

## Room 3

### Session 3-3-1: OS03 Advanced system design and applications I

OS03-02 Accelerating Metamaterial Design: An Intelligent System for Tailored Mechanical Properties

Jipeng Cui, Liangchi Zhang and Yaoyu Wang

OS03-05 A method for evaluating design hypotheses certainty ensures evidence transparency

Yuga Suzuki, Y. Tsutsui, Y. Shimomura and A. Tsumaya

OS03-10 Evaluating novelty of design concepts based on information content

Riki Kobayahi, Yusuke Tsutsui and Akira Tsumaya

OS03-11 A Proposal of Power Operation Planning Method using Stochastic Programming and Integration with Production Planning , Daisuke Kokuryo, Toshiya Kaihara and Ayano Nishikawa

OS03-12 A Proposal of Production Planning Method Adapting to Customer Demand Fluctuations with Consideration of Advance Demand Information and Warehouse Constraints, Araki Kawamura, T. Kaihara, D. Kokuryo, H. Mizuhara, T. Umeda and H. Ikeda

### Session 3-3-2: OS03 Advanced system design and applications II

OS03-13 A study on systematic grasping method for hazard scenarios using state transition graph

Koki Kaneda, Yusuke Tsutsui and Akira Tsumaya

OS03-14 A method for evaluating design novelty based on a distributional representation model

Kahoru Furuya, R. Masumura, F. Sayfullooh and Y. Shimomura

OS03-15 A method for structuring service use context based on the jobs theory

Chisaki Okamura, S. Tsuji, M. Ashikari, F. Sayfullooh, N. Hara and Y. Shimomura

OS03-16 A cognition conflict resolution method for the appropriate design and operation of artifacts

Kaito Uchiyama, R. Masumura, F. Sayfullooh and Y. Shimomura

OS03-17 A method to analyze the supply-demand structure of Product-Service Systems based on customers' and providers' logic

Meinosuke Ashikari, C. Okamura, F. Sayfullooh and Y. Shimomura

### Session 3-3-3: OS03/OS23 Advanced system design and applications III Bio-medical engineering and applications I

OS03-18 Design and Optimization of a Quasi-Abbe-Error-Free Three-Axis Platform for 12-Inch Wafer Metrology

Hsi-Hui Lin, Y. Lu, H. Li, T. Han and L. Chen

OS03-19 A design improvement method for information-circulation design

Yuma Yoshida, K. Uchiyama, R. Masumura, F. Sayfullooh and Y. Shimomura

OS03-20 A Theory for Finding Conceptual Voids in Creative Design Support, Morishima

Taiki, K. Furuya, R. Masumura, F. Sayfullooh and Y. Shimomura

OS23-02 Development of Oral Sensor Based on Amine Film Formed on a Gold Surface for Sensing Bicarbonate Ion in Saliva

Suwu Han, Kazuma Sasaki, Jyoti Jaiswal and Kazuyoshi Tsuchiya

OS23-01 Parameter Identification and Energy Capture Mechanism of Multi-degree-of-freedom Oscillating Float-type Wave Energy Conversion Structure under Random Loads, Deli Wang, W. Yang, B. Wu, X. Guo, Y. Xu, H. Pei and W. Xu

### Session 3-3-4: OS23 Bio-medical engineering and applications II

OS23-03 Numerical and experimental verification of super-resolution imaging and phase recovery with structured illumination

Shumpei Suzuki, S. Usuki, T. Sekine and K. T. Miura

OS23-04 Study on the relationship between the skin properties of the finger pad and vibration perception

Taaki Takanari, T. Okuyama, C. Paillet-Mattei and M. Tanaka

OS23-05 Effects of applied voltage on electroporation to cell using polypyrrole electrode

F. Iimura, S. Amaki, S. Koeda, T. Kono, H. Miyoshi and A. Kaneko

OS23-08 Injection Molding of PLA Microneedles Mimicking Mosquitoes

Natsuo Otera, D. Yamaguchi, Y. Nakata, S. Kaku, M. Suzuki, T. Takahashi, S. Aoyagi, K. Suzuki, Z. Haga and Y. Tanigawa