

# EASEC-18 Conference Program

## Shangri-La Hotel Chiang Mai, 13-15 November 2024

### PROGRAM SCHEDULE

#### Tuesday 12 November 2024

15:00 – 17:45 Registration (Lobby, 1<sup>st</sup> Floor)

18:00 – 20:30 Welcome Reception Cocktail  
 Dress code: Smart Casual  
 Venue: Dhala Pool Bar, 1<sup>st</sup> Floor

#### Wednesday 13 November 2024

08:00 – 16:00 Registration (Lobby, 1<sup>st</sup> Floor)

Time	Activity
08:30 – 10:10	08:30 <b>Opening Ceremony</b> with Nishino Prize/Medal Presentations  09:00 <b>Plenary Keynote Session 1A</b> <b>Chair:</b> Prof. Y.B. Yang  <b>Keynote #1: Prof. J.N. Reddy</b> - Fracture Modeling of Plate Bending using Graph-based Finite Element Analysis (GRAFEA) <b>Keynote #2: Prof. Caijun Shi</b> - Durability of CO <sub>2</sub> Mineralized Materials and Products  <i>Venue: Lanna Ballroom 1&amp;2, 2<sup>nd</sup> Floor</i>
10:10 – 10:30	Morning Coffee Break (Foyer, 2 <sup>nd</sup> Floor)
10:30 – 11:40	10:30 <b>Plenary Keynote Session 1B</b> <b>Chair:</b> Prof. Hong Hao  <b>Keynote #3: Prof. Priyan Mendis</b> - Towards net-zero: Sustainable materials and Modular prefabricated construction <b>Keynote #4: Prof. Pennung Warnitchai</b> - An Overview of Earthquake Engineering Research Activities in Thailand

	<i>Venue: Lanna Ballroom 1&amp;2, 2<sup>nd</sup> Floor</i>
11:40 – 13:00	Buffet lunch <i>Venue: Lanna Ballroom 3, 2<sup>nd</sup> Floor</i>
13:00 – 15:00	<b>Parallel Sessions 1A</b> (Breakout rooms, 1 <sup>st</sup> Floor) <ul style="list-style-type: none"> <li>• Session 1A-1: Auditorium</li> <li>• Session 1A-2: Sukhothai I</li> <li>• Session 1A-3: Sukhothai II</li> <li>• Session 1A-4: Sukhothai III</li> <li>• Session 1A-5: Phayao I</li> <li>• Session 1A-6: Phayao II</li> <li>• Session 1A-7: Phayao III</li> </ul>
15:00 – 15:30	Afternoon Coffee Break (Foyer, 1 <sup>st</sup> Floor)
15:30 – 17:30	<b>Parallel Sessions 1B</b> (Breakout rooms, 1 <sup>st</sup> Floor) <ul style="list-style-type: none"> <li>• Session 1B-1: Auditorium</li> <li>• Session 1B-2: Sukhothai I</li> <li>• Session 1B-3: Sukhothai II</li> <li>• Session 1B-4: Sukhothai III</li> <li>• Session 1B-5: Phayao I</li> <li>• Session 1B-6: Phayao II</li> <li>• Session 1B-7: Phayao III</li> </ul>

## Thursday 14 November 2024

08:00 – 16:00 Registration (Lobby, 1<sup>st</sup> Floor)

Time	Activity
08:30 – 09:40	08:30 <b>Plenary Keynote Session 2A</b> <b>Chair:</b> Prof S. Kitipornchai  <b>Keynote #5: Prof. Jose Torero</b> - Holistic Performance of Mass Timber Structures <b>Keynote #6: Assoc. Prof. Juhyuk Moon</b> - Recent global trends in CCUS technologies  <i>Venue: Lanna Ballroom 1&amp;2, 2<sup>nd</sup> Floor</i>
09:40 – 10:00	Morning Coffee Break (Foyer, 2 <sup>nd</sup> Floor)
10:00 – 11:50	10:00 <b>Plenary Keynote Session 2B</b> <b>Chairs:</b> Prof Tamon Ueda and Prof L.J. Leu

	<p><b>Keynote #7: Prof. Jie Yang</b> - Phase change phononic crystals with high bandgap tunability of elastic waves</p> <p><b>Keynote #8: Prof. Louis Ge</b> - Bio-cementation Technique for Soil Liquefaction Mitigation</p> <p><b>Keynote #9: Shigeyoshi Tanaka</b> - The Evolution and Innovation of Civil Engineering Technology in Japan</p> <p><i>Venue: Lanna Ballroom 1&amp;2, 2<sup>nd</sup> Floor</i></p>
11:50 – 13:00	<p>Buffet lunch</p> <p><i>Venue: Lanna Ballroom 3, 2<sup>nd</sup> Floor</i></p>
13:00 – 15:00	<p><b>Parallel Sessions 2A</b> (Breakout rooms, 1<sup>st</sup> Floor)</p> <ul style="list-style-type: none"> <li>• Session 2A-1: Auditorium (<b>Invited Speaker: Prof. Lei Lei</b>)</li> <li>• Session 2A-2: Sukhothai I</li> <li>• Session 2A-3: Sukhothai II</li> <li>• Session 2A-4: Phayao I (<b>Invited Speaker: Prof. Tomonori Nagayama</b>)</li> <li>• Session 2A-5: Phayao II</li> <li>• Session 2A-6: Phayao III</li> </ul>
15:00 – 15:30	<p>Afternoon Coffee Break (Foyer, 1<sup>st</sup> Floor)</p>
15:30 – 17:30	<p><b>Parallel Sessions 2B</b> (Breakout rooms, 1<sup>st</sup> Floor)</p> <ul style="list-style-type: none"> <li>• Session 2B-1: Auditorium</li> <li>• Session 2B-2: Sukhothai I</li> <li>• Session 2B-3: Sukhothai II</li> <li>• Session 2B-4: Phayao I</li> <li>• Session 2B-5: Phayao II</li> <li>• Session 2B-6: Phayao III</li> </ul>
18:00-21:30	<p><b>Conference Dinner Banquet</b> including Awards Ceremony for:</p> <ul style="list-style-type: none"> <li>• EASEC-18 Best Young Researcher's Paper Award</li> <li>• EASEC Young Researcher/Engineer Award</li> </ul> <p>Dress code: Business Casual</p> <p><i>Venue: Lanna Ballroom 1&amp;2, 2<sup>nd</sup> Floor</i></p>

## Friday 15 November 2024

08:00 – 12:00 Registration (Lobby, 1<sup>st</sup> Floor)

