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UNIVERSITY OF ALBERTA

3RD ANNUAL

STRUCTURES GRADUATE STUDENTS CONFERENCE

September 1st, 2017

The Royal Glenora Club

SGSC

PROGRAM

Registration and Breakfast	8:00 - 8:40
Opening Remarks	8:40 - 9:10
Keynote speaker	9:10 - 9:55
Session 1 - Steel	9:55 - 11:00
Break	11:00 - 11:20
Session 2 - Timber	11:20 - 12:00
Poster Session and Lunch	12:00 - 13:30
Keynote Speaker	13:30 - 14:15
Session 3 - Open	14:15 - 15:00
Break	15:00 - 15:20
Session 4 - Masonry and Concrete	15:20 - 16:30
Dinner and awards	16:30 -19:00

ORAL PRESENTATIONS

SESSION 1 - STEEL

Chair: Safa Masajedian

9:55 - 10:05 **Riley Quintin**- Load Sharing in Beam-to-Column Moment Connections of Industrial Steel Structures

10:05 - 10:15 **Dimple Ji** - Lateral-Torsional Buckling Response of Welded Wide Flange Girders

10:15 - 10:25 **Daniel Unsworth** - The Effect of Welding-Induced Residual Stresses on the Lateral-Torsional Buckling Behaviour of Welded Wide-Flange Girders

SESSION 1 - STEEL (CONT.)

10:25 - 10:35 **Pablo Cano** - Evaluation of Seismic Design Methods for Steel Multi-Tiered Concentrically Braced Frames

10:35 - 10:45 **Victoria Buffam** - Stability of Extended Shear Tab Connections

SESSION 2 - TIMBER

Chair: Daniel Unsworth

11:20 - 11:30 **Jianhui Zhou** - Inverse Determination of Effective In-Plane and Out-of-Plane Elastic Constants of Cross Laminated Timber by Modal Testing with Genetic Algorithm

11:30 - 11:40 **Jan Niederwestberg** - Development and Characterization of Bending and Shear Properties of 3- and 5- Layer Hybrid Mass Timber

11:40 - 11:50 **Md Abdul Hamid Mirdad** - Structural Performance of the Mass Timber Panel-Concrete Composite Floor System with Insulation; Phase I: Connection Test

SESSION 3 - OPEN SESSION

Chair: Fatemeh Fallahi Arezodar

14:15 - 14:25 **Ramon Rosales-Espinoza** - Experimental Response and Analysis Model of an Innovative Pile-to-Pile Mechanical Connector

14:25 - 14:35 **Shaghayegh Abtahi** - Probabilistic Evaluation of Strength Demands for Shear Buildings-Soil Systems

14:35 - 14:45 **Gregory Gislason** - Damage Detection in Tall Buildings Through Time Series Analysis of Ambient Wind Vibrations

SESSION 4 - MASONRY AND CONCRETE

Chair: Jonelle Jn Baptiste

15:20 - 15:30 **Pedram Kaheh** - Seismic Strengthening of Hollow Concrete Masonry Walls Using Eco-Friendly Ductile Cementitious Composites

15:30 - 15:40 **Samira Rizaee** - Experimental Study of Shear and Tensile Bond Strength of Adhered Manufactured Stone Units Individually Secured by Mortar Adhesion

SESSION 4 - MASONRY AND CONCRETE (CONT.)

15:40 -15:50 **Wai Man Wong** - Finite-Element Modelling of Reinforced Engineering Cementitious Composite Structure Under Seismic Loads

15:00 - 16:00 **Fereshte Talaei** - Numerical Simulation and Economic Design of Concrete Shear Walls Reinforced with GFRP Bars

16:00 -16:10 **Jeffrey Hung** - Artificial Neural Network Model for Analysis of In-Plane Shear Strength of Partially Grouted Masonry Shear Walls

16:10 - 16:20 **Joseph Entz** - Tall Masonry Walls with Inline Boundary Elements

POSTER PRESENTATIONS

Mridul Shahi - Flexural and Shear Response of FRP Reinforced Concrete T-beams with Basalt FRP Grid as Shear Reinforcement

Jesus Salazar- A New OpenSEES Software Material Using Mazars Damage Concrete Models

Sina Ghazizadeh - A Hybrid Method for Concrete Coarse Aggregates Packing Optimization

Zeinab Kamal - Biomechanical Analysis of Spinal Growth-Plate in a Ligamentous Musculoskeletal Thoracolumbar Model

Qipei Mei - Bridge Damage Detection from a Passing Vehicle Using Mel Frequency Cepstral Coefficients

Odin Guzman - Reliability Analysis for a Rational Design of Slender Masonry Walls

Ruihan Zhao - Effects of Timber Grain Angle on Load-Carrying Capacity of Connections Containing Inclined Self-Tapping Screw

Setare Seyedain Boroujeni - A Reliabilty Assessment Methodology for Existing Masonry Structures