

**The Sixth International Workshop on Regional Innovation Studies (IWRIS2014)
Temporal Presentation Program (Oct. 16-17, 2014)**

- i) Workshop Room:** Hall 3F, Building of Regional Innovation Studies Mie University
ii) Presentation Time: Oral Presentation: 10 min., Q&A: 5min., Total: 15 min.
Presentation Bell: 8min., 10min., 14min.

I. FIRST DAY : 16 OCTOBER (THURSDAY)

10:10-10:15 Opening Speech of International Workshop

Issei Kobayashi (Dean of Graduate School of Regional Innovation Studies)

10:15-11:00 Session 1 Molecular Biology I for Regional Innovation

Session chairs: Issei Kobayashi and Shuichi Karita

- (1) 10:15 Mechanism of the DNA Damage Induced by Incomplete DNA Methylation

- Analysis of Hemimethylated DNA -

Akihiro Ikuno¹, Shin Ogata¹ and Katsuzumi Okumura¹

¹ Graduate School of Bioresources, Mie University

- (2) 10:30 DNA Damage Induction Mechanism with the DNA Hypomethylation

- Depletion of DNMT1 by DNA Methylation Inhibitor 5-aza-2'-deoxycytidine -

Yuta Murabayashi¹, Hideaki Kaneoka¹, Kenji Kuriya¹, Shin Ogata¹ and Katsuzumi Okumura^{1,2}

¹ Graduate School of Bioresources, Mie University

- (3) 10:45 Analyses of DNA Replication and Cell Cycle Using Zebrafish-derived Cells

Kenji Kuriya¹, Eriko Higashiyama¹, Eriko Avsal-Ban¹, Yutaka Tamaru¹, Shin Ogata¹ and Katsuzumi Okumura¹

¹ Graduate School of Bioresources, Mie University

11:00-11:45 Session 2 Molecular Biology II for Regional Innovation

Session chairs: Takeo Yano and Sahoko Ichihara

- (4) 11:00 Shortage of Food Nutrition Induces DNA Damage and Delays DNA Replication

Yuta Minamigawa¹, Shin Ogata and Katsuzumi Okumura¹

¹ Graduate School of Bioresources, Mie University

- (5) 11:15 Genome-wide Changes of DNA Methylation of Regenerated Rice and Possibility of the Artificial Orientation

Taeko Furihata¹, Yuhko Kobayashi¹ and Issei Kobayashi¹

¹ Graduate School of Regional Innovation Studies, Mie University

- (6) 11:30 Genetic Modification in Food Industry

Sun Yupeng¹ and Issei Kobayashi¹

¹ Graduate School of Regional Innovation Studies, Mie University

11:45-13:20 Lunch Time

13:20-15:00 Session 3 Invited Lectures from Taiwanese Universities

Oral Presentation Time: 20 min., Q&A: 10min., Total: 30 min.

Session chairs: Norihiro Nishimura

- (I-1) 13:20 Development of Japan-Taiwan Industrial Alliance: The Case of Industrial Cooperation between Mie Prefecture, Japan, and Taiwan

Kuanju Lin¹

¹ College of Finance and Economic, Aletheia University, New Taipei, Taiwan, Republic of China

- (I-2) 14:00 Induction of Apoptosis by *Antrodia cinnamomea* Mycelium from Solid-fermentation in Human Non-small Cell Lung Carcinoma A549 Cell

Chun-Sheng Chang¹

¹ Dept. of Biotechnology, Southern Taiwan University of Science and Technology, Taiwan

- (I-3) 14:30 On the Effect of Quantum Barrier Thickness in the Active Region of Nitride-Based Light Emitting Diodes

Chun-Kai Wang¹ Y. Z. Chiou¹, S. J. Chang², C. Y. Chang², T. H. Chiang³ and T. K. Lin³

¹ Dept. of Electronic Engineering, Southern Taiwan University of Science and Technology, Tainan 71005, Taiwan

² Institute of Microelectronics & Department of Electrical Engineering, National Cheng Kung University, Tainan 70101, Taiwan

³ Epistar Corporation, Tainan 744, Taiwan



15:15-16:30 Session 4 Biomedical and Welfare Engineering for Regional Innovation

Session chairs: Masaaki Bannai and Takashi Mishima

- (7) 15:15 Automatic Extracting Method of Multi-Boundary in Retinal Layer for 3D Optical Coherence Tomography Image

Nguyen Ngoc Anh Huyen¹, Shinji Tsuruoka², Hiroharu Kawanaka¹, Haruhiko Takase¹, Hisashi Matsubara³, Hisanori Yagami⁴ and Fumio Okuyama⁵

¹ Graduate School of Engineering, Mie University

² Graduate School of Regional Innovation Studies, Mie University

³ Graduate School of Medicine, Mie University

⁴ Intellectual Property Office, Community University Research Cooperation Center, Mie University

⁵ Graduate School of Health Science, Suzuka University of Medical Science, Mie,

- (8) 15:30 Comparative Study on Feature Descriptors for Characterizing Disease Tissue of Brain Images Kazuhiko Tamaki¹, Hiroharu Kawanaka¹, Bruce Aronow², Haruhiko Takase¹ and Shinji Tsuruoka³

¹ Graduate School of Engineering, Mie University

² Cincinnati Children's Hospital Medical Center, Cincinnati, Ohio, USA

³ Graduate School of Regional Innovation Studies, Mie University

- (9) 15:45 A Study on Shapes Distribution of Grip Forms for Comfortable Grip Form Designing
Yuji Sasano¹, Kazuyoshi Takahashi², Hiroharu Kawanaka¹, Koji Yamamoto³, Haruhiko Takase¹ and Shinji Tsuruoka⁴

