The 42ⁿᵈ Symposium on Computer Technology of Information, Systems and Applications (AIJISA 2019)

https://aijisa.org/2019/

Architectural Institute of Japan
Research Committee on Information Systems Technology

▮—Architectural Regenesis—▮

In order to discuss new possibilities of IT in architectural, constructional, urban and environmental fields, AIJISA 2019 is held. The symposium includes keynote lectures and dialogues (AI & Design (in China), Robotics & i-Construction, Human and Building Augmentation), a number of research and development, and practical design presentations of full and short papers etc. The young presentation award and interactive presentation (poster and demonstration) starts from this year.

Date —— December 12 (Thu) and 13 (Fri), 2019

Venue —— AIJ Building (26-20, Shiba 5-chome, Minato-ku, Tokyo, 108-8414, JAPAN)

Registration fees ——

	AIJ member	Non-member	Student
1) with Proceedings DVD	JPY 8,000	JPY 9,000	JPY 5,000
2) without Proceedings DVD	JPY 3,000	JPY 4,000	JPY 1,000

※You can attend all the programs for two days by payment.
※The presenter must pay by 1).
※Please attend the award ceremony on Dec 13, 17:30-17:50 if you are eligible for the Young Presentation Award.
※A special tote bag will be given on a first-come-first-served basis for the registrants by 1).

Registration / Capacity — Official Web (We welcome the onsite registration at the AIJISA 2019 if registrants does not reach the capacity by online registration) / 200 persons https://aijisa.org/2019/registration/

Contact —— Architectural Institute of Japan
Ms. Fushimi   TEL +81-3-3456-2057

Program Overview
1. Opening Address
WATANABE Shun (University of Tsukuba)
Date / Venue —— Dec 12 (Thu) 14:40-15:00 / AIJ Hall

2. Full & Short Papers /Interactive Presentation
Date —— Dec 12 (Thu) and 13 (Fri)
Venue —— AIJ Hall, Room 201-202, 301-302, 308

① Organized Session (OS)
❶ Design Science in Computational Intelligence and Architecture
❷ Virtual and Mixed Reality for Architectural and Urban Fields 2019
❸ Building Monitoring and Sensing Initiatives
❹ Discussing Various Ways of Architectural Information Education

② General Session
VR, MR, AR, BIM, GIS, AI, Parametric Design, Digital Fabrication and Construction, Architectural Planning, Optimization, Human Science and Monitoring

3. Keynote & Dialogue
<Sponsors> AppliCraft, A&A, APPLIED TECHNOLOGY, Autodesk, GRAPHISOFT, Kenchiku Shiryo Kenkyusha, KOZO KEIKAKU ENGINEERING, SOGO SHIKAKU, FORUM8, Fukui Computer holdings, U's Factory, Unity Technologies Japan

Youtube Live (Free) ▶ Access via https://aijisa.org/2019/

① AI & Design (in China), Robotics & i-Construction
[Simultaneous translation: EN – JP] ※
Chair: KO Kaon (Tokyo Univ. of Science)
Date / Venue —— Dec 12 (Thu) 15:00-17:30 / AIJ Hall
Coordinator —— NAKAMURA Ko (Mosaic Design Inc.)

Ⓐ **Artificial Intelligence and Design in China**
Kostas Terzidis (Prof., Tongji University's College of Design and Innovation)

Ⓑ **Advanced Construction and Building Technology: Automation, Robotics, Services**
Thomas Bock (Director, Technische Universitat Munchen / Project Prof., Univ. of Tokyo)

② Human and Building Augmentation
Chair: KADO Keita (Chiba Univ.)
Date / Venue —— Dec 13 (Fri) 15:00-17:30 / AIJ Hall
Coordinator —— SHIMOHIGOSHI Taketo (A.A.E.)

