thakur Dhakal, P.E.**

President, ASNEngr

E2I Contest Voting, Grant Quiz, Conference Awards, and Closing Remarks