

# Message from the organizers

Dear Colleagues and Friends,

2018 International Conference for Leading and Young Computer Scientists (IC-LYCS 2018) will be held in Okinawa, Japan during Feb 09-12 2018.

IC-LYCS intends to provide a platform for the exchange and networking between top scientists, emerging young researchers, and students across a wide spectrum of

computer science and informatics.

We would like to invite you to participate in IC-LYCS 2018. Your active participation is the key to the success of this conference.



Yours Sincerely,

**IC-LYCS 2018 Committee** 

Asia Pacific Society for Computing and Information Technology (APSCIT)

www.apscit.org





# **Conference organizing committee**

#### **CONFERENCE CHAIRS**

**Prof. Shizue IZUMI (Shiga University)** 

**Prof. Shigeo AKASHI (Tokyo University of Science)** 

**Prof. Von-Wun SOO (National Tsing Hua University)** 

**Prof. Jan-Ming HO (Academia Sinica)** 

Prof. Yoshifumi NISHIDA (National Institute of Advanced Industrial Science and Technology)

#### **CONFERENCE PROGRAM DIRECTORS**

**Dr. Yingxue SONG (APSCIT)** 

#### **CONFERENCE SECRETARIAT**

Ms. Yangjun HU (APSCIT)

Ms. Yaru WU (APSCIT)





# **Conference topics**

- 1. Theory, Algorithms, Programming
- 2. Database, Cloud Computing, Data Mining, Big Data
- 3. Communications, Networking, Security, and Internet of Things
- 4. Multimedia, Image Processing and Recognition (Virtual Reality)
- 5. High Performance Computing and Intelligent Systems (AI, Robotics)
- 6. Software Engineering and Applications
- 7. Electronics (Analog/Digital Circuits, Signal Processing, System Architectures)

	FRI, 2/9	SAT, 2/10	SUN, 2/11	MON, 2/12
9:10 -10:30	Pre-session	Oral Presentation		
10:30 – 10:40	technical and discussion forums on international collaboration	Coffee & Tea Break		
10:40 – 12:10		Oral Presentation		
12:10 – 12:55		Lunch	Break	
13:00 – 14:30		Oral Presentation		
14:30 – 14:40		Coffee & Tea Break		
14:40 – 16:50		Oral Presentation		Optional Excursion
17:00 – 18:30	Conference Registration & Reception		Poster Session	
19:00 – 20:30			Conference Banquet	



# **Presentation List (Room B)**

	FRI, 2/9	SAT, 2/10	SUN, 2/11	MON, 2/12
9:10 - 10:30	Pre-session	1. S. IZUMI 2. S. TAKATA	13. T.R. LEE 14. T. ARITA	25. C.S. JE 26. T.L. SHEN
10:30 - 10:40	technical and discussion forums on international			
10:40 - 12:10	collaboration	3. T. SATO 4. A. KAWAI 5. H. MIYAJIMA	15. S. AKASHI 16. B.S. HAM 17. H. AOKI	27. R.I. CHANG 28. W.L. HWANG
12:10 - 12:55				
13:00 - 14:30		6. V.W. SOO 7. C.F. HUANG 8. L. SU	18. S.S. KANG 19. C.F. CHANG 20. E. DOMOTO	
14:30 - 14:40		Coffee & Tea Break		
14:40 - 16:50		9. Y.H. YANG 10. B.G. LEE 11. M. TSUNODA 12. Reserved	21. W.T. SUNG 22. J.W. HSIEH 23. J.C. JEON 24. Reserved	Conference Excursion
17:00 - 18:30	Conference Registration & Reception		Poster Session	
19:00 - 20:30			Conference Banquet (Approx. 1.5 hrs)	



# **Presentation List (Room A)**

	FRI, 2/9	SAT, 2/10	SUN, 2/11	MON, 2/12
9:10				
- 10:30	Pre-session			
10:30	technical and			
10:30	discussion forums			
10:40	on international			
10:40	collaboration			
-	conaboration			
12:10				
12:10				
- 12:55		Lunch Break		
		6. Y. HASEGAWA		
13:00		7. K. KITAMURA		
14:30		8. K.C. KIM		
14:30				
-		Coffee & Tea Break		
14:40				
14:40		9. S.Y. KWON		
-		10. J.M. HO 11. K. OKUHARA		Conference Excursion
16:50		12. Reserved		
17:00	Conference			
10.20	Registration &		Poster Session	
18:30	Reception			
19:00				
-			Conference Banquet	
20:30			(Approx. 1.5 hrs)	