Time	Activity
08:30 – 09:40	<p>08:30 <b>Plenary Keynote Session 3A</b>  <b>Chair:</b> Assoc. Prof. Paul Lam</p> <p><b>Keynote #10: Prof. Shiu Tong Thomas NG</b> - Disrupting the Construction Industry through Digital Transformation  <b>Keynote #11: Prof. David Chua Kim Huat</b> - Towards Intelligent Lifting for DfMA Construction</p> <p><i>Venue: Lanna Ballroom 1&amp;2, 2<sup>nd</sup> Floor</i></p>
09:40 – 10:00	Morning Coffee Break (Foyer, 2 <sup>nd</sup> Floor)
10:00 – 12:00	<p><b>Parallel Sessions 3A</b> (Breakout rooms, 1<sup>st</sup> Floor)</p> <ul style="list-style-type: none"> <li>• Session 3A-1: Auditorium</li> <li>• Session 3A-2: Sukhothai I</li> <li>• Session 3A-3: Sukhothai II</li> <li>• Session 3A-4: Sukhothai III</li> <li>• Session 3A-5: Phayao I</li> <li>• Session 3A-6: Phayao II</li> <li>• Session 3A-7: Phayao III</li> </ul>
12:00 – 13:00	<p>Buffet lunch  <i>Venue: Lanna Ballroom 3, 2<sup>nd</sup> Floor</i></p>
13:00 – 15:00	<p><b>Parallel Sessions 3B</b> (Breakout rooms, 1<sup>st</sup> Floor)</p> <ul style="list-style-type: none"> <li>• Session 3B-1: Auditorium</li> <li>• Session 3B-2: Sukhothai I</li> <li>• Session 3B-3: Sukhothai II</li> <li>• Session 3B-4: Sukhothai III</li> <li>• Session 3B-5: Phayao I</li> <li>• Session 3B-6: Phayao II</li> </ul>
15:00 – 15:30	Afternoon Coffee Break (Foyer, 1 <sup>st</sup> Floor)
15:30 – 16:00	<p><b>Closing ceremony and EASEC-19 handover</b></p> <p><i>Venue: Lanna Ballroom 1&amp;2, 2<sup>nd</sup> Floor</i></p>

# PARALLEL SESSIONS SCHEDULE

## Parallel Sessions 1A

**Date:** 13 November 2024, **Time:** 13:00-15:00

**Session:** 1A-1

**Topic:** Innovation in Materials Science and Engineering in Construction

**Room:** Auditorium

**Chair:** Assoc. Prof. Warangkana Saengsoy

No.	Paper ID	Paper Title	Presenter
1	INV2	Advancing Alkali-Activated Slag Performance through Molecularly Tailored PCE Superplasticizers	Prof. Lei Lei
2	A0023	Engineering properties of Sintered fly ash aggregates based Self-compacting concrete incorporating Supplementary cementitious materials	Mr. Pawan Kumar
3	A0024	Influence of sugarcane bagasse ash content on the strength of alkali-activated slag concrete developed with recycled coarse aggregates	Mr. Tejas S
4	A0054	A Study on Improvement of Initial Strength of Blast Furnace Slag Portland Cement Type C	Assoc. Prof. Daisuke Yamamoto
5	A0062	Study of Properties on High GGBS Concrete with Improved Low Quality Recycled Aggregate	Mr. Yota Takeiri
6	A0060	A Study of Effective Utilization of Concrete Sludge for Realization of Environment-Friendly TSC	Mr. Naito Yuya
7	A0038	Incorporating of thermal pretreated red mud to ground granulated blast furnace slag for production of high strength ambient-cured geopolymer	Mr. Jiarui Liu
8	H0004	Optimizing Aggregate Volume Fraction and Powder Integration for Enhanced Low Cement Concrete Performance	Prof. Antoni Antoni

**Session:** 1A-2

**Topic:** Advancements in Foundation and Geotechnical Engineering

**Room:** Sukhothai I

**Chair:** Prof. Sang Seom Jeong

No.	Paper ID	Paper Title	Presenter
1	A0098	Moisture-Density Relationship of Laterite Soil Stabilized with Waste Chip Tires	Mr. Yousong Lim
2	B0002	Numerical Analysis on Response of Rock-Socketed Piles under Uplift Loading in Soft Intact Rocks	Mr. R Ashwinth Raj
3	B0008	Compaction and UCS Characteristics of Recycled Concrete Aggregate and Lime Stabilized Laterite Soil	Mr. Syaifulloh Qoimuddin Ali Basyah
4	B0012	Countermeasures against the heaving by ground improvement under the invert with flat cross-section tunnel	Prof. Yasuyuki Nabeshima
5	B0016	Experimental Study on Dynamic Response and Liquefaction Characteristics of Sandy Silt Seabeds under Varied Wave Conditions	Mr. Xin Lan
6	B0017	Consideration of ground subsidence because of liquefaction based on Explainable AI	Mr. Kazuki Karimai
7	B0027	Research On Some Methods To Determine The Pre-Consolidation Pressure For Soft Clays	Mr. Nhat Truyen Phu
8	F0006	Embodied Carbon Upfront Data Calculations using an integrated BIM Power BI Approach	Assoc. Prof. Wonsiri Punurai

**Session:** 1A-3

**Topic:** Resilient structures and design for natural disasters and extreme events

**Room:** Sukhothai II

**Chair:** Prof. Masuhiro Beppu

No.	Paper ID	Paper Title	Presenter
1	C0014	Seismic performance of pile foundations reinforced with micropiles	Mr. Moshiur Rahman
2	C0015	Study of the Impact Performance of Expressway Concrete Barriers	Ms. Thilini Rajapaksha
3	C0019	Multi-Axis Cyclic and Hybrid Testing of Wind Turbine Towers under Seismic Loading	Assoc. Prof. Javad Hashemi
4	C0025	Seismic Assessment of Existing Reinforced Concrete Bridge in Indonesia by means Incremental Dynamic Analysis	Dr. Veby Citra Simanjuntak
5	C0031	Numerical simulation on impact resistant behavior of conventional rockfall protection fence	Prof. Masato Komuro
6	C0035	Numerical Analysis of Impact Behavior of RC Panels in NPP Structures under High-Speed Collision	Prof. Jae-Yeol Cho
7	C0042	Cyclic load tests on precast concrete wall with looped bars associated in vertical joint	Mr. Jetsada Sittikhankaew

**Session:** 1A-4

**Topic:** Advanced Construction Techniques, Operations, and Maintenance

**Room:** Sukhothai III

**Chair:** Prof. Jian-Guo Dai

No.	Paper ID	Paper Title	Presenter
1	D0002	Experimental study on pull-out behaviour of bonded anchor on masonry structures	Assoc. Prof. Hitoshi MORIYAMA
2	D0010	Comparison of Bed Channel Protector In Case of Reducing Length of The MDO Stilling Basin Using 3-D Print Model	Ms. Ingerawi Sekaring Bumi
3	D0015	Investigation of Out-of-plane Bending Behaviour of 3D-Printed Reinforced and Unreinforced Walls	Mr. Chamil Dhanasekara
4	D0022	Vision based structural displacement estimation method using template matching and target tracking	Mr. Jiale Hou
5	D0023	Axle-load-estimation of trucks running on urban expressway by using strains of transverse stiffeners	Prof. Eiki Yamaguchi
6	D0024	Soundness Evaluation of an Existing Steel Box Girder Bridge Using Rotational and Longitudinal Displacement Responses of Girder Ends	Mr. Phyo W. Hein
7	D0029	Mutual effects of adjacent bridges in bridge deflection estimation using track geometries	Mr. Koji Hattori



**Session:** 1A-5

**Topic:** Advancements in Structural Analysis and Design

**Room:** Phayao I

**Chair:** Asst. Prof. Ryo Sakura

No.	Paper ID	Paper Title	Presenter
1	E0022	Modeling techniques of end sway bracings for simplifying FE models of full scale bridges	Mr. Takuto Hirakawa
2	E0048	Multi-Restart CMA-ES with NNs and SNT for Finite Element Model Updating: A Case of a Short-Span Prestressed Concrete Girder Bridge	Mr. Koravith Tiprak
3	D0039	Development of a System-level Digital Twin for Precise Behavior Update of PSC Girder Bridge	Mr. Ki Yeol Kim
4	E0060	Load carrying performance evaluation of a short-span concrete deck slab bridge	Mr. Yoshifumi Ito
5	E0061	Precise Modelling and analysis of Ultra-high Hybrid Cable-Stayed Bridge Pylon with Special-shaped Composite Section of Construction	Mr. Chang Liu
6	E0064	Transitions in Load-Bearing Behaviors and Stress Distributions due to Damages to Modular Bridges	Mr. Kazuki Hara
7	E0065	Discrete Transition in Load-Bearing Capacity with Under the Preset Live Loads of Modular Bridge	Assoc. Prof. Takafumi Nishikawa
8	E0026	Design and Optimisation of Timber-Cardboard Sandwich Panels for Temporary Housing Applications	Mr. Mahmoud Abu-Saleem