Ⓐ **Superception for Perceptual Engineering**
KASAHARA Shunichi (Sony Computer Science Laboratories)

Ⓑ **Sharing Body Experiences with Robots, Virtuals, and Humans: BodySharing**
TAMAKI Emi (H2L Founder)

4. Award Ceremony & Closing Address
FUKUDA Tomohiro (Osaka Univ.) & NAKAZAWA Kiminori (Nihon Univ.)
Date / Venue —— Dec 13 (Fri) 17:30-17:50 / AIJ Hall

5. Networking
【Group Photo Session】 Please gather: Dec 12 17:30 at AIJ Hall inside / Dec 13 14:45 at Court in AIJ Bldg.

【Social Gathering】
Date / Venue – Dec 12 (Thu) 18:00-20:00 / Hibiya Bar Mita-ten
Fee / Capacity—Regular JPY 4,000, Student JPY 3,000 / 60 persons (first-come-first-served basis)

【Coffee Break】
Date / Venue – Dec 13 (Fri) 10:40-11:00 / AIJ Hall foyer
【SNS】
Twitter ▶ https://twitter.com/aijisa2016   Hashtag ▶ #AIJISA
Facebook ▶ https://www.facebook.com/aijrcist/
Taking photos and uploading them on the official website and SNS

◎If you would like to buy the past AIJISA proceedings on DVD (2014-2017), please order by e-mail to books@aij.or.jp or AIJISA 2019 reception desk directly: JPY 5,000/DVD (including tax, Shipping fee is required separately)

※ Bring your smartphone or tablet with your earphones to listen to simultaneous translation (EN-JP). Access official website (https://www.aijisa.org/2019/) and poster onsite to know how to set-up the system.

●Full and Short Papers / Interactive Presentation

▼Virtual, Mixed and Augmented Reality

9:40-12:00······AIJ Hall··

Chair: FUJII Takeshi (Ritsumeikan Univ.)

1 H92 Preliminary Study on Visualization of Building Standard Laws by HoloLens: A Case Study in Kanazawa City
○SHEN Zhenjiang (Kanazawa Univ.), SUGIHARA Kenichi, WU Teng, TENG Xiao

2 H09 Smoothing of Point Cloud for Generating VR Video Image of Earthquake Damage ○YAMASHITA Takuzo (NIED)

3 H55 An Algorithmic Optimization Model for High-Density Urban Settings ○Mohammed Aqil CHEDDADI (Keio Univ.), IKEDA Yasushi

4 H42 Verification of the Effect of Improving Understanding of Architecture by VR: Through Case Study of Kindergarten Architecture and Guest House Architecture
○USHIYAMA Yoshihiko (Kanazawa Inst. of Tech.), SHIMOKAWA Yuichi

5 H64 Linking Patterns between VR and Reality which Affects Impression of VR Space: Taking a Bath with VR
○YOKOTA Fumiko (Ritsumeikan Univ.), MURAKAMI Masaya, YAMADA Satoshi

6 H56 Virtual Reality Design Based on Comparative Verification About Perception and Impression for Height in Reality and Virtual Reality Space: A Research on Space Design for Virtual Reality Architectural Theory
○MURAKAMI Masaya (Ritsumeikan Univ.), YOKOTA Fumiko, YAMADA Satoshi

7 H35 Consideration on Continuous Utilization of 3D-Data in Construction Project and Urban Development
○TANOUE Yasunari (Panasonic Corp.), OISHI Tomohisa

▼Building Information Modelling

9:40-12:00······Room 201-202································

Chair: KAWASUMI Norihiro (Wakayama Univ.)

8 H07 Use of Building Information Models to Search for Elements Similar to Those Causing Water Leak – Part 2
○MATSUBAYASHI Michio (National Inst. of Tech., Kushiro Col.)

9 R28 Study on Temporary Housing Layout Planning Using an Interactive Planning Method Based on BIM
○FUKUOKA Ryota (Kumamoto Univ.), ONISHI Yasunobu

10 H39 Study on Design Efficiency Improvement Utilized Algorithm Design and BIM: Study on Design Support by Structural Optimization Software ○TAKEUCHI Takahiro (Yasui Architects & Engineers), HAYASHI Shinya, TOIZUMI Kano, SHIGETO Kazuyuki

11 R57 Study on the Automatic Modeling of Concrete Formwork Based on a Building Structure Model Using BIM
○MATSUO Satoshi (Kumamoto Univ.), ONISHI Yasunobu

12 H31 Utilization of BIM and CIM and Laser Surveying in the Field of Construction and Civil Engine
○OHNUKI Hisatoshi (ARMO), DOIHARA Izumi, MORIGUCHI Tomoaki, KODAMA Takashi, WATANABE Yoshinao

