LaTICE 2015 Doctoral Consortium (Thursday, April 9)

09:30 **Paper session**

**Effects on integrating HistoHry into Teaching of Computer Science Concepts**  
*Mei-Wen Chen.*

**A measurement tool development for computational thinking in programming**  
*Chiufan Hu*

**A social platform for learning computer programming**  
*Shengche Hsiao*

10:40 Tea break

11:00 **Paper session**

**Using Augmented Reality to Assist Developing Spatial Abilities**  
*Chih-Hung Yu*

**The essentials of designing language games in virtual worlds**  
*Indy Hsiao*

11:45 General discussion

12:30 Lunch

14:00 **Doctoral Consortium Workshop**

**Invited Talk: Tools for Literature Review and Data Analysis**  
*Dr. Neena Thota*

16:00 End

Participants are encouraged to bring laptops for hands-on exercises. Please download NVivo (30 days evaluation copy) for hands-on workshop from http://www.qsrinternational.com/products_free-trial-software.aspx.
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<td>Opening ceremony</td>
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| 09:30      | Keynote speech: Interfaces for programming: Rethinking program development from an HCI perspective  
Dr. Michael Kölling |
| 11:00      | Coffee break and photo session                                        |
| 11:30      | Paper session             |
|            | **Instructional media** session chair: Robert Hans, Tshwane University of Technology, South Africa |
|            | Interactive Learning Content for Introductory Computer Science Course Using the VILLE Exercise Framework  
Ville Karavirta, Riku Haavisto, Erkki Kaila, Mikko-Jussi Laakso, Teemu Rajala, Tapio Salakoski |
|            | Effect of Medium of Instruction on Programming Ability Acquired through Screencast  
Yogendra Pal, Sridhar Iyer |
| 12:30      | Lunch                                                                 |
| 13:40      | Paper session             |
|            | **Theories of learning** session chair: Mohamed Shenify, Albaoha University, Saudi Arabia  
Mohamed Shenify, Anna Eckerdal |
|            | On the Bimodality in an Introductory Programming Course: An Analysis of Student Performance Factors  
Lars Josef Höök, Anna Eckerdal |
|            | Metacognitive Scaffolding to Support Students in Learning Authoring System Subject  
Nurul Farhana Jumaat, Zaidatun Tasir |
|            | About Didactic Transposition: Teaching programming fundamentals at different levels of the school system  
Jesus Insuasti, Juan Manuel Dodero Beardo |
| 14:50      | Coffee break                                                          |

**Assessment** session chair: Timothy Yuen, The University of Texas at San Antonio, United States

Evaluation of Programming Competency using Student Error Patterns  
Eranki L.N.Kiran, Kannan M. Moudgalya

Integrating Cognitive Apprenticeship Strategy with the use of Online Forum in Developing Product Assignments  
Mohd Fadzli Ali, Lokman Tahir, Mohd Nhira Haruzuan Md Said, Nursyakila Mat Tahir

**Collaborative learning** session chair: David Thompson, University of Canterbury, New Zealand

Engaging School Students with Tangible Devices: Pilot Project with .NET Gadgeteer  
Neena Thota, Gerald Estradieu, Antonio Ferrao, Wong Kai Meng

On the Participatory Design of Jeliot Mobile: Towards a Socio-Constructivist Mlearning Tool  
Muhammad Mustafa Hassan, Andrés Moreno, Erkki Sutinen, Abdul Aziz

Scrumming with Educators: Cross-Departmental Collaboration for a Summer Software Engineering Capstone  
Timothy T. Yuen
15:10 Paper session

**Assessment**

*session chair: Nurul Farhana, Universiti Teknologi Malaysia, Malaysia*

Harmful Study Habits in Online Learning Environments with Automatic Assessment

*Tapio Auvinen*

**Observation System for Assessment of Learning Engagement in Various Pedagogies**

*Bosede I. Edwards, Nurbihai A Shukor, Baharuddin Aris*

16:00 End

16:10 Set off to the National Palace Museum

16:50 Tour of the National Palace Museum


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**Teaching data structures**

*session chair: Teemu Rajala, University of Turku, Finland*

Thinking, Pairing, and Sharing to Improve Learning and Engagement in a Data Structures and Algorithms (DSA) Class