**Session:** 1A-6

**Topic:** Symposia - Seismic Resilient Structures & Structural Vibration Control of Engineering Structures against Multiple Dynamic Hazards

**Room:** Phayao II

**Chair:** Prof. Bin Wang

No.	Paper ID	Paper Title	Presenter
1	K0001	Self-centering steel column base enabled by shape memory alloy bolts	Prof. Bin Wang
2	C0013	Development of a novel multi-stage yielding energy dissipation brace for seismic mitigation	Dr. Yu Xie
3	M0002	Using KDamper for seismic performance improvement of wind turbines	Dr. Haoran Zuo
4	M0008	Vibration Control of Offshore Wind Turbines with Self-powered Semi-active Tuned Mass Damper	Dr. Qinlin CAI
5	D0027	A study on the replacement evaluation method of prestressed concrete utility poles based on dynamic vibration characteristics	Mr. Ueno Takayuki
6	A0005	Using contact residuals of three-connected vehicles for identification of bridge frequencies and damping ratios	Prof. Judy P. Yang

**Session:** 1A-7

**Topic:** Symposia - Advances in Materials and Structural Engineering / Concrete technology and composite structures

**Room:** Phayao III

**Chair:** Assoc. Prof. Shingo Asamoto

No.	Paper ID	Paper Title	Presenter
1	P0015	Case Study of Sustainable Concrete Pavements Containing Recycled Waste Materials	Prof. Rebecca Gravina
2	A0107	Effective Control of Early-Age Cracking in Concrete Structures – Some New Insights	Assoc. Prof. Vinh Dao
3	P0014	Experimental Study on Patch Repair and Retrofit of RC Beam Members Using Epoxy Mortar.	Dr. Yu-Chuan Kao
4	S0001	The synergetic effect of IS and SSCA on the pre- and post-fire behavior of ultra-heavy-weight concrete	Assoc. Prof. Johny Ho
5	A0032	Effect of Iron Removal for Quality Improvement of Low-Grade Fly Ash in its Application in Green Concrete	Assoc. Prof. Januarti Jaya Ekaputri
6	A0049	Study on Time-Dependent Deformation Characteristics of Geopolymer Concrete	Mr. Kotaro Maekawa
7	A0108	Effects of Ammonia Contamination in Very High CaO Fly Ash on Properties of Pastes and Mortars	Mr. Puthvathna Chourn
8	A0080	EVALUATING THE INTEGRITY OF DAMAGED CONCRETE STRUCTURES	Assoc. Prof. Ayman Youssef Nassif

**Parallel Sessions 1B**  
**Date: 13 November 2024, Time: 15:30-17:30**

**Session:** 1B-1

**Topic:** Innovation in Materials Science and Engineering in Construction

**Room:** Auditorium

**Chair:** Assoc. Prof. Phuong Trinh Bui

No.	Paper ID	Paper Title	Presenter
1	A0046	Influence of Different Accelerators on The Early Performance of Cement in Different Curing Temperature	Mr. Cheng Xuan Yu
2	A0034	Monitoring of shrinkage in mortar and concrete using conductive thermoplastic polyurethane	Mr. Sillawat Sathorn
3	A0074	Prediction and regression analysis of concrete shrinkage in Thailand using machine learning.	Ms. Chomlucx Chonnanobbharrat
4	A0031	A Novel Capsule Composite for Improved Self-Healing in Concrete Sewage Pipes	Prof. Yan Zhuge
5	A0078	Comparison of Corrosion Rate According to Weight Loss and Cross-sectional Area loss	Prof. Kyung Suk YOO
6	A0087	Experiment and Simulation on Tensile Properties of Strain-Hardening Cementitious Composites Incorporating Superabsorbent Polymers	Dr. Yao Luan
7	E0070	Numerical Study on Effect of Variation in Thickness of Expanded Polystyrene Core in Sandwich Panel under Axial Load	Mr. Hibretu Kaske Kassa
8	A0063	Investigation of DEF expansion suppression mechanism focusing on the space in hardened cement mortars	Ms. Mikoto Hiro sugi

**Session:** 1B-2

**Topic:** Advancements in Foundation and Geotechnical Engineering

**Room:** Sukhothai I

**Chair:** Assoc. Prof. Amin Eisazadeh

No.	Paper ID	Paper Title	Presenter
1	A0055	Effect of Sub Catchment Division on the Railway System: A case study in Chiangmai, Thailand	Mr. Oleg Gorbunov
2	B0001	Design charts and finite element analysis to predict the settlement of piles embedded in soft ground.	Dr. Chollada Kanjanakul
3	B0003	Numerical analysis of stability of slopes reinforced with micropiles	Mr. Befkadu Kurtaile Otoma
4	B0015	Case Study with Finite Element Analysis of Abutment for Jacked-Frame Bridge	Mr. Fang Dong
5	B0025	Dynamic Analysis of Piled-raft-soil systems by 1g shaking table tests	Prof. Sang Seom Jeong
6	B0028	Influence of Bermuda Vegetation Roots on the Shear Strength Parameters of Laterite Soil	Mr. John Bosco Niyomukiza
7	B0029	ANALYSIS OF SEISMIC STATIONS IN NORTHERN THAILAND USING HVSR (HORIZONTAL-TO-VERTICAL SPECTRAL RATIOS)	Mr. Payam Asadinia
8	C0040	Dynamic Response and Reliability Analysis of High-Pile Wharf under Ship Impact Load	Dr. Chenyu Hou

**Session:** 1B-3

**Topic:** Resilient structures and design for natural disasters and extreme events

**Room:** Sukhothai II

**Chair:** Prof. Sutat Leelataviwat

No.	Paper ID	Paper Title	Presenter
1	C0001	Volcanic Damage Investigations Using X-Ray Fluorescence	Mr. Matthew D. Ehlers
2	C0020	Study of the Importance of Moment Ratio and Anchorage Length in Preventing Joint Shear Failure in Exterior Beam-Column Joints	Mr. Altho Sagara
3	C0023	Analysis and Design of A Hazard-Resistant Fast-Laying Interlocking Brick System	Dr. Xihong Zhang
4	C0024	Development of Homogenized Constitutive Model for Analysis of Interlocking Brick Wall	Prof. Hong Hao
5	C0032	Experimental Performance of RWS Connections with Circular Openings	Prof. Heui-Yung Chang
6	C0033	Numerical simulation on required anchoring depth of steel post for high rockfall protection fence placed on concrete retaining wall under impact loading	Prof. Norimitsu Kishi
7	C0044	Finite Element Analysis of Precast Concrete Wall Joints under Lateral Loads: A Comparison of Different Modeling Approaches	Mr. Thakrit Sirimongkhon
8	C0017	Probabilistic Seismic Evaluation of Suspended Zipper-Braced Frames	Dr. Mohammadali Mohammad Taghizadeh

