

**AIJISA 2023: The 46th Symposium on Computer Technology of Information, Systems and Applications  
Program and Venue**

| Venue<br>Date          | Room1<br>(HALL)   | Room 2<br>(201+202)   | Room 3<br>(301+302)   | Room 4<br>(308)                                    |
|------------------------|---|---|---|--|
| Dec<br><b>7</b><br>Thu | <b>9:00-11:45</b><br>▼[OS-1] Design Science in Computational Intelligence and Architecture  | <b>9:00-10:30</b><br>▼XR 1<br><br><b>10:30-12:00</b><br>▼XR 2   | <b>9:00-10:30</b><br>▼BIM 1<br><br><b>10:30-12:00</b><br>▼BIM 2 | <b>9:00-11:00</b><br>▼Disaster prevention/Safety   |
|                        | <b>13:00-14:30</b><br>▼Monitoring/Sensing   | <b>13:00-13:45</b><br>▼XR 3<br><br><b>13:45-14:45</b><br>▼[OS-2] XR/Media 2023 in Architecture/Urban Fields | <b>13:00-14:45</b><br>▼Architectural Planning                   | <b>13:00-14:30</b><br>▼Algorithmic Design          |
|                        | <b>15:00-15:10</b><br>▼Opening Address<br>Yuichi Shimokawa<br><br><b>15:10-17:30</b><br>▼[Keynote-1] Generative AI: Revelations, frictions, and beyond...<br>Keynote speech: Seiji Yamada and Sota Misawa<br>Moderator: Narito Kurata and Naomi Matsunaga<br>Dialog coordinator: Yuichi Shimokawa<br><br><b>17:30-</b><br>Group Photo Session | /   |   |  |
| Dec<br><b>8</b><br>Fri | Interactive Presentation Preparation  | <b>9:00-10:30</b><br>▼AI 1  | <b>9:00-10:30</b><br>▼Urban Planning 1                          | <b>9:00-10:15</b><br>▼Environment/Equipment        |
|                        | <b>10:40-12:00</b><br>▼Interactive Presentation   | /   |   |  |
|                        | <b>13:00-14:30</b><br>▼Structure Optimization   | <b>13:00-14:30</b><br>▼AI 2   | <b>13:00-14:30</b><br>▼Urban Planning 2                         | <b>13:00-14:15</b><br>▼Architectural Social System |
|                        | <b>14:50-</b><br>Group Photo Session<br><br><b>15:00-17:30</b><br>▼[Keynote-2] Architecture, urbanism, and the future of AI utilization<br>Keynote speech: Shohei Ishikawa, Toshiki Hirano and Tatsuya Nakano<br>Introduction: Yuichiro Yamabe<br>Moderator: Satoshi Yamada<br><br><b>17:30-17:50</b><br>Award Ceremony<br>Closing Address    | /   |   |  |

## ● Full and Short Papers / Interactive Presentation

### ■ DAY1: Thursday, 7 Dec 2023 ■

#### ▼ Organized Session 1: Design Science in Computational Intelligence and Architecture

9:00-11:45 Room1 (HALL)

Chair: Toshiki HIRANO (the Univ. of Tokyo) and Akihiro

MIZUTANI (Toyoashi Univ. of Technology)

