# The Seventh International Workshop on Regional Innovation Studies (IWRIS2015)

Program (October 15-16, 2015)

Workshop Room: Hall 3F, Building of Regional Innovation Studies, Mie University

Presentation time: total 15 minutes (presentation: 10 minutes + discussion: 5 minutes)

Bell Timing: 8 minutes, 10 minutes, 14 minutes

# I. First Day: October 15 (Thursday)

10:10-10:15 **Opening** 

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

### **Session 1 Engineering I for Regional Innovation**

Session chairs: Mikihito Kanou and Hideto Miyake

1) 10:15-10:30

Extraction and Recognition of Dot-Matrix Characters

Koshi Suzuki, Wataru Ohyama, Tetsushi Wakabayashi, Fumitaka Kimura

Graduate School of Engineering, Mie University

2) 10:30-10:45

A Study on Dementia Evaluation Using Facial Expression Recognition Tomoaki Shigemori, Kaito Nakamura, Hiroharu Kawanaka, Haruhiko Takase Graduate School of Engineering, Mie University

3) 10:45-11:00

Training Algorithm for Spike Train in SpikeProp - Adding Units During Training - Takuya Toyota, Haruhiko Takase, Hiroharu Kawanaka, Shinji Tsuruoka Graduate School of Engineering, Mie University

### **Session 2 Engineering II for Regional Innovation**

Session chairs: Takashi Mishima and Naoya Torikai

4) 11:15-11:30

Automatic Region Detection for Myocardial Motion Tracking Using M-mode Echocardiograms

Masashi Hamaguchi, Wataru Ohyama, Tetsushi Wakabayashi, Fumitaka Kimura Graduate School of Engineering, Mie University

## 5) 11:30-11:45

Usefulness of Computer-Assisted Diagnosis System for Tunnel Face Image Noriko Kato, Kouta Sawai, Tsuyoshi Arakawa, Shinji Tsuruoka Graduate School of Regional Innovation Studies, Mie University

#### 6) 11:45-12:00

A Study on Nuclei Segmentation Accuracy for Tissue Specimen Analysis of Brain Histopathology Images

Kiichi Fukuma<sup>1</sup>, Hiroharu Kawanaka<sup>1</sup>, Surya Prasath<sup>2</sup>, Bruce J. Aronow<sup>3</sup>, Haruhiko Takase<sup>1</sup> Graduate School of Engineering, Mie University

#### 12:00-13:30 Lunch Time

#### **Session 3 Invited Lectures**

Presentation time: total 30 minutes (presentation: 20 minutes + discussion: 10 minutes)

Session chair: Norihiro Nishimura

(I-1) 13:30-14:00

Bitcoin Reconsidered: Quite a Bit of Innovation, Not a Bit of Coin.

Tzu-Wen Sung

Department of International Business and Trade, Aletheia University, Taiwan R.O.C.

## (I-2) 14:00-14:30

Suppression of Upper Urinary Tract Urothelial Carcinoma by the Ethanol Extract of Silkworm Pupa-Cultivated *Cordyceps Militaris* Fruit Body through G2/M-phase Arrest Ting-Feng Wu<sup>1</sup>, Jyun-Yi Ma<sup>1</sup>, Chien-Tai Cheng<sup>2</sup>

<sup>1</sup>Department of Biotechnology, Southern Taiwan University of Science and Technology, Tainan, Taiwan R.O.C.

<sup>2</sup>Nan Pao Resins Chemical Co. LTD

#### (I-3) 14:30-15:00

Attempt of the Royal University of Phnom Penh Japanese Department - Japanese and Japanese Culture Spread Caravans -

Loch Leaksmy

Royal University of Phnom Penh/Department of Japanese, Head Department of Japanese,

<sup>&</sup>lt;sup>2</sup>University of Missouri, MO, USA

<sup>&</sup>lt;sup>3</sup>Cincinnati Children's Hospital Medical Center, OH, USA

## Phnom Penh, Kingdom of Cambodia

## Session 4 Molecular Biology for Regional Innovation

## Session chairs: Yasuaki Kagaya and Takeo Yano

7) 15:15-15:30

Direct Microbial Production of Higher Alcohols from Cellulose

Shunsuke Ichikawa<sup>1</sup>, Shuichi Karita<sup>2</sup>

<sup>1</sup>Graduate School of Regional Innovation Studies, Mie University

<sup>2</sup>Graduate School of Bioresources, Mie University

8) 15:30-15:45

Substrate-binding Affinities of GH Family 5 Cellulase from Clostridium Thermocelum

Yuki Namikawa<sup>1</sup>, Shuichi Karita<sup>2</sup>

<sup>1</sup>Graduate School of Regional Innovation Studies, Mie University

<sup>2</sup>Graduate School of Bioresources, Mie University

9) 15:45-16:00

The Fermentation Feedstock Production from Cellulosic Biomass by the Engineered Bacterium

Maiko Ichihara<sup>1</sup>, Shunsuke Ichikawa<sup>2</sup>, Shuichi Karita<sup>1</sup>