13 H96 Integration of BIM and IoT for Building Maintenance Management ○KURATA Narito (Tsukuba Univ. of Tech.), KONISHI Takahiro, YAMAOKA Hirofumi, KONDO Shinichi

14 R80 A Study on Design Process Visualization with Meeting Minutes Analysis: Focusing on the Kasumigaseki Building Committee's Decision-Making Process of the Curtain-Wall
○NAKAMURA Kentaro (MOKU-CHIN KIKAKU), GONDO Tomoyuki

▼Human Science and Monitoring

12:50-14:30······Room 201-202································

Chair: YAMABE Yuichiro (Kobe Univ.)

15 H99 Neighborhood's Sentiment Cloud: Visualization of Leisure Through Text Analysis
○Danilo Eidy MIURA (Univ. of Tokyo), MIYAHARA Shunsuke

16 H59 Estimating Number of Seated Persons Using Thermopile Array Sensor ○OGATA Hiroki (Kumamoto Univ.), ONISHI Yasunobu, NAKAMA Yuki, SHIGETO Kazuyuki, HATAMIYA Shohei

17 R83 A Study on Relationship Between Visual Information Acquisition and Pedestrian Behavior
○FURUKAWA Takaaki (Tokyo City Univ.), TAKAYANAGI Hideaki, YAMADA Shogo, KIHARA Tatsuto

18 R93 An Experimental Study on the Effect of Geographic Location Sharing Information Using Application for on Foot Evacuation
○YAMAZAKI Chihiro (Kanazawa Univ.), IKEMOTO Toshikazu, OGAWA Fukutsugu, TAKATA Yoshihiro, SERIKAWA Yuko, MIYAJIMA Masakatsu

19 H32 Application of Human Computer Interaction to the Field of Architectural Design: Conservation and Reproduction of the Handwork in the Field of Architecture
○KOJIMA Naoyuki (Ritsumeikan Univ.), YAMADA Satoshi

【Organized Session I】
▼Design Science in Computational Intelligence and Architecture

9:40-12:00······Room 301-302································

Chair: FUJII Haruyuki (Tokyo Inst. of Tech.)

20 H04 Optimization for Large-Scale Frames Based on Machine Learning for Feature Analysis of Placement of Braces of Small-Scale Frames
○SAKAGUCHI Kazuma (Kyoto Univ.), OHSAKI Makoto, KIMURA Toshiaki

21 H06 On Lagrange Duality for Topology Optimization Under Frictionless Contact ○KANNO Yoshihiro (Univ. of Tokyo)

22 H41 Construction of Open Source Computational Morphogenesis Environment on Grasshopper Using GH_Cpython and OpenSeespy
○FUJITA Shinnosuke (Univ. of Kitakyushu)

23 R50 Between Centrality Analysis of Street Networks Considering Travel Costs ○KITAMOTO Eriko (Ritsumeikan Univ.), YAMADA Satoshi, MUNEMOTO Shinsaku, OIKAWA Kiyoaki

24 H16 A Methodology of Making Uniform Space Filling Rigid by Adding Unit Solid ○KOBAYASHI Yuki (Osaka City Univ.)

25 R43 A Basic Study on Description of Ambiguity of In-Out Using Deep Learning: Where the Classifier that Reads Visible Regions Fails in Discrimination? ○YASUDA Kei (Kyoto Univ.), KUCHIBA Yuta, MIURA Ken

26 H97 Use and Deviation in Design Activities
○NAGASAKA Ichiro (Kobe Univ.)

▼Parametric Design

12:50-14:30······Room 301-302································

Chair: TAKIZAWA Atsushi (Osaka City Univ.)