**Session:** 1B-4

**Topic:** Advanced Construction Techniques, Operations, and Maintenance

**Room:** Sukhothai III

**Chair:** Assoc. Prof. Pakawat Sancharoen

No.	Paper ID	Paper Title	Presenter
1	D0003	Comparison of corrosion rate measured by LPR and actual corrosion of reinforcing steel	Mr. Natthawat Sooksomklin
2	D0005	Examination of methods for determining curing periods for some kinds of cement	Prof. Takeshi Iyoda
3	D0006	A Study for Estimating Surface Quality Using a Simple Ultrasonic Measuring Device	Ms. Yurika Noguchi
4	D0021	Flowability and slump test of geopolymer with waste glass	Dr. Jeung-Hwan Doh
5	D0025	Assessing The Effects Of Heavy Corrosion-Induced Damage In Steel Girder Ends Over Buckling And Post-Buckling Shear Strength	Mr. Yasin Mumtaz
6	D0026	Numerical Evaluation on Buildability of 3D Printing Mortar Based on Time-Dependent Material Model	Dr. Shunsei Tanaka
7	D0032	Performance surfaces bonded and embedded zinc sacrificial anode to protect corrosion of reinforcing steel	Ms. Ramida Tanvilai

**Session: 1B-5**

Topic: Advancements in Structural Analysis and Design

**Room:** Phayao I**Chair:** Assoc. Prof. Pang-jo Chun

No.	Paper ID	Paper Title	Presenter
1	E0003	The development of the design charts for optimum column design using H-shaped steel sections	Asst. Prof. Thaksakorn Pornbunyanon
2	E0023	Estimation of web plate stress in a flush endplate connection with horizontal stiffeners	Mr. Shion Kimura
3	E0053	Shear Resistance of Non-projected and Sandglass-shaped Bolt with High Strength and Durability	Mr. Masashi TAKAYAMA
4	E0033	A web-based API for parametric design of Australian steel structures	Assoc. Prof. Joseph M Gattas
5	E0035	Numerical and theoretical analyses of the shear-out strength of single-bolt lap joints	Dr. Jingsheng Zhou
6	E0036	Numerical Analysis of High-Strength Bolted Frictional Joints with Multi-Splice-Plates for Enhanced Energy Absorption Capacity	Asst. Prof. Yuma Sugimoto
7	E0040	Integrated structural optimization of monopile support structure for offshore wind turbines based on guide-weight method	Mr. Yanchen Wang
8	E0030	Automated Design Method for H-shaped Steel Columns Based on Deep Reinforcement Learning	Mr. Bochao Fu



**Session:** 1B-6

**Topic:** Symposium - Advances in Materials and Structural Engineering

**Room:** Phayao II

**Chair:** Prof. Chang-Wei Huang

No.	Paper ID	Paper Title	Presenter
1	P0001	Doppler radio wave sensor development for civil structural health monitoring	Dr. Yung-Bin LIN
2	P0002	Subspace-based Approach for Online System Identification under Seismic Events	Assoc. Prof. Shieh-Kung Huang
3	P0003	Bridge scour depth determination using deep learning	Prof. Chang-Wei Huang
4	P0005	Bidirectional analysis of bridge with varying-friction functional bearing under seismic excitation	Asst. Prof. Li-Wei Liu
5	P0007	Failure Mechanism on Formwork Supports Used in Construction of Reinforced Concrete Buildings	Prof. JUI LIN PENG
6	P0008	The study of nonreciprocal wave propagation in spatio-temporal metamaterial	Prof. I-Ling Chang
7	P0010	Structural health monitoring applications in an extradosed bridge	Dr. Hsiao-Hui Hung
8	P0009	High Performing Lightweight Flexible Honeycomb Sandwich Geomats	Assoc. Prof. Hassan Karampour

**Session:** 1B-7

**Topic:** IJSSD Symposium 2024 - Advances in Structural Stability and Dynamics

**Room:** Phayao III

**Chair:** Prof. Xiangying Guo

No.	Paper ID	Paper Title	Presenter
1	J0026	Damage identification of steel frames with semi-rigid connections using machine learning	Mr. Khanh D. Duy
2	J0027	Inverse problem for health monitoring of functionally graded plates using deep learning	Mr. Khanh D. Dang
3	J0038	Effect of the end supports on the buckling performance of oblate hemi-ellipsoidal shells	Mr. Pakavat Kerdsuk
4	J0012	Dynamic Response of Low-profile Prestressed Concrete Bridges Subjected to Moving Vehicles	Dr. Dongqi Jiang
5	J0017	Identification of Internal Forces in Prestressed Concrete Bridges using Substructural Modelling and Lagrangian Interpolation Technique	Mr. Kunaratnam Jeyamohan
6	J0036	Research on Vibration Control of Manipulator Using Particle Damper	Dr. Yunan Zhu
7	J0045	Dynamic Behaviors of Multi-layer Plate on a Varying Stiffness Foundation under Dynamic Harmonic Load and Temperature using MEM	Dr. Luong Van Hai
8	F0007	Development of an IoT sensor for drive-by bridge condition monitoring	Prof. Jun Li

**Parallel Sessions 2A**  
**Date: 14 November 2024, Time: 13:00-15:00**

**Session:** 2A-1

**Topic:** Innovation in Materials Science and Engineering in Construction

**Room:** Auditorium

**Chair:** Prof. Rebecca Gravina

No.	Paper ID	Paper Title	Presenter
1	A0109	Development of Technology to Spray and Fix CO <sub>2</sub> during Concrete Manufacturing	Dr. Junichi MATSUMOTO
2	A0104	Workability and Compressive Strength of Multi-binder Concrete with Calcined Clay	Ms. Wasana Piumi Kumari Rupaisnghe
3	A0037	Experimental Evaluation Methods for the Carbon Dioxide Absorption Characteristics of Cement	Prof. Atsushi Shimabukuro
4	A0056	Evaluation of compressive strength characteristics induced by mineral carbonation in cement mortar using CO <sub>2</sub> microbubble mixed water	Mr. Min-Seok Nam
5	A0040	Mechanical properties of recycled aggregate concrete using C-S-H seeds and fly ash	Mr. TIANYI ZHANG
6	A0051	Bulk Density and Compressive Strength of Hardened Concrete with Pelletized Aggregate Made from Mixture of Cement-Fly Ash-CaSO <sub>4</sub> .2H <sub>2</sub> O	Mr. Ngoc Duy Vo
7	A0061	The embedded steel connection in geopolymer concrete subjected to coupled cyclic pull-out force and water	Mr. Hiroyuki Takashina
8	A0013	Development of Cement-Free Mortar Integrated with Aluminosilicate Materials	Mr. Rohit Rawat

**Session:** 2A-2

**Topic:** Advanced Construction Techniques, Operations, and Maintenance

**Room:** Sukhothai I

**Chair:** Asst. Prof. Yuma Sugimoto

No.	Paper ID	Paper Title	Presenter
1	D0004	Reinforcement schemes for large web openings in cold-formed steel joists	Prof. Ken Sivakumaran
2	D0028	A Calculation Method for Construction Safety Control of Welded Rebar Parts in Concrete Bridge Towers Based on Finite Element Analysis	Mr. Chunsong Gao
3	D0035	Flexural behavior of RC beams hybrid strengthened with TRUHPC using end self-locking and grooving techniques	Prof. Yi Wang
4	D0036	Cause Investigation of Damages to Cross Beam Connections of Steel Langer Bridge with Stiffening Truss	Mr. JINSEI FURUIE
5	D0037	Research on adhesive construction method of building exterior decoration materials	Assoc. Prof. Chutsen Liao
6	D0040	Shape Memory Alloy Plate Reinforced Cracked Steel Bridge - A Practical Engineering Case Study	Mr. Zhongyu Fei
7	D0042	ANALYTICAL CONSIDERATIONS ON DELAMINATION AND SHEAR DEFORMATION SHAPES IN RUBBER DAMPERS	Mr. Suguru Kodaka
8	B0026	Quantitative Study on the Damage of Pile Wharf Foundation Piles Based on BP Neural Network	Dr. Zhengxie Zhang