*Patil Deepti Reddy, Shitanshu Mishra, Sahana Murthy, Ganesh Ramakrishnan*

**Data Structures in Flipped Classroom: Students’ Effort and Preference**

*Greg Lee, Pei-Lun Lee*
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<td>Investigating the Psychometric Structure of Bebras Contest</td>
<td>Peter Hubwieser, Andreas Mühling</td>
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<td>A Framework for Generic Exercises with Mathematical Content</td>
<td>Filiz Kurt-Karaoglu, Nils Schwinning, Michael Striewe, Björn Zurmaar, Michael Goedicke</td>
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<td>Assessing the Maturity of Teamwork Capabilities through Capstone Project</td>
<td>Vu T Truong, Bao N Le, Man D Nguyen</td>
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<td>Theories of learning</td>
<td>Rekha Ramesh, Uma R. Rao</td>
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<td>Instructional media</td>
<td>Ching-Yin Hsu, Mei-Wen Chen, Cheng-Chih Wu</td>
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<td>Special session: Culturally situated teaching</td>
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<td>Teaching and Learning Computer Science at Al Baha University, Saudi Arabia: Insights from a staff development course</td>
<td>Anders Berglund, Arnold Pears, Aletta Nylén, et. al.</td>
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<td>Incorporating R&amp;D Activities into Computer Engineering Teaching &amp; Learning Program in Alba University</td>
<td>Mohammed Shennify, Sultan Aljahdali, Hisham M. Alsaghier, Rahmat Budiaro</td>
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<td>Invited talk: History of Computer Science Education</td>
<td>A Flash-Based Animation Program of Illicit Drug Prevention for High-Risk Adolescents</td>
<td>Jung-Yu Liao, Chiu-Mieh Huang, Jong-Long Guo</td>
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<td>Case-Based Instruction of “How Computer Works” Courses for High School Students</td>
<td>Ting-Chung Wang</td>
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Collaborative Learning Support System in a Classroom Using Ad Hoc Network of Tablet Devices
Naoya Sasaki, Yuta Hanai, Noriko Akazawa, Yasuichi Nakayama, Ichiro Yamaguchi

Computational Thinking Curriculum for K-12 Education-- A Delphi Survey
Hui-Chi Chuang, Chiu-Fan Hu, Cheng-Chih Wu, Yu-Tzu Lin

Designing Teacher Professional Development Workshops for Robotics Integration Across Elementary and Secondary School Curriculum
Hong Zhou, Timothy T. Yuen, Cristina Popescu, Adrienne Guillen, Don G. Davis

Effects of Adaptive Learning on Active Learners’ Learning Performance in Online Learning Environment
Norazlina Ahmad, Zaidatun Tasir, Faizah Hamzah, Mazura Mat Din

Introducing Scratch as the Fundamental to Study App Inventor Programming
Chiung-Fang Chiu

Learning Geometry with Augmented Reality to Enhance Spatial Ability
Yi-Ting Liao, Chih-Hung Yu, Cheng-Chih Wu

Programming Examples Analysis of Commercial Vocational High School Textbooks in Taiwan
Chiung-Fang Chiu

Which Programming Language Should Students Learn First? A Comparison of Java and Python
Chieh-An Lo, Yu-Tzu Lin, Cheng-Chih Wu

16:10 Paper session

Implications of variation in learning
session chair: Ching-Kun Hsu, National Taiwan Normal University, Taiwan
Studies on Patterns and Variations of Learning Community of Practices in Global Context
Karen Yi-Chwen Kuo, Chi-Syan Lin
Learning Practice and Theory in Programming Education: Students’ Lived Experience
Anders Berglund, Anna Eckerdal

Theories of learning
session chair: Kiran Kumar Eranki, Indian Institute of Technology, Bombay, India
Nurturing social-cultural process of creativity in the higher education within social network sites (SNS)
Zaleha Abdullah, Mohd Niha Haruzuan Mohamad Said
Assuring the Quality of Engineering Education
Arnold Neville Pears

17:00 End
18:00 Buffet dinner (Grand Hyatt, within walking distance to Taipei 101)
LaTiCE 2015 Conference Day 3 (Sunday, April 12)

09:00 Paper session

**Adaptive learning**

*session chair: Arnold Pears, Uppsala University, Sweden*

How Learning Styles in CS can Foster Inclusion of Visually Impaired Students

Dino Capovilla, Andreas Mühling, Peter Hubwieser

Learning Styles vs. Activities and Assessment in an Engineering Technology Course: Match or Mismatch?

Alina Shamsuddin, Azeanita Suratkon

Handling Heterogeneity in Programming Courses for Freshmen

Dino Capovilla, Marc Berges, Andreas Mühling, Peter Hubwieser

**Collaborative learning**

*session chair: Neena Thota, University of Saint Joseph, Macao*

Investigation of Social Networks and Discussions in STEM Education Communities on Twitter

Timothy T. Yuen, Trevor A Pickering

A Meta-Analysis on Students’ Argumentative Knowledge Construction Process in Social Collaborative Learning Environment

Siti Nur Khadijah Aishah Ibrahim, Jamalludin Harun

Collaborative Learning in Computer Programming Courses That Adopted The Flipped Classroom

Yasuhiro Hayashi, Ken-ichi Fukamachi, Hiroshi Komatsugawa

10:20 Coffee break
10:50 Announcement of LaTiCE 2016 and 2017
11:10 Discussion
12:00 Closing ceremony
12:10 Lunch
12:30 LaTiCE Program Committee meeting (by invitation)
14:00 Optional excursion, possibly walking tour