27 H67 Construction of Design Support Platform in Visual Programming Environment: -Part 1- Concept and Organizational Expansion
○SATAKE Hiroyoshi (Shimizu Corp.), UEDA Jun, MIURA Daisaku

28 H68 Construction of Design Support Platform in Visual Programming Environment: -Part 2- Development of Individual Functions ○MIURA Daisaku (Shimizu Corp.), SATAKE Hiroyoshi, OHTA Nozomu, YAGAWA Akihiro, MAKI Shintaro, AMARI Takehiro

29 H48 Development of Lighting Design Simulator Using Parametric Method
○KAWASUMI Norihiro (Wakayama Univ.), INADA Yushi, NAKAO Shunsuke

30 H14 An Curved-Folding Algorithm to Adapt to the Freeform Surface: Design and Fabrication
○Hong-Cing TUNG (National Chiao Tung Univ.), Pei-Hsien HSU

31 H78 A Tool for Designing with Visual Algorithms
○Andrew I-kang LI (Kyoto Inst. of Tech.) and Rudi STOUFFS

▼Artificial Intelligence

9:40-12:00······Room 308································

Chair: SUGITA So (Hiroshima Inst. of Tech.)

32 R05 Seismic Attenuation Model Based on Data-Driven Approach: Numerical Examples for the Kyushu District in Japan
○KANEKO Kensaku (Tokyo Inst. of Tech.), IWASAKI Tomohiro, NOBATA Arihide

33 R82 Estimation on Response and Damage of Multistory Structures Caused by Earthquakes Using Hierarchical Neural Network
○YOKOI Shuhei (Kobe Univ.), TANI Akinori, YAMABE Yuichiro

34 R75 A Fundamental Study on Pedestrian Flow Control Using Deep Reinforcement Learning ○TSUNEKAWA Hiroshi (Takenaka Corp.)

35 H25 Automatic Generation Method of Building Mask Images by Using the 3D Model with Aerial Photograph for Deep Learning: Toward authentic optimal placement system of outdoor loudspeaker for communication of disaster prevention information
○IKENO Kazunosuke (Osaka Univ.), FUKUDA Tomohiro, YABUKI Nobuyoshi

36 H27 Deep Learning Model for Predicting Space Evaluation by Estimating Depth Information Using Omnidirectional Images
○KINUGAWA Hina (Osaka City Univ.), TAKIZAWA Atsushi

37 H61 Artistic AI Reflect the Design of any Design Source in the Simple Model
○IKENOUE Shingo (Ritsumeikan Univ.), OONO Kotaro, YAMADA Satoshi

38 H66 Systematization of Generative Design AI According to Purpose
○ONO Kotaro (Ritsumeikan Univ.), IKENOUE Shingo, YAMADA Satoshi

▼Geographic Information System
12:50-14:30······Room 308···
Chair: KITAMOTO Eriko (Ritsumeikan Univ.)

39 H22 A Study on Landscape Information Modeling Using BIM
○HOSOI Daisuke (Nihon Univ.), NAKAZAWA Kiminori, KOBAYASHI Shin, TORIGATA Yuki

40 H73 A Study on the Characteristics of a Castel-Town Using 3D GIS: The Reconsidering of a Method for Landscape Design of the Matsumoto Castle-Town ○YUDASAKA Miharu (Nihon Univ.), NAKAZAWA Kiminori

41 R37 Straight Skeleton Computation Optimized for Automatic Generation of 3D Roof Model
○SUGIHARA Kenichi (Gifu Kyoritsu Univ.), SHEN Zhenjiang

42 H71 Study on Pedestrian Circulation Around Railway Station Using Pedestrian Network: Case Study Around Saitama Prefecture Omiya Railway Stations
○HASEGAWA Jun (Univ. of Tsukuba), WATANABE Shun

43 R38 Study on Land Use Diversion in Central Urban Area of Provincial City: A Case Study of Parking Lot in Kumamoto City
○FURUSAWA Eiko (Kumamoto Univ.), HOMMA Riken

■DAY2: Friday, 13 Dec 2019■

【Organized Session II】
▼Virtual and Mixed Reality for Architectural and Urban Discipline 2019
9:00-10:40······AIJ Hall···
Chair: ONISHI Yasunobu (Kumamoto Univ.)

