

## 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](http://www.qsrinternational.com/products_free-trial-software.aspx).



## LaTiCE 2015 Conference Day 1 (Friday, April 10)

08:00 Registration

09:00 Opening ceremony

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*

### **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 Nihra Haruzuan Md Said, Nursyakila Mat Tahir*

12:30 Lunch

13:40 *Paper session*

### **Theories of learning**

**session chair: Mohamed Shenify, Albaha University, Saudi Arabia**

**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 Doderro Beardo*

### **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 Estadieu, 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*

14:50 Coffee break

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, Nurbiha A Shukor, Baharuddin Aris*

16:00 End

16:10 Set off to the National Palace Museum

16:50 Tour of the National Palace Museum

19:10 Conference dinner (National Palace Museum, <http://www.npm.gov.tw>)

**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*



## LaTiCE 2015 Conference Day 2 (Saturday, April 11)

08:30 Registration

09:00 Paper session

### Assessment

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

**Investigating the Psychometric Structure of Bebras Contest**

*Peter Hubwieser, Andreas Mühling*

**A Framework for Generic Exercises with Mathematical Content**

*Filiz Kurt-Karaoglu, Nils Schwinning, Michael Striewe, Björn Zurmaar, Michael Goedicke*

**Assessing the Maturity of Teamwork Capabilities through Capstone Project**

*Vu T Truong, Bao N Le, Man D Nguyen*

### Problem solving

**session chair: Tony Clear, Auckland University of Technology, New Zealand**

**Virtually Unplugged: Rich Data Capture to Evaluate CS Pedagogy in 3D Virtual Worlds**

*David Thompson, Tim Bell*

**Delayed Guidance: A Teaching-Learning Strategy to Develop Ill-Structured Problem Solving Skills in Engineering**

*Aditi Kothiyal, Bipin Rajendran, Sahana Murthy*

**Effects of Past Projects on the Education Experience of Civil Engineering Students**

*Teck Leong Lau, Wael Elleithy*

10:20 Coffee break

10:50 Paper session

### Theories of learning

**session chair: Anna Eckerdal, Uppsala University, Sweden**

**Investigating the Impact of In-Class Assignments on Higher Order Thinking Skills of Students in Engineering Course**

*Rekha Ramesh, Uma R. Rao*

### Special session: Culturally situated teaching

**Teaching and Learning Computer Science at Al Baha University, Saudi Arabia: Insights from a staff development course**

*Anders Berglund, Arnold Pears, Aletta Nylén, et al.*

**Incorporating R&D Activities into Computer Engineering Teaching & Learning Program in Albaha University**

*Mohammed Shenify, Sultan Aljahdali, Hisham M. Alsaghier, Rahmat Budiarto*

### Instructional media

**session chair: Peter Hubwieser, Technische Universität München, Germany**

**Teaching High School Computer Science with Videos of Historical Figures: An Augmented Reality Approach**

*Ching-Yin Hsu, Mei-Wen Chen, Cheng-Chih Wu*

**Students' Experiences on Using Nerepa: A Web-Based System for Students to Learn Financial Analysis Methods**

*R.T. Hans, N.D. Chuene, C.K. Lepota*

**Support System for Romaji Learning through Exercise**

*Kai Yawata, Noriko Akazawa, Dan Takeda, Yasuichi Nakayama, Hiroyasu Kakuda, Mitsugu Suzuki*

11:50 Lunch

13:40 **Invited talk: History of Computer Science Education**

*Dr. Nell B. Dale*

15:10 Poster session with coffee

**A Flash-Based Animation Program of Illicit Drug Prevention for High-Risk Adolescents**

*Jung-Yu Liao, Chiu-Mieh Huang, Jong-Long Guo*

**Case-Based Instruction of "How Computer Works" Courses for High School Students**

*Ting-Chung Wang*

**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, Fa'izah 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*

17:00 End

18:00 Buffet dinner (Grand Hyatt, within walking distance to Taipei 101)

***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 Nihra Haruzuan Mohamad Said*

**Assuring the Quality of Engineering Education**

*Arnold Neville Pears*



## 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