**Session:** 2A-3

**Topic:** Advancements in Structural Analysis and Design

**Room:** Sukhothai II

**Chair:** Assoc. Prof. Teraphan Ornthanmarath

No.	Paper ID	Paper Title	Presenter
1	E0044	A study for utilizations of full-scale FEM fatigue simulations at road bridge maintenance management	Mr. Yusei Yoshikawa
2	E0054	Evaluation of fatigue damage ratio for slotted tubular joints of overhead transmission tower with fatigue cracks	Mr. Naohiro Soda
3	E0017	Component-Level Fatigue Reliability Assessment of Novel Ring-Flange Connections in Lattice-Tubular Hybrid (LTH) Wind Turbine Towers	Dr. Yuxiao Luo
4	E0063	Dynamic response of steel and composite girders considering train/bridge dynamic interaction effects	Mr. Haruyuki KITAGAWA
5	E0007	Utilizing Nonlinear Dynamic Time history Analysis Method for Seismic Evaluation and Retrofitting of RC Buildings Structure	Mr. Pu Wen Weng
6	E0029	Seismic Performance Evaluation of Masonry Walls Subjected to In-Plane Rocking Behavior	Prof. Ho Choi
7	E0052	Assessing the Impact of Stiffness Modifiers on Seismic Performance of Typical Low-Rise and High-Rise Buildings in Nepal: A Comparative Numerical Analysis	Mr. Ashish Sapkota
8	E0057	Estimate Damaged Structural Seismic Performance Based on Damage Index	Dr. Kunyang Wang

**Session:** 2A-4

**Topic:** Smart Infrastructure Systems and Construction Management

**Room:** Phayao I

**Chair:** Prof. John Julian Smallwood

No.	Paper ID	Paper Title	Presenter
1	INV1	Infrastructure Assessment Using AIOT Technologies	Prof. Tomonori Nagayama
2	F0008	Survey of BIM Utilization in Japan through Questionnaire	Mr. Mizuki AKIYAMA
3	F0032	Building BIM-GIS model for post-vessel collision assessment and re-design of wharf structure: A case study in southern Vietnam	Mr. KHOA Dang Ly
4	F0012	Mixed Reality Visualizations for Building Construction and Operations: Concept, Applications, Benefits and Challenges	Prof. Salman Azhar
5	F0027	Integrating AI and 3D Data Platform for Advancing Infrastructure Inspection including Enhanced Damage Assessment and Modeling	Assoc. Prof. Pang-jo Chun
6	F0018	Circular economy: an overview of drivers and benefits in the context of construction industry	Mr. Trung Quang Khuc
7	F0028	A Study on Bridge Abolition Planning in Rural Areas of Japan Using Spatial Information	Mr. Kento Fukuzawa
8	F0020	The Correlation Between Wind Disaster Events and Wind Induced Damage to Structures in Indonesia	Dr. Prasanti Widyasih Sarli

**Session:** 2A-5

**Topic:** IJSSD Symposium 2024 - Advances in Structural Stability and Dynamics

**Room:** Phayao II

**Chair:** TBC

No.	Paper ID	Paper Title	Presenter
1	D0017	Study on fatigue behaviors of steel plates in neutral salt spray environment	Dr. An Chang
2	E0020	High-efficiency bracing system design of three-ribbed arches for out-of-plane stability	Mr. Chuanhao Zhao
3	J0008	Hencky bar-chain model for buckling analysis of arches of any shape, support and loading conditions	Mr. Jinming Zhang
4	J0039	Surface Stress and Couple Stress Effects on Large Deflection Behavior of End Supported Nanorods	Mr. Sitti Prasittikulwat
5	J0028	Dynamic behavior of inelastic nonlinear space steel frames with bracing system under earthquake using advanced analysis method	Dr. Qui X. Lieu
6	J0030	Multi-objective optimization of trusses under constraints using modified firefly algorithm	Dr. Qui X. Lieu
7	J0040	Size-Dependent Effect on Natural Frequency of Hemispherical Shells Based on Modified Couple Stress Theory	Mr. Piyawat Suwankornkij

**Session:** 2A-6

**Topic:** Symposium - Structural Health Monitoring and Damage Identification Under Changing Environment and Operational Conditions

**Room:** Phayao III

**Chair:** Prof. Dongsheng Li

No.	Paper ID	Paper Title	Presenter
1	L0003	Robust vision-based structural displacement measurement using a complementary strategy	Dr. YUFENG WENG
2	L0005	Improvement of Experimental Method Aimed at Enhancing the Accuracy of Calibration Curves in Magnetostriction Measurement	Ms. Haruna Saito
3	L0006	Basic Study on Maintenance Scenario for Aging Steel Bridges by Using Numerical Corrosion Progress Model and 3D Scanners	Ms. Aya Inoue
4	L0007	Consideration on Field Measurement and Stress Analysis for Crossbeam of Steel Bridge Piers Using the Magnetostriction Method	Ms. Yui Kubota
5	L0008	Research on Topological Signal Processing Method for Damping Identification under Ambient Vibration Measurements	Dr. Peng Guo
6	L0010	Experimental Investigation and Analytical Model on the Flexural Behavior of Corroded Reinforced Concrete Beams	Ms. Nutchanok Ueatrongchit
7	L0012	Structural Monitoring for Road Bridges: An Evaluation Method for Damping Characteristics and the Impact of Temperature	Dr. Kouichi Takeya
8	L0013	A new method for shape sensing of structural large deformations	Assoc. Prof. Tao Jiang



**Parallel Sessions 2B**  
**Date: 14 November 2024, Time: 15:30-17:30**

**Session:** 2B-1

**Topic:** Innovation in Materials Science and Engineering in Construction

**Room:** Auditorium

**Chair:** Assoc. Prof. Ganchai Tanapornraweekit

No.	Paper ID	Paper Title	Presenter
1	A0112	Modeling the tensile fracture behavior of rebar-reinforced UHPC members based on 3D RBSM	Dr. Minghong Qiu
2	A0004	Utilization of One-stage Detection Algorithm to Predict UHPFRC Cracking Locations Through Fiber Distribution Analysis	Dr. Xin LUO
3	A0015	Effect of Early-Age Ultra-High Performance Fiber Reinforced Concrete (UHPFRC) on Fatigue Behavior of Repaired RC Slab	Ms. Amatulhay Pribadi
4	A0017	Failure Mechanisms of Post-tensioned Flat Plate Structures with High-Performance Reinforced Concrete (HPC) Slab-Column Joint	Ms. Ziqi Zhao
5	A0033	Investigation on the shear-bond strength between ultra-high performance concrete (UHPC) and normal concrete with interface joint	Mr. Natthapon Suksomklin
6	A0064	Study on the Load-Bearing Characteristics of Fiber-Reinforced Concrete Members Using Low-Melting-Point Metal Fibers	Prof. Nobuhiro Chijiwa
7	A0057	Experimental study on capacitance-based internal damage monitoring of GFRP	Dr. Akihiko Sato
8	A0106	Integrating Graphene Oxide for the Design of Low-Carbon Concrete	Mr. Danula Udumulla