44 H19 Integration of Real-Time Video Communication and Semantic Segmentation over the Internet Toward Dynamic Occlusion Handling in Mobile Mixed Reality for Landscape Simulation
○KIDO Daiki (Osaka Univ.), FUKUDA Tomohiro, YABUKI Nobuyoshi

45 H26 Development of a Telepresence System for Sharing 3D Physical Objects: Improving Visibility of Virtual Objects by Increasing the Density of Real-Time Point Clouds
○ISHIKAWA Daichi (Osaka Univ.), FUKUDA Tomohiro, YABUKI Nobuyoshi

46 H21 Development of a Browsing Support System for Building Operations and Maintenance Information Using MR Device
○NAKAMA Yuki (Kumamoto Univ.), ONISHI Yasunobu

47 R23 Study on Supporting the Owner's Decision Making in Design Meetings Using Virtual Reality
○KAMATA Aoi (Kumamoto Univ.), ONISHI Yasunobu

48 R24 Study on the Method of Displaying Facility Operations and Maintenance Information Using VR and Motion Capture
○MATSUMURA Tatsuki (Kumamoto Univ.), ONISHI Yasunobu

▼Interactive Presentation
11:00-12:00······AIJ Hall···
Chair: Tomohiro FUKUDA (Osaka Univ.)

49 Z109 A Project on Computational Design Architecture Using Voronoi Division: BIM Project Through Design, Fabrication, Construction
○ SEYAMA Mitsuhiro (Takenaka Corp.), TANAKA Seiji

50 Z105 HoloDesigner: A Mixed Reality Tool for On-site Interactive 3D Visualization of Design Object
○Yuze DAN (Kanazawa Univ.), SHEN Zhenjiang

51 Z104 Acquisition of Gaze Points in Real Space by 360° Image and Eye Mark Recorder
○MIURA Ken (Kyoto Univ.), YASUDA Kei, MIURA Ken

52 Z108 A Study on Preserving of Historic Buildings Utilizing Building Information Modeling
○SHIMADA Yuta (Nihon Univ.), NAKAZAWA Kiminori

53 Z02 A Study on Smart Agriculture and Urban Design
○TOMIYAMA Syunki (Nihon Univ.), ENDO Haruki, NAKAZAWA Kiminori

54 Z106 Innovations in Architecture and Technology to Enhance the Society: Role of 3DVR, BIM and CIM
○MATSUYAMA Hiroto (Forum8), Shyam sunder SIRIMALLA

55 Z100 Development of Wooden Chair Design Method Utilizing Digital Fabrication ○MIZUTANI Akihiro (Toyohashi Univ. of Tech.), NARA Syohei, MAEGAWA Kanta

56 Z102 Development of Mass Customization System in Consideration of Kansei ○NAKAMURA Mizuki (Hiroshima Inst. of Tech.), SUGITA So

57 Z107 Mounting and Application of Painting Tool Used in VR Using UE4 ○UEHARA Ryosuke (Kyoto Univ.), MIURA Ken, YASUDA Kei

58 Z103 Development of a Telepresence System for Sharing 3D Physical Objects: Sharing Real-Time Point Clouds Between Multi Users by Using Mixed Reality
○ISHIKAWA Daichi (Osaka Univ.), FUKUDA Tomohiro, YABUKI Nobuyoshi

▼Optimization (1)
9:00-10:40······Room 201-202···
Chair: TANI Akinori (Kobe Univ.)

59 H51 Optimal Design of Steel Pipe Piles by Metaheuristic Method
○MORIMOTO Yoshiya (Univ. of Kitakyushu), FUJITA Shinnosuke

60 H52 Numerical Experiments on Equilibrium Analysis of Structures by Gradient Methods
○FUJII Fumito (Univ. of Kitakyushu), FUJITA Shinnosuke

61 H33 Shape Optimization for RC Spatial Structure Considering Rebar Constructability ○KIMURA Toshiaki (Kyoto Univ.)

62 H85 Dynamic Characteristics Identification of Non-Linear Structures Using Detailed Finite Element Analysis
○FUJIWARA Jun (NIED), OHSAKI Makoto, MIYAMURA Tomoshi

63 H18 Optimizing Evacuation and Return Routes on Tsunami Disaster Caused by Nankai Trough in Osaka City
○TAKIZAWA Atsushi (Osaka City Univ.), KAWAGISHI Yutaka

【Organized Session III】
▼Building Monitoring and Sensing Initiatives
9:00-10:40······Room 201-202···
Chair: SHIRAISHI Michihito (Shimizu Corp.)