- 1 H33 Topology Design of Lattice Structures with Specified Deformations using Machine Learning  
○Tomoya MATSUOKA, Makoto OHSAKI and Kazuki HAYASHI
- 2 H22 Confidence Bound Generation from Data Points and Its Application to Equilibrium Analysis  
○Yoshihiro Kanno
- 3 H63 Structural Optimization Considering end state by Using Machine Learning of NN 5-layer 3-span model  
○Kazuma KOBAYASHI, Yohei YOKOSUKA
- 4 H16 Similarity of Architects Image Captured from Reviews -For Modern Architectures-  
○Nao TANIKAWA, Hiroki OCHI, Satoshi YAMADA
- 5 H39 A Study on Computer Technology Symposium Application of information systems to architectural design and engineering  
○Masaki HONJO, Satoshi YAMADA
- 6 H128 Relationship between Resolution and Spatial Awareness in VR space  
○Joonyoung KIM, Satoshi YAMADA
- 7 H04 Rigid body visibility analysis: describing invisibility by lattice extending isovist  
○Yuto MARUYAMA, Kei YASUDA, and Ken MIURA
- 8 H118 Addition Methods of Braces to Make Cubic Grids Rigid Considering Variations in Placement  
○Yuki KOBAYASHI
- 9 R13 Changes of Visibility of Buildings by Pedestrianization of MIDOSUJI Using 3D City Models  
○Ryunosuke MORI and Yuki KOBAYASHI
- 10 H59 Analysis and Comparison on Streetscapes Using 3D Isovist Invention of a mathematical program to compute un-similarities of visible regions  
○Daisuke WATANABE, Kentaro HONMA and Kotaro IMAI
- 11 H81 Effect of Relative Position of Opening and Viewpoint on Sense of Openness Basic Analysis Using VR  
○Kento MATSUI, Kentaro HONMA and Kotaro IMAI

#### ▼ Monitoring/Sensing

13:00-14:30 Room1 (HALL)

Chair: Yukiko YOSHIDA (Ibaraki Univ.)

- 12 H62 Does Natural Light Control in the Bedroom Improve the Awakening Quality?  
○Xiaorui WANG, Daisuke MATSUSHITA
- 13 H86 Development of Autonomous Time Synchronized Sensing System Enabling Measurement of Acceleration and Image  
○Narito Kurata
- 14 H73 A Study on Avoidance Prediction and Avoidance Regions Based on Pedestrian Avoidance Behavior Toward Micro-mobility in Single-Crossing Experiments  
○Hiroto SUNOUCHI, Tatsuto KIHARA, Kei SAITO, Hideaki TAKAYANAGI
- 15 H74 A Study on the Assessment of the Consistency between Spray-type Fragrances and New Interior Style of Living Space through Biological Information Measurements  
○Yui HORISHITA, Hiroto SUNOUCHI and Hideaki TAKAYANAGI
- 16 H90 Visualization of the Air Environment in the Office and Meeting room area and Experiment on Intellectual Productivity Evaluation using the SAP - JSBC  
○Kozo YAMAMOTO
- 17 H19 Method for Estimating Pedestrian Traffic and Speed in Stairwell Using Strain Sensors  
○KINOSHITA Yoshiro

#### ▼ XR 1

9:00-10:30 Room2 (201+202)

Chair: Yasushi IKEDA (the Univ. of Tokyo)

- 18 R17 Mapping Player Interaction with Virtual Reality Environment to Outline the Influence of Seen Arrangement of Elements on Movement. Towards extracting a Theory of architectural design for Virtual Spaces  
○Weam NUMAN, Haruyuki FUJII and Yuval KAHLON

- 19 R84 Facilitating Synchronous Remote Collaboration on On-site Architectural Design using Mixed Reality  
○Yuval KAHLON and Haruyuki FUJII

- 20 R110 Learning Modernism Heritage, Playing the Minecraft Game  
○Chia-Hui (Nico) Lo

- 21 H69 Development of tool for analyzing eye behavior for photorealistic VR spaces  
○Hirohiko NAKUI, Yuichi SHIMOKAWA

- 22 H32 Research On Utterance Characteristics When Observing Architectural Works In Classes Using VR  
○Ryoma KOBAYASHI, Yuichi SHIMOKAWA

- 23 H87 Time-series digital archive of construction process Development of educational tool for young engineers using 3D virtual tour  
○Yuichi SHIMOKAWA, Tatsuru SUDA, Takumi YANO, Hidehisa Nomura

#### ▼ XR 2

10:30-12:00 Room2 (201+202)

Chair: Eriko KITAMOTO (Kanagawa Institute of Technology)

- 24 H42 Combining 3D Models and Panoramic Images in VR Spaces Gathering of line-sight data and Visualization  
○Takuya Miyagawa, and Yuan MA

- 25 H10 Development of Laser Marking Support System Using Object Detection and Projection Mapping  
○Shingo KITANO, Shingo SONODA