**Session:** 2B-2

**Topic:** Advanced Construction Techniques, Operations, and Maintenance

**Room:** Sukhothai I

**Chair:** Assoc. Prof. Takafumi Nishikawa

No.	Paper ID	Paper Title	Presenter
1	D0007	Structural Strengthening of Concrete Bridge Girders, Piers and Foundation	Dr. Riyad Aboutaha
2	D0008	Replacement of Fiji Central and Western Critical Bridges – Wainawi Bridge – 2 Stage Construction Methodology	Mr. Tiago Jose Teixeira Ribeiro
3	D0009	Replacement of Fiji Central and Western Critical Bridges – Bulu Bridge Repairs and Overlay with Latex Modified Concrete Reinforced with Fibres	Mr. Tiago Jose Teixeira Ribeiro
4	D0019	A study about the combined deterioration progress in reinforced concrete members with water-submerged three-point bending fatigue tests	Mr. Kai Matsutani
5	D0030	Improving Girder Bridge Deterioration Forecasts in Japan with Graph Transformer on Element Adjacency Graphs	Dr. Shogo Inadomi
6	D0033	Statistical deterioration modeling of national road bridges in Bhutan	Mr. Masaya Okada
7	D0038	Strengthening of Reinforced Concrete Structures Using Small-Diameter FRP Bars and Ultra-High-Strength Engineered Cementitious Composites	Prof. Jian-Guo Dal

**Session:** 2B-3

**Topic:** Advancements in Structural Analysis and Design

**Room:** Sukhothai II

**Chair:** Prof. Ken Sivakumaran

No.	Paper ID	Paper Title	Presenter
1	E0024	Mechanical behaviors of combined friction and bearing type bolted joints with adjustment plates	Mr. Shuto Yoshida
2	E0019	Confinement Reinforcement of Reinforced Concrete Tied Columns under High Axial Load	Mr. Wen-Cheng Shen
3	E0047	Determination of Bending Rigidities of Beams Using Physics-Informed Neural Networks	Ms. Reza Afrah Afifah
4	E0005	Low-carbon design of reinforced concrete structures using knowledge-enhanced graph neural networks	Prof. Xinzheng Lu
5	E0072	Preliminary Design with a Simple Boundary Condition for a Deep-Water Substructure Supporting a Floating Offshore Wind Turbine	Dr. Wichuda Munbua
6	E0062	Assessment of Grout Defect in Post-Tensioned PC Duct with Hammer Impact Test and Machine Learning	Dr. Keigo Suzuki
7	E0034	Machine Learning Models to consider the Impact of Initial Imperfections on the axial buckling strength calculation of steel CHS members	Mr. Zhengyang Hou

**Session:** 2B-4

**Topic:** Transportation Engineering

**Room:** Phayao I

**Chair:** Dr. Azam Amir

No.	Paper ID	Paper Title	Presenter
1	G0001	Investigating Geometric Design Characteristics and Crash Rates of Roundabouts in Thailand	Mr. Chaiwat Yaibok
2	G0003	Prediction of pavement condition index from visual surface condition rating using regression analysis	Dr. Azam Amir
3	G0006	Optimizing Airport Pavement Condition Index through Redefining Deduct Value Curve Model, Area, and Orientation of Sample Unit	Mr. Aris Wibowo
4	G0007	Development of Maximum Temperature Prediction Model Within Asphalt Pavement Layers for Airports in Tropical Regions	Mr. Pebri Herry
5	G0010	Assessing the Effect of Signalizing the Romulo Highway and Tibag-San Isidro Road Intersection in Tarlac City, Philippines Using LocalSim	Mr. Alvin Joseph Santos Dolores
6	G0012	Semi-Automated Pedestrian Verandas Quality Assessments	Mr. Weiche Yen
7	G0013	Understanding the Impact of Weather Conditions on Transportation Mode Choices in Taiwan	Mr. Non Phichetkunbodee
8	F0019	Transit-Oriented Development in Ho Chi Minh City: Exploring Challenges and Opportunities for Sustainable Growth	Mr. Trung Quang Khuc

**Session:** 2B-5

**Topic:** Circular and Green Construction Economy

**Room:** Phayao II

**Chair:** Prof. Salman Azhar

No.	Paper ID	Paper Title	Presenter
1	H0011	Progress of corporate social responsibility for sustainable practices in Japanese construction companies in the SDGs era	Dr. Ludmila Soares Carneiro
2	H0001	The Role of Energy Efficiency for the New Green Roofs Construction Techniques by Using Lightweight Cellular Concrete	Mr. Hanny Chandra Pratama
3	H0008	Carbon Emission Assessment of 3D Printed Hybrid Modular Concrete Building: Work Breakdown Structure	Ms. Thet Htet Ye Htun
4	H0009	Effectiveness of TiO <sub>2</sub> -Anatase & Rutile Phase in Photocatalytic Reduction of Urban Air Pollution	Ms. Shweta Mishra
5	H0010	A restoration plan for damaged bridge that takes into the river environment and waste reduction	Mr. Koichi Sawajiri
6	H0013	IMPLEMENTATION OF CIRCULAR ECONOMY WITHIN THE THAI CONSTRUCTION INDUSTRY SUPPLY CHAIN	Mr. Worawat Sriudom
7	H0006	Sustainable modular timber membrane shade structures from under-utilised plantation thinnings	Assoc. Prof. Joseph M Gattas
8	H0007	Flexural performance of hybrid fibre-reinforced recycled aggregate concrete beams with steel fibre-reinforced polymer composite bars (SFCBs)	Mr. Paing Htet

**Session:** 2B-6

**Topic:** IJSSD Symposium 2024 - Advances in Structural Stability and Dynamics

**Room:** Phayao III

**Chair:** Assoc. Prof. Wenhao Pan

No.	Paper ID	Paper Title	Presenter
1	J0002	Analyses of functionally graded porous structures	Dr. Da Chen
2	J0005	Predicting Post-critical Load drop in Conical Shells through Artificial Neural Network	Mr. Rohan Majumder
3	J0006	Aerodynamic Stability Analysis of Orthotropic Tensile Membrane	Mr. Ajay Kumar
4	J0014	Effect of basalt macro fibres on the impact behaviour of geopolymer concrete beams with composite bars	Assoc. Prof. Wensu Chen
5	J0031	Dynamic fracture investigation of 2D concrete structures by a rate-dependent cohesive zone model based on finite particle method	Dr. Yufeng Kang
6	J0011	Evaluating the Residual Seismic Capacity of Damaged Low-Rise Reinforced Concrete Walls	Prof. WEN-I LIAO

**Parallel Sessions 3A**  
**Date: 15 November 2024, Time: 10:00-12:00**

**Session:** 3A-1

**Topic:** Innovation in Materials Science and Engineering in Construction

**Room:** Auditorium

**Chair:** Assoc. Prof. Siti Aminah Osman

No.	Paper ID	Paper Title	Presenter
1	A0027	Rethinking Rigid Pavement Subbases: Development of Eco-Friendly Lean-Mixed Concrete	Dr. Janitha Madhavia Migunthanna
2	A0066	Construction of Madhumati Bridge - Erection Nielsen Lohse Bridge Over the Ganges River-	Mr. MASAO MINAGAWA
3	A0077	Advancing Bridge Construction: Integrating High-Performance Concrete (HPC) for Enhanced Durability and Sustainability	Dr. NGOC THI HUYNH
4	A0036	Introduction of a composite seismic wall incorporating CLT panel infill into RC moment-resisting frame	Prof. Yasushi Sanada
5	A0047	Effect of Node on Compressive and Shear Strengths of Bambusa Multiplex	Asst. Prof. Vatwong Greepala
6	A0073	An experimental study on deformation performance of precast beam-column joint with closed lap splices	Mr. Koichi Matsumoto
7	A0014	Effect of corrosion on bonding of galvanized reinforcing steel	Mr. Mengty Toeng