¹ Graduate School of Engineering, Mie University

² Banzai Factory Inc., Iwate

³ Suzuka University of Medical Science, Mie

⁴ Graduate School of Regional Innovation Studies, Mie University

- (10) 16:00 Development of Dementia Evaluation System Using Conversations and Drawing Tests
Tomoaki Shigemori¹, Hiroharu Kawanaka¹, Haruhiko Takase¹ and Shinji Tsuruoka²

¹ Graduate School of Engineering, Mie University

² Graduate School of Regional Innovation Studies, Mie University

- (11) 16:15 A New Robot Therapy to Delay Progression of Dementia for Elderly Patients by Arousing Emotions of Them.

Shinobu Nakagawa^{1,2} and Shinji Tsuruoka¹

¹ Graduate School of Regional Innovation Studies, Mie University

² Design department, Osaka University of Arts, Osaka

II. SECOND DAY: 17 OCTOBER (FRIDAY)

9:00-10:15 Session 5 Educational and Learning Engineering for Regional Innovation

Session chairs: Kazunori Yamamori and Masataka Kubo

- (12) 9:00 Supporting System for Quiz in Large Class

- A Method to Visualize Usage of Keyword -

Tomoya Oba¹, Haruhiko Takase¹, Hiroharu Kawanaka¹ and Shinji Tsuruoka²

¹ Graduate School of Engineering, Mie University

² Graduate School of Regional Innovation Studies, Mie University

- (13) 9:15 Automatic Keyword Extraction from Descriptive Answers of Quiz

- Effectiveness of Database to Extract Keywords--

Kenji Hayakawa¹, Haruhiko Takase¹, Hiroharu Kawanaka¹ and Shinji Tsuruoka²

¹ Graduate School of Engineering, Mie University, Mie, Japan

² Graduate School of Regional Innovation Studies, Mie University, Mie, Japan

- (14) 9:30 Suppress Redundant Spikes in Extended SpikeProp

-Effect of Adjustment of Weight Decay Parameters -

Takashi Matsumoto¹, Yuta Shin¹, Haruhiko Takase¹, Hiroharu Kawanaka¹ and Shinji Tsuruoka²

¹ Graduate School of Engineering, Mie University

² Graduate School of Regional Innovation Studies, Mie University

- (15) 9:45 Improvement for Input-Output Characteristic of SpikeProp Networks

- Input Patterns that Cause Discontinuous Output Change -

Yoichiro Kitagawa¹, Haruhiko Takase¹, Hiroharu Kawanaka¹ and Shinji Tsuruoka²

¹ Graduate School of Engineering, Mie University

² Graduate School of Regional Innovation Studies, Mie University

(16) 10:00 High Speed Extraction Method for Character Lines on a Handwritten Examination Paper

Katsunari Goto¹, Shinji Tsuruoka¹, Haruhiko Takase², Hiroharu Kawanaka², Chinthaka Premachandra³
and Hisanori Yagami⁴

¹ Graduate School of Regional Innovation Studies, Mie University

² Graduate School of Engineering, Mie University

³ Graduate School of Engineering, Tokyo University of Science, Katsushika, Tokyo

⁴ Community University Research Cooperation Center, Mie University

10:30-11:45 Session 6 Computer Aided System for Regional Innovation

Session chairs: Katsuya Kodama and Shinji Tsuruoka

(17) 10:30 Segmentation and classification of the added marks (Dakuten: ゃ and Handakuten: ゃ) for personal Hiragana character recognition

Isamu Fujii¹, Hiroharu Kawanaka¹, Haruhiko Takase¹, Hisanori Yagami² and Shinji Tsuruoka³

¹ Graduate School of Engineering, Mie University

² Community School Research Cooperation Center, Mie University

³ Graduate School of Regional Innovation Studies, Mie University

(18) 10:45 Vocational Guidance System for selecting Companies Using the Interested Class Subjects of a Student

Hiroshi Yoshida¹, Shinji Tsuruoka¹, Hisanori Yagami³, Hiroharu Kawanaka² and Haruhiko Takase²

¹ Graduate School of Regional Innovation Studies, Mie University

² Graduate School of Engineering, Mie University

³ Community University Research Cooperation Center, Mie University

(19) 11:00 Automatic Generation of Crack Sketch Image for Tunnel Face Image

Kouta Sawai¹, Tsuyoshi Arakawa¹, Noriko Kato^{1,2}, Hisanori Yagami³, Haruhiko Takase⁴,
Hiroharu Kawanaka⁴ and Shinji Tsuruoka¹

¹ Graduate school of Regional Innovation Studies, Mie University

² Mie Office of River and National Highway, Chubu Regional Bureau, Ministry of Land, infrastructure
and Transport

³ Community University Research Cooperation Center, Mie University

⁴ Graduate School of Engineering, Mie University

(20) 11:15 Improvement of the Automatic Generation of Deformed Maps by Road Abbreviation

Yuya Hijikata¹ and Kazunori Yamamori¹

¹ Graduate School of Regional Innovation Studies, Mie University

(21) 11:30 Optimization of the Spatial Arrangement of Sun Light Reflecting Mirrors (Heliostats)

Ryosuke Naruse¹ and Masaaki Bannai¹

¹ Graduate School of Regional Innovation Studies, Mie University

11:45 Closing Speech: Workshop Program Chair: Shinji Tsuruoka