- 26 H89 Digital Experience and IPD in the Web Metaverse  
○Tetsuya MAEDA

- 27 R30 Automatic Generation of Double Shed Roof & Full-length windows Buildings and Sun Light Simulation at Rooms of these 3D Building Models  
○Takahiro MURASE, Kenichi SUGIHARA and Zhenjiang SHEN

- 28 H127 Modeling Methods for Difficult-to-Model Objects in Photogrammetry  
○Kenichi IJIMA, Masaaki TSUJI, Kojin OTSUKA, Yusuke TANIWA, Hayato YAMAZAKI and Hiroto KISHIMOTO

- 29 H94 Development of a spatial verification tool using onsite AR For retail space planning  
○Norihiko KAWASUMI and Shogo UEMICHI

#### ▼ XR 3

13:00-13:45 Room2 (201+202)

Chair: Tetsuya MAEDA (TOYO CONSTRUCTION)

- 30 H31 Analysis of behavior and community in a reality-linked metaverse Comparison of real world and metaverse and investigation of community impact for classrooms  
○Shoya KOIZUMI, Satoshi YAMADA

- 31 H41 A Study on VR landscape presentation system for street planting planning by Interactive Genetic Algorithm  
○So SHOJI, Yuichiro YAMABE

- 32 H114 Study on the Transformation of Experiences in Urban Spaces through Visualization Systems  
○Naoki TAGAWA, Hitoshi MURAI, Taihei SHII and Keisuke TOYODA

#### ▼ Organized Session 2: XR/Media 2023 in Architecture/ Urban Fields

13:45-14:45 Room2 (201+202)

Chair: Yasunobu ONISHI (Kumamoto Univ.)

- 33 H60 Applications and Prospects of Virtual and Mixed Reality in Architecture and Urbanism 2023 (1)  
○Gaku SASADA, Yukio ANDO, Jun UEDA, Yasunobu ONISHI, Eriko KITAMOTO, Narito KURATA, Suisho SAKATANI, Shunta SHIMIZU, Tomohiro FUKUDA, Mai FUJITA, Naomi MATSUNAGA and Eisuke MITSUDA

- 34 H61 Applications and Prospects of Virtual and Mixed Reality in Architecture and Urbanism 2023 (2)  
○Gaku SASADA, Yukio ANDO, Jun UEDA, Yasunobu ONISHI, Eriko KITAMOTO, Narito KURATA, Suisho SAKATANI, Shunta SHIMIZU, Tomohiro FUKUDA, Mai FUJITA, Naomi MATSUNAGA and Eisuke MITSUDA

## ● Full and Short Papers / Interactive Presentation

- 35 H09 Comparative Study of Neural Radiance Fields and Photogrammetry for Shape Determination of Steel Structures  
○Shinya OSAWA, Tadaaki SAITO and Naoto HARA
- 36 R113 Multi-Agent Evacuation Simulator Considering Thermal Smoke Flow and Visualization on Multi-User Virtual Reality  
○Daiki KIDO, Kazuhiro AMANO, Osamu IMAZEKI, and Rieko KONDO

### ▼ BIM 1

9:00-10:30 Room3 (301+302)

Chair: So SUGITA (Hiroshima Institute of Technology)

- 37 H45 Development and Practice of Remote Presence based on CDE  
○Hajime NOGUCHI, Akio ARAKAWA, and Kozo NOSE
- 38 H47 Development and Practice of a Pre-confirmation Method Using CDE Document Confirmation by Electronic Files  
○Akio ARAKAWA, Shojiro TAIRA and Kozo NOSE
- 39 H46 Practice and Development of a Pre-confirmation Method Using 3D Images Visual Confirmation and Measurement Confirmation by 3D images  
○Akio ARAKAWA, Hajime NOGUCHI and Kozo NOSE
- 40 R12 A New Methodology on BIM-FM Data Integration Using Uniclass  
○Atsushi MORIWAKI, Masayuki ICHINOSE, Muneki IKEGAMI Masayuki OGATA, Alkhalaf HAITHAM and Hideaki SHIBATA
- 41 H115 A Study on the Construction of a BIM Model for the Maintenance and Management of Modern Heritage  
○Hiroto MASE, Yuki Kobayashi, and Kiminori NAKAZAWA
- 42 H122 Development of a Structural Analysis Integration System with Revit  
○Shodai FUNATSU, Shinnosuke FUJITA