**Session:** 3A-2

**Topic:** Advancements in Structural Analysis and Design

**Room:** Sukhothai I

**Chair:** TBC

No.	Paper ID	Paper Title	Presenter
1	E0056	Stress sharing between the slab and main girder for lateral loads in road bridges	Mr. Yoshiharu Kanno
2	E0074	Comparison of Member Forces in Transfer Girder System based on Numerical Models	Mr. Jihun Kim
3	E0037	Mechanical Slip Behavior of the Bolted Box Girder Connection consisting of Slip Critical Flange and Web Joints	Asst. Prof. Ryo Sakura
4	E0068	Assessing the fragility of Standing Seam Metal Roofs to Installation defects	Mr. Kyungrok Kwon
5	E0073	Proposal of Natural Period Correction Factors for Unreinforced Masonry Walls in RC Moment Frame Buildings	Mr. JungWoo Lee
6	E0012	Virtual Spring Method for Real-time hybrid testing of a Seven-story Reinforced Concrete Building	Dr. ShihWei Yeh
7	E0075	Carbon Fiber Textile Reinforced Concrete Slab Elements Subjected to Flexural Loading	Assoc. Prof. Rami Eid



**Session:** 3A-3

**Topic:** Symposium - Bayesian System Identification of Civil Engineering Structures

**Room:** Sukhothai II

**Chair:** Assoc. Prof. Jia-Hua Yang

No.	Paper ID	Paper Title	Presenter
1	N0002	A time-domain Bayesian model updating method in the absence of excitation information	Dr. Zheng Yi FU
2	N0003	MCMC-based Bayesian model updating of a long-span bridge utilizing measured modal parameters	Assoc. Prof. Heung Fai Lam
3	N0004	Bayesian System Identification Using Convolutional Neural Networks Integrated with Physics	Mr. Ze-Chen Li
4	N0005	Structural damage identification of an unsymmetrical frame based on variational Bayesian model updating with an improved PSO algorithm	Prof. Qin Hu
5	N0006	Quantifying Non-uniqueness in model updating and damage detection following a Bayesian approach	Dr. Jia-Hua Yang
6	N0008	Integrating Physics-Informed and Generative Adversarial Networks for forward and inverse problems of System Identification	Mr. Chi-Xiao Yang
7	N0009	Bayesian structural identification using subset simulation	Mr. QingFeng Gui

**Session:** 3A-4

**Topic:** Contract and Legal Affairs in Construction / Professional Practices and Education

**Room:** Sukhothai III

**Chair:** Prof. Sai On Cheung

No.	Paper ID	Paper Title	Presenter
1	I0004	Structural engineering recent graduate competences- Part I: Perception of employers	Assoc. Prof. Ayman Youssef Nassif
2	Q0001	Machiavellianism and Idiosyncratic Deals in Construction Dispute Mediation	Prof. Sai On Cheung
3	Q0002	Organizational Justice in Construction Dispute Negotiation: How Different Types of Justice Shape Negotiation Settlement	Dr. Sen LIN
4	Q0003	Revealing the Role of Organizational Resilience in Relationship Quality between Government and Private Sector in PPP Projects	Assoc. Prof. Liuying ZHU
5	Q0005	The State of the South African Construction Industry	Prof. John Julian Smallwood
6	A0053	Development of a Supporting Tool to Enhance Imagination in Learning Structural Mechanics	Dr. Li Li
7	I0003	Consideration of bridge failure based on the main factors of modern suspension bridge collapses and accidents	Mr. Michio Saitoh
8	I0005	The Importance-Performance Analysis of Crisis Management Strategies of Thailand's Small Construction Business During the Covid-19 Pandemic	Dr. Somjintana Kanangkaew

**Session:** 3A-5

**Topic:** Symposium - Australian Network of Structural Health Monitoring (ANSHM) mini-symposium: Emerging techniques for structural health monitoring of civil infrastructure

**Room:** Phayao I

**Chair:** Prof. Jun Li

No.	Paper ID	Paper Title	Presenter
1	A0039	Multi-Scale Domain Adversarial Neural Networks for Enhanced Bearing Fault Diagnosis	Dr. Zhengkun Xie
2	R0001	Structural Damage Identification based on Physics-guided Deep Learning: Numerical and Experimental Validations	Mr. Yongzhi Lei
3	R0002	Study on the effect of TMD damper on vibration control of cable-stayed cable of cross-sea bridge	Dr. Zheng Wang
4	R0003	A study of the validity of LoRa sensor nodes in footbridge vibration monitoring	Ms. Huiyue Qiao
5	R0004	Automatic pavement crack width and depth quantification using a deep learning framework with RGB-D information fusion	Dr. Yancheng Li
6	L0002	Rapid structural identification of existing buildings subject to earthquake ground motion: The case study of Chiang Mai and Chiang Rai	Prof. Pennung Warnitchai

**Session:** 3A-6

**Topic:** IJSSD Symposium 2024 - Advances in Structural Stability and Dynamics

**Room:** Phayao II

**Chair:** Assoc. Prof. Wenhao Pan

No.	Paper ID	Paper Title	Presenter
1	E0071	Cancellation of Resonance for Elastically Supported Beams Subjected to Successive Moving Loads	Prof. Yeong-Bin Yang
2	J0004	Nonlinear Vibration of a Buckled Magneto-Electro-Elastic Nano Beam including Surface Energy Effects	Dr. Manjur Alam
3	J0007	Vibration Stability Analysis of Beam String Structures based on Exact Matrix Stiffness Method	Mr. yufei guo
4	J0016	Analysis of the effects of damaged structural component's type and floor distribution on natural frequency in high-rise buildings	Mr. Huahua Qiu
5	J0029	Free vibration analysis of plates using reduced isogeometric analysis	Dr. Qui X. Lieu
6	C0004	Seismic responses of segmental-columns supported bridges subjected to crossing-fault ground motions	Dr. Kaiming Bi
7	J0044	Ride Comfort Analysis of High-speed Train Subject to Braking Torque	Mr. Abdul Hakim Masyhur

**Session:** 3A-7

**Topic:** Innovation in Materials Science and Engineering in Construction

**Room:** Phayao III

**Chair:** Prof. Nakhorn Poovarodom

No.	Paper ID	Paper Title	Presenter
1	A0070	Valorization of Abaca ( <i>Musa textilis</i> Nee) Fibers By-products for Textile-Reinforced Mortar in Structural Strengthening	Mr. Earl Gerald Lansangan Gregorio
2	A0102	Design and Construction Study of New Prefabricated Bridge Piers	Mr. Zekai Shu
3	A0065	Experimental and FE Analytical Study on Flexural Load-Bearing Mechanism of Hybrid Basalt FRTP-Steel-RC Beams	Mr. Yasuo Yamasaki
4	A0084	Strengths and Impact Resistance of Functionally Graded Concrete Incorporating Recycled Concrete Aggregate and Polypropylene Fiber	Assoc. Prof. Phuong Trinh Bui
5	A0021	READINESS AND BARRIERS TOWARD IMPLEMENTING LEAN CONSTRUCTION MANAGEMENT IN URBAN ROAD PROJECTS IN ADDIS ABABA, ETHIOPIA	Mr. MEKONNEN TIBEBU CHEKOL
6	A0071	Study on steel corrosion resistance of mortar mixed by water with high NaCl salinity over 10 %	Dr. Shingo Asamoto
7	A0105	Development of Non-Cement Mortars Using Calcined Clay, Fly Ash, and Calcium Carbide Residue	Mr. Bao Van Do