64 H13 A Comparative Experiment and Information Infrastructure for Performance Evaluation of Various Indoor Positioning Systems
○IGARASHI Yuya (Shimizu Corp.), YAMAZAKI Motoaki, SHIRAISHI Michihito

65 H20 Frost Deterioration Monitoring of Concrete Using Optical Fiber Sensor
○HAYANO Hiroyuki (Taiheiyo Cement Corp.), SHIRODE Shinya, SEKINE Mariko

66 H62 Earthquake Response Monitoring by Video Analysis Using Open Source Hardware and Open Source Software
○TANI Akinori (Kobe Univ.), KAWATE Koichiro, YAMABE Yuichiro

67 R81 Research on Behavior Sensing in Houses Using Various Sensors: A Study on Behavior Detection Performance in Houses Adding Air Quality Sensor
○SHIMADA Tatsuki (Kobe Univ.), TANI Akinori, YAMABE Yuichiro

▼Architectural Planning
9:20-10:40······Room 301-302···
Chair: MATSUMOTO Yuji (Kyoto Inst. of Tech.)

68 H63 Proposal and Case Study of the Openness Analysis Index of Area Using Tool for Analyzing Geometric Appearance Feature
○HIROSE Hiroki (Kanazawa Inst. of Tech.), FUKUMOTO Daisuke, SHIMOKAWA Yuichi

69 H95 A Study on the Visibility and Openness of Landscape Components in the Sequence Landscape When Exiting the Station
○FUJII Takeshi (Ritsumeikan Univ.), HIGASHIYAMA Kouhei

70 R44 Supporting Method for Formulation and Operation of Rule of Landscape's Color by Utilizing Residents' Evaluation
○KINOSHITA Yoshiro (Nippon Inst. of Tech.)

71 H36 Proper Arrangement of AED and Sign Consiger that Uncertainty of Doing First Aid by Non-medical Workers
○NAKASHIMA Masaki (Ritsumeikan Univ.), YAMADA Satoshi, IWATA Shinnichiro, EGAWA Kana

▼Optimization (2)
13:00-14:20······Room 301-302···
Chair: OHSAKI Makoto (Kyoto Univ.)

72 R03 Machine Learning-Based Control Design of Dynamic Interaction Systems with Nonlinearity
○KANEKO Kensaku (Tokyo Inst. of Tech.)

73 H79 Estimation Method for Wooden Frame Structure and Seismic Performance to Wooden Frame Residential House: Algorithm to Generate Floor Plan and Compress the Amount of the Wall Volume Regulation Calculations
○HIRAKAWA Hideki (ArchiInnext), UEMATSU Takeyoshi

74 R29 Shape Optimization of the Evaporative Cooling System for Pavement Block Subjected to Maximum Water Retaining Capacity

○NISHIMURA Toku (Kanazawa Inst. of Tech.),
TONE Kazumasa, MARUI Motofumi

75 R90 The Study of Optimization of Timetable and Classroom Layout in Junior High School with Departmentalized Classroom System Using GA and MAS
○FUJIKAWA Hiroki (Kobe Univ.), YAMABE Yuichiro, TANI Akinori

▼Digital Fabrication and Construction

9:00-10:40······**Room 308**···

Chair: MIZUTANI Akihiro (Toyohashi Univ. of Tech.)

76 H08 A Study on the Way of Prediction for Rough Construction Cost in the Early Stage of the Project Using Neural Network Techniques
○KATO Yasumasa (NIHON SEKKEI), ITO Kazuyoshi, MURASE Hiroyuki

77 H30 Analysis and Survey of Design Decision Making Process in Steel Production Process
○FURUKAWA Satoru (Mihama Steel Logistics), YOSHIDA Tomohiro, CHI Naiyuan, KAKUTA Tsuneo, OKAMOTO Hiroyuki, FURUSAKA Shuzo

78 H74 Adaptive Robotic Carving by Vibration Chisel in Japanese Traditional Wooden Architecture's Sculpture Part Manufacturing
○OTANI Seiki (Chiba Univ.), NAKAMURA Yusuke, FURUSHO Genki, KADO Keita, HIRASAWA Gakuhito

79 H87 Availability Scrutiny of 5-Axis Machine Through Folly Production
○FURUSHO Genki (Chiba Univ.), YOSHIOKA Naoki, Randi HANTORO, OTANI Seiki, NAKAMURA Yusuke, KADO Keita, HIRASAWA Gakuhito

80 H11 Mapping of Similar Buildings Based on Structural Design Database
○KINOSHITA Takuya (Takenaka Corp.), KAWAKAMI Takuma, KAWASHIMA Naoki, TANIZAWA Riichi

【Organized Session IV】
▼Discussing Various Ways of Architectural Information Education

12:30-14:30······**Room 308**···

Chair: MATSUBAYASHI Michio (National Inst. of Tech., Kushiro Col.)