### ▼ BIM 2

10:30-12:00 Room3 (301+302)

Chair: Yuji MATSUMOTO (Kyoto Institute of Technology)

- 43 R105 Development of a Support System for Indoor Lighting Considerations Using an Exploratory Process  
○Shogo UEMICHI, Norihiro KAWASUMI
- 44 H34 A Study on Self-Positioning Estimation of Cleaning Robots Using UWB and Construction of Digital Twin Using BIM Models  
○ku TANIGUCHI, Yuzuno SAKAMOTO, So SUGITA, Hiroshi SUGITA, Kozo OHTANI, Tomoki OHKIDO, Tomoya YAMAMI and Keita FURUYA
- 45 H68 Study on a Modular Coordination Support Method for Prefabricated Building using BIM  
○Genta KUROIWA and Yasunobu ONISHI
- 46 R112 Development of a layout planning method using BIM and point clouds focusing on ground height difference  
○Yoshihiro MATSUO and Yasunobu ONISHI
- 47 H116 Evaluation and Improvement of Inspection Support System for Public Housing Focusing on Selection of Defective Building Element to Improve Its Practicality Development of an inspection support system for public housing using BIM and cloud computing part2  
○Hideki HISATOMI and Yasunobu ONISHI
- 48 R78 Development of a Program to Support Emergency Temporary Housing with a Function of Reducing Types of Housing Unit  
○Tomoya NAGAFUCHI, and Yasunobu ONISHI

### ▼ Architectural Planning

13:00-14:45 Room3 (301+302)

Chair: Kentaro HONMA (the Univ. of Tokyo)

- 49 H92 A Smart Building Platform Development and Utilisation and Deployment Application collaboration and the role of building OS in making smarter buildings  
○Toshio NAGAFUNE, Yoshikane KOJIMA and Akiko KAWANO
- 50 H55 Multi-agent Systems as a Method of Analyzing Visual Relationships in Architectural Space  
○Yuki IIHAMA, Suisyo SAKATANI
- 51 H124 Potential Prospect Describes the prospect area that can be visible through windows from the architectural space  
○Kei YASUDA, Hiroki WADA and Ken MIURA
- 52 H58 Research on the relationship between (apparent size of

space × color preference) and visual desirability

○Takato USUI, Yuichi SHIMOKAWA

- 53 H70 Optimization of the Planar Covering Problem by the Minimum 2D Isovist Graph  
○Hideyoshi ODAWARA and Atsushi TAKIZAWA
- 54 H79 Characteristics of Gaze Behavior during Impression Evaluation of Hospital Interior Spaces  
○Hong Thai NGUYEN and Takuya OKI
- 55 R82 A Study on The Appropriate Value of LDK Space from The Viewpoint of The Arrangement of Living Furniture and The Behavior Ontology  
○Risa KAGAYA and Hideaki TAKAYANAGI

### ▼ Disaster prevention/Safety

9:00-11:00 Room4 (308)

Chair: Atsushi TAKIZAWA (Osaka Metropolitan Univ.)

- 56 R109 Withdrawal
- 57 H107 A Study on Evacuation Guidance Considering the Distribution of People Using MAS  
○Yuichiro YAMABE and Chihaya FUKUMURA
- 58 R23 Verification of the effect of damage information on disaster victims in need of rescue on disaster relief activities  
○Koki ASANO and Yuichiro YAMABE
- 59 R125 Study on the location of evacuation site guidance signs Multi-Agent simulation focusing on tourists without information  
○Daiki UENO, Toshifumi MAE Tadashi NAGAIE and Yuji MATSUMOTO
- 60 H27 Analysis and Proposal of Pre-disaster Recovery Planning in Nankai Trough Earthquake Tsunami Evacuation Special Reinforcement Area  
○Yuki MANE and Yuji KOBAYASHI
- 61 R36 Assessing the Impact of Disasters on Urban and Regional Structures and Identifying Issues The Case study on Saiki City, Oita Prefecture  
○Masaya NAGI and Yuji KOBAYASHI
- 62 H06 Demonstration Experiment on Information Transmission Using Signage Targeting condominiums  
○Katsuko HAMAGUCHI, Hajime KAMIYAMA
- 63 H07 Report on demonstration experiment of information transmission using signage in Shizuoka City and Hamamatsu City  
○Hajime KAMIYAMA

