

# GOLDEN ACADEMY

## Message from the organizers

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Dear Colleagues and Friends,

2017 International Conference for Top and Emerging Computer Scientists (IC-TECS 2017) will be held in GIS TAIPEI TECH Convention Center, Taipei, Taiwan during Dec 21-24 2017.

IC-TECS 2017 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-TECS 2017. Your active participation is the key to the success of this conference.



Yours Sincerely,

IC-TECS 2017 Committee

Asia Pacific Society for Computing and Information Technology (APSCIT)

[www.apscit.org](http://www.apscit.org)

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## Conference organizing committee

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### CONFERENCE CHAIRS

Prof. Wu-Ja LIN (National Formosa University)

Prof. Yu-Chen LIN (Feng Chia University)

Prof. Hsin-Chuan CHEN (Beijing Institute of Technology, Zhuhai)

Prof. Hsiu-Hsen YAO (Yuan Ze University)

Prof. Jue-Sam CHOU (Nanhua University)

Prof. Tsang-Long PAO (Tatung University)

Prof. Chi-Chou KAO (National University of Tainan)

### CONFERENCE PROGRAM DIRECTORS

Dr. Yingxue SONG (APSCIT)

### CONFERENCE SECRETARIAT

Ms. Yangjun HU (APSCIT)

Ms. Yaru WU (APSCIT)

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## Conference topics

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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)*

	THU, 12/21	FRI, 12/22	SAT, 12/23	SUN, 12/24
9:00 – 10:20	Pre-session technical and discussion forums	Oral Presentation		
10:20 – 10:30		Coffee & Tea Break		
10:30 – 12:00		Oral Presentation		
12:10 – 13:00		Lunch Break		Optional Excursion
13:10 – 14:40		Oral Presentation		
14:40 – 14:50		Coffee & Tea Break		
14:50 – 15:50		Oral Presentation	Oral Presentation	
15:50 – 16:30			Poster Session	
16:30 – 17:00		Conference Registration		
18:00 – 19:30	Conference Reception		Conference Banquet (Approx. 1.5 hrs)	

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## Presentation List (No. 203 Meeting Room)

	THU, 12/21	FRI, 12/22	SAT, 12/23	SUN, 12/24
9:00 – 10:20	Pre-session technical and discussion forums	1. K. TANAKA 2. H.C. CHEN	13. S. IWAKI 14. Y. MIYAZAKI	23. K. INUI 24. H.H. YAO
10:20 – 10:30		Coffee & Tea Break		
10:30 – 12:00		3. S. NISHIDE 4. Y. HIRASHIMA 5. T. KAWAMURA	15. H.T. LIN 16. S.K. CHEN 17. M. SUZUKI	25. W.P. FANG 26. Y. HIGAMI 27. Y. SEI
12:10 – 13:00		Lunch Break		Optional Excursion
13:10 – 14:40		6. S. PARK 7. Q.T. DUONG 8. K. SHIMAZU	18. J. KOSAKAYA 19. H.D. CHU 20. T.H. TRAN	
14:40 – 14:50		Coffee & Tea Break		
14:50 – 15:50		9. H. KIM 10. H. TAKAHASHI 11. Y. CHANG 12. K. TANIGUCHI	21. C.W. LEE 22. L. LANANTE	
15:50 – 16:30		Poster Session		
16:30 – 17:00	Conference Registration			
18:00 – 19:30	Conference Reception		Conference Banquet (Approx. 1.5 hrs)	

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## Presentations for IC-TECS 2017

### FRIDAY 12/22

1. Adaptive Computing Framework in the IoT Era (K. TANAKA)
2. Design of a CMOS-Based H-Bridge Driver without Dead Time (H.C. CHEN)
3. Developmental Drawing Robot Using Recurrent Neural Network Model (S. NISHIDE)
4. Reinforcement Learning for Container Transfer Scheduling with Owner-Grouping in Rearrangement at Marine Terminals (Y. HIRASHIMA)
5. Position estimation and data connected driving lane with UHF RF-ID system for vehicle navigation (T. KAWAMURA)
6. Development of S-100 based new Product Specification Method for Integration with Legacy Systems (S. PARK)
7. Research on Inductive Power Transfer Techniques with MIMO Deployments and Parallel-Line-Feeder System (Q.T. DUONG)
8. Double-use strategy of Quasi-Zenith Satellite System communication based on Systems Engineering Framework (K. SHIMAZU)
9. Memristor-based Neural Synapses and their Application to Multilayer Neural Networks (H. KIM)
10. R-POST (Reliable Power-On Self-Test) for Automotive Functional Safety (H. TAKAHASHI)

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11. Dimension reduction with data mining method in the big data analysis (Y. CHANG)
- 12.earable: Wearable ear computer (K. TANIGUCHI & M. KUROSAWA)

## **SATURDAY 12/23**

13. Active Air Pillow as an IOT device (S. IWAKI)
14. Toward Synthetic Math Learning Environment with Searching Algorithm for Math Expressions (Y. MIYAZAKI)
15. A Novel Hardware-in-the-Loop Servo Control System for a Large-Stroke Asymmetric Rod-Less Pneumatic System under Variable Loads (H.T. LIN)
16. The studies of combining QR-code with Secret Sharing (S.K. CHEN)
17. Lyrics recognition from singing voice focused on note boundary (M. SUZUKI)
18. Multi-Agent-Based automated music scoring system for Tsugaru and Nambu Shamisen (J. KOSAKAYA)
19. The Implementation of Software Development Organizations Improvement Process (H.D. CHU)
20. Challenges on Developing Low Cost Low Power IoT Sensor Transceiver Based on IEEE 802.11ah (T.H. TRAN)
21. Introduction to the Technique of Digital Image Authentication and Repairing (C.W. LEE)
22. IEEE 802.11ax Uplink Multiuser Based Protocol for Low Latency Asynchronous Positioning System (L. LANANTE)

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## POSTER SESSION

- P1. Proposal of Automatic Recyclable resources Classifying System(ARCS) (M. ARAKAWA)
- P2. Using brainwave information to implement a novel color selection tool (Y.C. CHANG)
- P3. Improvement on a lightweight security protocol for NFC-based mobile payments (K.L. WU)
- P4. A Beacon-based Visible Light Communication System applied in Precise Indoor Localization for Smart Shopping (D.D. LE)
- P5. Open government data visualization (Y.L. HUANG)
- P6. Developing A Decision Support Process Based on Bus and Passenger Data Analysis to Improve Quality of Service (C.K. HONG)
- P7. Proposal of a behavior recognition system for early detection of dementia (M. OISHI)
- P8. A study on immersive user experience for game activity with third person perspective device (C.C. YEH)
- P9. Novel circuit for OOK-based visible light communication (F.L. CHANG)

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P10. Measurements of the pressure on the surface of the starter (S.H. WANG)

P11. Analyzing Taxi Driving GPS Data for Constructing a Dual Taxi Business Model  
(K.C. HSIEH)

P12. Reserved

## **SUNDAY 12/24**

23. Modeling Commonsense Reasoning for Natural Language Discourse  
Understanding (K. INUI)

24. Based on Taxi Driving Data Analysis to Develop A Navigation Method for  
Increasing Passenger Finding Probability (H.H. YAO)

25. A study on the influence of operating motion in real world with third person  
perspective (W.P. FANG)

26. Fault Simulation using Hazard Signals and Its Application to Fault Diagnosis for  
Delay Faults (Y. HIGAMI)

27. Privacy-Preserving Data Collection and Sharing for Big Data (Y. SEI)