81 H65 A Study on Project Based Learning by Fabrication Truck
○NAKAZAWA Kiminori (Nihon Univ.), KINOSHITA Tetsuhito, MITSUI Kazuo

82 H54 Introduction of Algorithm Education Using VBA to Design
○MAE Toshifumi (National Inst. of Tech., Oita Col.), MATSUMOTO Yuji

83 H60 A Method of Making Building Scale Model Using Information Technology for Spatial Perception Education of Visually Handicapped
○ONISHI Yasunobu (Kumamoto Univ.), FUKUOKA Ryota

84 H70 Practice of Bioclimatic Design Education Using BIM: Introduction of Environmental Simulation Techniques in Architectural Design Education
○MORIYA Yasuhiko (Tokyo Polytechnic Univ.), KIMURA Takeshi

85 H86 Practice of Architecture Information Education that Transverse Between Architecture and Manufacturing
○SUGITA So (Hiroshima Inst. of Tech.)

86 H91 Promotion of Interdisciplinary Co-Creation with a Focus on xR Technology
○SHIMOKAWA Yuichi (Kanazawa Inst. of Tech.)

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

AIJISA 2019: The 42nd Symposium on Computer Technology of Information, Systems and Applications

Program and Venue

Venue / Date		#1 (AIJ Hall)	#2 (Room 201-202)	#3 (Room 301-302)	#4 (Room 308)
Dec **12** Thu	**A M**	**9:40-12:00** ▼Virtual, Mixed and Augmented Reality	**9:40-12:00** ▼Building Information Modelling	**9:40-12:00** ▼OS-I Design Science in Computational Intelligence and Architecture	**9:40-12:00** ▼Artificial Intelligence
	P M	**14:40-15:00** Opening Address WATANABE Shun (University of Tsukuba) **15:00-17:30** Keynote & Discussion "AI & Design (in China), Robotics & i-Construction" - Artificial Intelligence and Design in China: Kostas Terzidis - Advanced Construction and Building Technology: Automation, Robotics, Services: Thomas Bock - Coordinator: NAKAMURA Ko **17:30** Group Photo Session (AIJ Hall)	**12:50-14:30** ▼Human Science and Monitoring	**12:50-14:30** ▼Parametric Design	**12:50-14:30** ▼Geographic Information System
Dec **13** Fri	**A M**	**9:00-10:40** ▼OS-II Virtual and Mixed Reality for Architectural and Urban Fields 2019 **10:40-11:00** Coffee Break **10:40-11:00** Interactive Presentation	**9:00-10:40** ▼Optimization (1)	**9:20-10:40** ▼Architectural Planning	**9:00-10:40** ▼Digital Fabrication and Construction
	P M	**14:45** Group Photo Session (Court in AIJ Bldg.) **15:00-17:30** Keynote & Discussion "Human and Building Augmentation" - Superception for Perceptual Engineering: KASAHARA Shunichi - Sharing Body Experiences with Robots, Virtuals, and Humans: BodySharing: TAMAKI Emi - Coordinator: SHIMOHIGOSHI Taketo **17:30-17:50** Award Ceremony & Closing Address - FUKUDA Tomohiro (Osaka Univ.) & NAKAZAWA Kiminori (Nihon Univ.)	**13:00-14:20** ▼OS-III Building Monitoring and Sensing Initiatives	**13:00-14:20** ▼Optimization (2)	**12:30-14:30** ▼OS-IV Discussing Various Ways of Architectural Information Education

▼ : 76 full & short papers presentations [20 min. (15 min. presentation and 5 min. discussion)] which include organized sessions. 10 interactive presentations.