### ▼ Algorithmic Design

13:00-14:30 Room4 (308)

Chair: Shinnosuke FUJITA (The Univ. of Kitakyushu)

- 64 H97 Geometry classification of Japanese joinery Object classification by geometry features  
○Lynda ITATAHINE, Yosuke KOMIYAMA
- 65 H50 Procedural Processes of Curved Surface Generation and Member Placement for Wood Working by Multi-Axis CNC Milling Machine  
○Naoki TAGAWA, Azusa TAZUMI, Shoko IKEMOTO, Ryo SUMI and Tetsuya KOUNO
- 66 R05 Automatic Generation of Step-Shaped Building Models using a Polygon Dividing Method with a Set of Divided Quadrilaterals of Varying Story  
○Kenichi SUGIHARA, Zhenjiang SHEN and Takahiro MURASE
- 67 H77 Construction of Origami Teahouse with Paper as The Main Structure Using Digital Fabrication  
○Futa OBA, So SUGITA and Kota OKUGAWA
- 68 H119 A Generation of Frame Structure Based on Fractal Geometric Form Spatial frame based on Koch curve  
○Rei SATOU, Toshifumi MAE and Iasef Md RIAN
- 69 H20 Rigidity of Yoshimura cylinders with kerf-bending against a rigid body  
○Yuya ARAI, Satoshi YAMADA

■ DAY2: Friday, 8 Dec 2023 ■

### ▼ Interactive Presentation

10:40-12:00 Room1 (HALL)