**Parallel Sessions 3B**  
**Date: 15 November 2024, Time: 13:00-15:00**

**Session:** 3B-1

**Topic:** Innovation in Materials Science and Engineering in Construction

**Room:** Auditorium

**Chair:** Prof. Nobuhiro Chijiwa

No.	Paper ID	Paper Title	Presenter
1	A0075	Data Delivery for Digital Twin Models of Prestressed Concrete Bridges	Prof. Changsu Shim
2	F0004	Challenges in Adopting Building Information Modelling (BIM) in Vietnam: A Decade's Perspective.	Dr. Peter Nørkjær Gade
3	F0011	Building Information Modeling Object Accuracy Analysis Based on Point Cloud Using an Unmanned Aerial Vehicle (UAV)	Mr. Bhima Dhanardono
4	A0076	Investigating Brittle Failure in Timber Connections: An Image-Based Experimental Approach	Mr. MUHAMMAD ABUL KALAM AZAD
5	A0083	KNOCKDOWN FACTOR (KDF) IN LAMINATED COMPOSITE CYLINDRICAL SHELLS WITH GEOMETRIC IMPERFECTIONS	Mr. Ayan Dutta
6	A0085	Preliminary study on a novel brace-to-gusset plate connection utilising SMA angles	Ms. Min Zhu
7	A0086	Study on the Recovery Stress Loss and Mechanical Behavior of NiTi Shape Memory Alloy Plates	Dr. Jun Deng

**Session:** 3B-2

**Topic:** Advancements in Structural Analysis and Design

**Room:** Sukhothai I

**Chair:** Assoc. Prof. Wensu Chen

No.	Paper ID	Paper Title	Presenter
1	E0041	Fundamental test on the characteristics of blast pressure acting on a box-type structure	Prof. Masuhiro Beppu
2	E0066	Consecutive drop-weight impact load testing for RC beams with externally bonded AFRP sheets	Asst. Prof. Tomoki Kawarai
3	E0067	Effect of Constitutive Laws on Numerical Simulation Accuracy and Applicability to Impact-Loaded RC Beams	Mr. LUONG THAI ANH DUY
4	E0046	Enhancing Subsurface Crack Detection in Orthotropic Steel Decks: A Numerical Study of Optimized Eddy Current Techniques and Probe Configurations	Mr. Nitipong PRAPHAPHANKUL
5	F0003	An Enhanced Digital Twin Solution with Crack Type Classification in CHS X-Joints under Brace Axial Loading	Mr. Evan Wei Wen Cheok
6	E0045	Image-Based SBFE-BESO Approach for Solving In-Plane Multi-Material Topology Optimization	Dr. Rut Su

**Session:** 3B-3

**Topic:** Advancements in Structural Analysis and Design

**Room:** Sukhothai II

**Chair:** TBC

No.	Paper ID	Paper Title	Presenter
1	E0059	Analytical study on stress reduction in single patch plate bonded joints under bending force by patch plate end design optimization	Asst. Prof. Visal Thay
2	E0008	The Investigation of Complex Geometric Orthotropic Material Structures Based on A Novel Analytical Method	Assoc. Prof. Yi-Chuang Wu
3	E0076	Effects of printing interval time on the structural performance of 3D-printed beams under four-point bending loads	Ms. Sirakan Seepim
4	F0025	Deep Learning-Based Image Analysis for Attribute Assignment in Bridge 3D Modeling	Asst. Prof. Tatsuro Yamane
5	E0025	Revolutionizing Freeform Concrete Shells with Geodesic Grids and Fabric Formwork	Mr. Chonlanut Boonmadam



**Session:** 3B-4

Topic: Symposium - Artificial Intelligence in Structural Health Monitoring

**Room:** Sukhothai III**Chair:** Assoc. Prof. Jun Hu

No.	Paper ID	Paper Title	Presenter
1	O0008	Real-time Traffic Load Monitoring Framework Based on Deep Learning Model and Statistical Regularities of Vehicle Shape Prior Information	Mr. Boqiang Xu
2	O0002	Comparative Analysis of Deep Learning Segmentation Algorithms in Concrete Damage Detection for Building Inspection Applications	Prof. Tamon Ueda
3	O0005	Hybrid Supervised Model Based on Sample Quality Assessment for Rotating Machinery Fault Diagnosis with Limited Labelled Data	Assoc. Prof. Jun Hu
4	O0006	A Novel Double-Stage Partial Adversarial Network in Cross-Domain Fault Diagnostics	Prof. Kejia Zhuang
5	O0007	Using Supervised Variational Autoencoders to detect Aerodynamic Erosion in Wind Turbines	Mr. Kiran Daniel Bacsa
6	O0001	Dynamic Response Reconstruction with Neural Network-Assisted Kalman Filtering	Ms. Yiqing Wang

**Session:** 3B-5

Topic: Advancements in Structural Analysis and Design

**Room:** Phayao I**Chair:** Assoc. Prof. Rami Eid

No.	Paper ID	Paper Title	Presenter
1	E0049	Enhancing shear connectors behavior of precast concrete walls with embedded shear keys	Dr. Warakorn Tantrapongsaton
2	E0031	Propagation and attenuation characteristics of ground vibrations due to construction activities	Ms. Thilini Asanka Rajapaksha
3	E0014	Multi-state Analysis and Control for Multi-Petal Supertall Buildings under Construction	Prof. Xin Zhao
4	E0015	Comparison of Multiple Vibration Reduction Devices for super-tall buildings under wind excitation	Prof. Xin Zhao
5	E0038	Analytical study on load sharing ratio and stress distribution of structural strand rope	Mr. Kaito Terao

**Session:** 3B-6

**Topic:** Resilient structures and design for natural disasters and extreme events

**Room:** Phayao II

**Chair:** Assoc. Prof. Kaiming Bi

No.	Paper ID	Paper Title	Presenter
1	C0021	Observed amplified ground motion in Bangkok basin from recent moderate to large earthquakes	Assoc. Prof. Teraphan Ornthammarath
2	C0026	Development of multi-strut macro models for masonry infilled RC frames using machine learning techniques	Asst. Prof. Eknara Junda
3	K0005	Damage Index for Infill Walls in Reinforced Concrete Frames	Assoc. Prof. Sutat Leelataviwat
4	C0012	Redundancy-Data-Based Automated Optimization of a Supertall Structure by Viscously Damped Outriggers in a High Seismic Zone	Mr. Chornay Morn
5	C0027	The effects of friction coefficients on the performance behavior of triple friction pendulum base bearings	Assoc. Prof. Siti Aminah Osman
6	C0041	Engineering Documentation of Cultural Heritage Sites in Ayutthaya Historical Park, Thailand	Prof. Nakhorn Poovarodom
7	E0018	Study on Hybrid Testing Technologies of Nonlinear Reinforced Concrete Structure and Verification with Shaking Table Tests	Prof. Fu-Pei Hsiao

**END OF DOCUMENT**