#### **Presentations for IC-LYCS 2018**

# SATURDAY 2/10

#### **Room B**

- 1. Use of Big Data in Risk Communication: Statistical Methods for Longitudinally Issued Text Data (S. IZUMI)
- 2. New Direction in the Education of Data Science in Japan-Big data, Data mining, data base and Cloud computing (S. TAKATA)
- 3. Toward construcing Virtualized Real World from Images (T. SATO)
- 4. Approach Traffic Congestion Problems (A. KAWAI)
- 5. Security and Privacy preserving for Machine Learning using Secure Multiparty Computation (H. MIYAJIMA)
- 6. How Can Machines Generate Stories (V.W. SOO)
- 7. Algorithmic Composition with Music Emotion and Genre (C.F. HUANG)
- 8. An Introduction to Automatic Music Transcription (L. SU)
- 9. Machine Learning for Creative AI Applications in Music (Y.H. YANG)
- 10. Recent Reseaches on Hardware Neuarl Network (B.G. LEE)
- 11. Applying Propensity Score to Analyze Productivity of Software Development Projects (M. TSUNODA)
- 12. Reserved

### Room A

# GOLDEN ACADEMY

- 6. Evaluation of Plant Physiological Activities Using Plant Bioelectric Potential Response for controlling cultivation environment (Y. HASEGAWA)
- 7. Living Safety Technology based on Integration of Multi-Organizational Distributed Data (K. KITAMURA)
- 8. Safety and Security of Iot Devices (K.C. KIM)
- 9. DSSC Efficiencies of PEG Additive In TiO2 Paste (S.Y. KWON)
- 10. DASH Streaming in Underground Rapid Transportation (J.M. HO)
- 11. Importance Calculation of Node and Arc in Network by Graph Mining (K. OKUHARA)
- 12. Reserved

# **SUNDAY 2/11**

### Room B

- 13. Mobile e-Book for BITEC Learner in a connected world (T.R. LEE)
- 14. Evolving Virtual Creatures for Ecological Evolutionary Developmental Biology (eco-evo-devo) (T. ARITA)
- 15. Network Theoretic Similarities Commonly Existing in DNS Reflection Attack and in Dos Attack Caused by Clients Accused Falsely (S. AKASHI)
- 16. Unconditional Security in Quantum Communications beyond the Practical Limit of Quantum Loopholes (B.S. HAM)

# GOLDEN ACADEMY

- 17. Depth Sensor Applications: Haptic User Interface and Non-contact Biosignal Measurement (H. AOKI)
- 18. NLP Techniques and its Applications: Machine Translation, Big data, and Deep Learning (S.S. KANG)
- 19. Resurgence of Image-Based Rendering in VR/AR Applications (C.F. CHANG)
- 20. Improvement of Education Quality by Utilizing Big Data in Academic Life Log of Student (E. DOMOTO)
- 21. Some innovation IOT Systems Integration and Applications (W.T. SUNG)
- 22. The Reliability Issues of Flash-memory Storage Systems (J.W. HSIEH)
- 23. Introdution of Quantum-Dot Cellular Automata Circuits (J.C. JEON)
- 24. Reserved

# **POSTER SESSION**

- P1. KoNLTK: Korean Natural Language Toolkit for Python Platform (Y.H. CHO)
- P2. Ripeness Evaluation of Post Harvest Fruits using Plant Bioelectric Potential (R. ISHIDA)
- P3. Deep Learning Method of Keyword Generation by using Doc2Vec and Word2Vec (H.Y. LEE)
- P4. N-gram based Language Model for the QWERTY Keyboard Input Errors in a Touch Screen Environment (Y.G. ONG)
- P5. Algorithmic Composition Musical Platform with Perception (W.P. NIEN)



P6. Combining Bi-LSTM and CRF Model for Automatic Word-Spacing of the Korean Language (G.H NAM)

# **MONDAY 2/12**

# Room B

- 25. Color Structured Light for Rapid Range Imaging (C.S. JE)
- 26. Application of Prediction and Learning Algorithms in Automotive Powertrain Systems (T.L. SHEN)
- 27.In-memory Lookup Cloud for Constructing Suffix Array of Next-Generation Sequencing upon MapReduce (R.I. CHANG)
- 28. Constrained Null Space Component Analysis for Semi-Blind Source Separation Problem (W.L. HWANG)