Chair: Kiminori NAKAZAWA (Nihon Univ.) and Keita KADO

## ● Full and Short Papers / Interactive Presentation

- (Chiba Univ.)**
- 70** I01 Rigid body visibility analysis: describing invisibility by lattice extending isovist  
○Yuto MARUYAMA, Kei YASUDA, and Ken MIURA
- 71** I02 Virtual Simulation of Operating Bike Sharing System Consideration of the efficient bike sharing rebalancing plan assuming the characteristics of the city  
○Tatsuki ISHII, Junya ONOE, Mizuki NAKANO, Ryunosuke FUKUZAKI, Ryusuke KURIHARA, Shota INABA, Megumu TAKAHASHI, Hiroyasu ANDO, Hiroichi KAWASHIMA
- 72** I03 Tracking Workers in Crowded Environments Using Multiple LiDAR  
○Tomoki Ashiwa, Shogo Yamada, Ryota Narita, Manami Adachi, Kazuma Sekiguchi and Kenichiro NONAKA
- 73** I04 2.4-GHz Radio-Wave Attenuation of a Thatched Roof and a Metal-tiled Roof  
○Hyunsoo KIM, Sangyeop LEE and Shintaro FUKUDA
- 74** I05 Proposal for a new design method that takes advantage of mobility characteristics. Architectural Design in a Superfluous Society  
○Riku YONEMITSU, Satoshi YAMADA
- 75** I06 Proposal of a movable system for constructing a space that can be assembled instantly Examination on using this system for living space  
○Kanako OSHIMA, Satoshi YAMADA
- 76** I07 Using Content Generation AI in Design Studies  
○Tomohisa OMOTO, Satoshi YAMADA
- 77** I08 Proposal for a Design Generation System that Interactively Responds to Human Sound and Motion — Development and Application of Kinetic Space Design System —  
○Eriko KITAMOTO
- 78** I09 Combining 3D Models and Panoramic Images in VR Spaces Gathering of line-of-sight data and Visualization  
○Takuya Miyagawa, and Yuan MA
- 79** I10 Image color measurement system using ARUco markers  
○Shingo IKENOUE
- ▼ Structure Optimization**  
**13:00-14:30 Room1 (HALL)**  
**Chair: Toshifumi MAE (National Institute of Technology, Oita College)**
- 80** H11 Strain Prediction of Shell Structures by Machine Learning using Discrete Curvature  
○Kentaro HAYAKAWA and Makoto OHSAKI
- 81** H49 A Study on Optimal Design System for Wooden Buildings with Moment Resistance Joints Using Multi-purpose Genetic Algorithm  
○Sora INOSHITA, Yuichiro YAMABE
- 82** H91 Computational Morphogenesis of Twisting-Controlled Surfaces and Digital Fabrication Evaluation  
○Makiko SHIMIZU, Shinnosuke FUJITA
- 83** H93 Topology Optimization of Latticed Shells Solved as DC Programming Problem  
○Naoto OKUZONO, Shinnosuke FUJITA
- 84** H121 Computational Morphogenesis of Bending Active Shells with Curved Kerfing  
○Shinnosuke Fujita
- 85** H123 Optimization and load testing of masonry arch structures  
○Shinnosuke Fujita
- ▼ AI 1**  
**9:00-10:30 Room2 (201+202)**  
**Chair: Yuki KOBAYASHI (Osaka Metropolitan Univ.)**
- 86** R18 Fundamental Study on Automated Learning Data Generation and Knowledge Acquisition from Technical Documents  
○Hiroshi TSUNEKAWA
- 87** H108 Research on Historical Building Machine Learning for Objective Scenic Evaluations  
○Keisuke IWANO, M.R.Derbel and Nobuo MISHIMA
- 88** R85 Autonomous Drone Navigation Using Reinforcement Learning and BIM  
○Shotaro TAKAZOE and Kazuya SHIDE
- 89** H67 Floor Plan Clustering Using Visibility and GNN  
○Chika NAKADA, Yuhi MAEDA and Keita KADO
- 90** H65 A Study on Simulation of Wheelchair Motion by Deep Reinforcement Learning  
○Hikaru KANAZAWA and Keita KADO
- 91** H120 Analysis of Visual Atmosphere in Generative AI For the Shinsekai  
○Yugo UMEZU, Kota MURAYAMA
- ▼ AI 2**  
**13:00-14:30 Room2 (201+202)**  
**Chair: Hiroshi TSUNEKAWA (TAKENAKA Corporation)**
- 92** H80 Prediction of Nonlinear Mechanical Performances of Single-Layer Latticeshell Using Machine Learning  
○Yuma YABUUCHI, Shinnosuke FUJITA
- 93** H101 Prediction of Dynamic Response of 2D Frames Using Training Data with Multiple Span and Story Heights  
○Hiroshi NITTA, Shinnosuke FUJITA
- 94** H21 Automatic Generation of Drone Inspection Routes for Multiple Buildings Using Reinforcement Learning  
○Takumi SHIBATA, Satoshi YAMADA
- 95** H51 Research on abnormality detection while driving on various streets -Using future prediction by recurrent network-  
○Yudai NAKANO, Satoshi YAMADA
- 96** H129 Proposal of music recommendation using spatial images containing ambiguous impressions as a query  
○Kyo ISHIBASHI, Satoshi YAMADA
- 97** H53 Proposal of a method for analyzing color perception of images considering color contrast effects  
○Taisei KOYAMA, Satoshi YAMADA
- ▼ Urban Planning 1**  
**9:00-10:30 Room3 (301+302)**  
**Chair: Tadashi NAGAIE (National Institute of Technology, Oita College)**
- 98** H15 Where is “Working” Heading?  
○Atsuo ISHIKAWA, Akiko WATANABE, Fumie SUGANO, Yuri SHIMIZU, Koudai YOKOYAMA, Ami OGAWA
- 99** R25 Issues of Land Use in Suburban Interchange Location Characteristics and Regional Structural Changes  
○Tokki TSUBOTA and Yuji KOBAYASHI
- 100** R29 Grasping of Location Characteristics by the Classification of Hub Airports and Urban and Community Development by Utilizing Airports  
○Mayo KAWANO and Yuji KOBAYASHI
- 101** H37 A Study on Construction of Earthquake Damage Analysis Model by Linking GIS and CIM  
○Tetsuro SUZUKI, Kiminori NAKAZAWA, Yuta TABE, Takeshi SAKAMOTO, Masaki SHINADA, and Soetsu SUGIYAMA
- 102** H56 A Study on Urban Pattern Modeling for Sunlight Evaluation Using BIM and GIS  
○Yoshimi MATSUDAIRA, Kiminori NAKAZAWA
- 103** H57 A Study on Changes of Building Use in Kurashiki Riverfront Preservation Districts for Groups of Historic Buildings  
○Haruka FUJIWARA and Kiminori NAKAZAWA
- ▼ Urban Planning 2**  
**13:00-14:30 Room3 (301+302)**  
**Chair: Yuji KOBAYASHI (Oita Univ.)**
- 104** H103 Tourism Resource Potential of Former Bathhouse and Text Mining of its Elements  
○Makoto INOUE, Yukina ITOU
- 105** H126 Analysis of Travel Data and Cycle Port Installation Environment for Shared Cycle Business  
○Rikuto ITOU, Tadashi NAGAIE, Toshifumi MAE and Hana IKENAGA
- 106** H98 A Study on the Impression of Street View by the Comprehensive Design System Using urban models PLATEAU and VR  
○Yuto YASUI, Shun WATANABE
- 107** H99 Transformation of the Spatial Composition of the Castle Town from the Perspective of the Expansion of the Street Network  
○Kaisei MIYASHITA, Shun WATANABE
- 108** H72 Network analysis of the impact of portable mobility