<sup>1</sup>Faculty of Bioresources, Mie University

## **Session 5 Social Engineering for Regional Innovation**

## Session chairs: Takahiko Aoki and Issei Kobayashi

10) 16:15-16:30

The Value Formation Process and Industrial Development of the Yokkaichi Banko Ceramics Hisao Nishiura<sup>1</sup>, Motoi Goto<sup>2</sup>, Hye-Sook Park<sup>2</sup>

<sup>1</sup>Graduate School of Regional Innovation Studies, Mie University

<sup>2</sup>Faculty of Humanities, Law and Economics, Mie University

11) 16:30-16:45

Reform of Local Governments Will Lead to Regional Revitalization - Based on the Result of a Questionnaire -

Yoshikazu Okaishi<sup>1,2</sup>, Yoshimasa Murata<sup>2</sup>, Shinji Tsuruoka<sup>3</sup>

<sup>1</sup>Graduate School of Regional Innovation Studies, Mie University

<sup>2</sup>Scinex Corporation

<sup>3</sup>Graduate School of Engineering, Mie University

<sup>&</sup>lt;sup>2</sup>Graduate School of Regional Innovation Studies, Mie University

## 12) 16:45-17:00

The Relationships Between the Physiological Responses at Different Intensities of Endurance Exercise, Oxidative Stress and Antioxidant Capacity

Kosuke Taniguchi<sup>1</sup>, Masaaki Sugita<sup>2</sup>

<sup>1</sup>Graduate School of Regional Innovation Studies, Mie University

17:00-19:00 **Banquet** (Restaurant PASEO on campus)

# II. Second Day: October 16 (Friday)

**Session6 Engineering III for Regional Innovation** 

Session chairs: Hisanori Yagami and Hideto Miyake

13) 9:30-9:45

Research of Small Hydro Power Plants for the Purpose of Regional Innovation

Bai Huapu, Masaaki Bannai

Graduate School of Regional Innovation Studies, Mie University

14) 9:45-10:00

Verification Experiments of Robot System for Emotions Expressed by Physical Motions.

- Analysis of "Bunraku" Puppet Motion -

Shinobu Nakagawa<sup>1</sup>, Shinji Tsuruoka<sup>2</sup>, Hiroshi Taguchi<sup>2</sup>, Kouichi Osuka<sup>3</sup>, Hirofumi Tamai<sup>4</sup>, Izumi Egami<sup>5</sup>, Chika Izuta<sup>6</sup>

<sup>1</sup>Graduate School of Regional Innovation Studies, Mie University

## 15) 10:00-10:15

Automatic High-precision Alignment for Heliostat Using Attached Camera

Shunsuke Asai<sup>1</sup>, Wataru Ohyama<sup>1</sup>, Tetsushi Wakabayashi<sup>1</sup>, Fumitaka Kimura<sup>1</sup>, Kazuya Sawayama<sup>2</sup>, Takeshi Matukawa<sup>2</sup>

<sup>1</sup>Graduate School of Engineering, Mie University

16) 10:15-10:30

<sup>&</sup>lt;sup>2</sup>Faculty of Education, Mie University

<sup>&</sup>lt;sup>2</sup>Graduate School of Engineering, Mie University

<sup>&</sup>lt;sup>3</sup>Osaka University

<sup>&</sup>lt;sup>4</sup>Muscle Company

<sup>&</sup>lt;sup>5</sup>Tsukuba University

<sup>&</sup>lt;sup>6</sup>Osaka University of Arts

<sup>&</sup>lt;sup>2</sup>Hikari Kikai Seisakusho Co., Ltd

Influence of the Blended Homopolymer on Microphase-separated Structure of Two-component Triblock Copolymers with Different Molecular Sequences

Keisuke Mogari<sup>1</sup>, Ryosuke Himeno<sup>2</sup>, Naoya Torikai<sup>1,2</sup>

<sup>1</sup>Graduate School of Regional Innovation Studies, Mie University

## **Session7 Engineering IV for Regional Innovation**

#### Session chairs: Sahoko Ichihara and Masaaki Bannai

17) 10:45-11:00

Self-Learning Environment of Software Testing for Learners with High Programming Potential

Zhiao Yuan<sup>1</sup>, Hidehiko Kita<sup>2</sup>

<sup>1</sup>Graduate School of Regional Innovation Studies, Mie University

<sup>2</sup>Graduate School of Engineering, Mie University

18) 11:00-11:15

A Learning Method for SpikeProp without Redundant Spikes - Suppress Redundant Weights According to Spike Time -

Takashi Matsumoto, Haruhiko Takase, Hiroharu Kawanaka, Shinji Tsuruoka Graduate School of Engineering, Mie University

19) 11:15-11:30

Analysis of Typing Process to Answer Descriptive Quiz - A Discussion of Reason for Suspension of Typing Process -

Kenji Hayakawa, Haruhiko Takase, Hiroharu Kawanaka, Shinji Tsuruoka Graduate School of Engineering, Mie University

### 11:30-11:35 **Closing**

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

<sup>&</sup>lt;sup>2</sup>Faculty of Engineering, Mie University