introduction on station areas

○Naoki KURACHI, Kentaro HONMA

109 H106 Analyses on people's behaviors in urban spaces using SNS image data

○Yoshikazu SANO and Toshiyuki KANEDA

▼ Environment/Equipment

9:00-10:15 Room4 (308)

Chair: Masatoyo OGASAWARA (Tokyo Denki Univ.)

110 R96 Study on Window Opening and Closing for Natural Ventilation and Comfort in Office Environment

○Nanami SUGIMURA, Yukiko YOSHIDA, Toshiaki ICHINOSE, Yujiro HIRANO

111 H104 Residential Power Consumption Prediction Model Based on Power Monitoring Data Analysis

○Yujiro HIRANO, Yukiko YOSHIDA, Daisuke NARUMI and Tetsuji SATO

112 H100 The impact of urban aggregation on the introduction of distributed energy systems

○Amara TAKASUGA, Shun WATANABE

113 R64 Research of Rainfall Event during the Artificial Flooding at Bicchutakamatsu Castle in Sengoku Periods

○Yoshitami NONOMURA, Shito TERAMAE and Haruchika HAGIWARA

114 H95 Multi objective optimization of shape and topology for continuum shell considering environmental and structural performance

○Ryusei KOBAYASHI, Shinnosuke FUJITA

▼ Architectural Social System

13:00-14:15 Room4 (308)

Chair: Kazuya SHIDE (Shibaura Institute of Technology)

115 H28 Simulation using network process method for steel frame fabrication process planning ~Towards implementation~

○Satoru FURUKAWA, Tomohiro YOSHIDA, Chi NAIYUAN, Tsuneo KAKUTA, Shuzo FURUSAKA

116 H83 Research on the secondary use of architectural drawing information in the facility management phase —Using information extraction from 2D drawing data and coordination with the facility management database—

○Ryo MATSUZAWA, Kyouhei HAKATA, Ryuichi ISHIKAWA, Chisei CHIN, Hitoshi MURAI and Tomonari YASHIRO

117 R03 Development of Function Related to Items Management Combining NFC Tag Reading and Building Information Modeling

○Michio MATSUBAYASHI

118 H54 The guide for Creation and Utilization of BIM Models in the Maintenance and Management of Public Rental Housing

○Koji KATAYAMA, Hidekazu FUJIMOTO and Katsuyoshi WATAKABE

119 H35 Development of workplace accident prediction system for construction sites

○Youdou NAKA, Masanori NAKAGAWA, Yoshiki FUJIWARA, Hideo KITAHARA, and Michihiko OKAMOTO

R: Full Paper / H: Short Paper / I: Interactive Presentation