Conference Program

Registration for RiE 2018: http://register.rie2018.info/

Wednesday, April 18

08:00-09:00 Registration

09:00-10:00 Opening Session

- Welcome & Introduction
  Richard Balogh, Angele Giuliano, Wilfried Lepuschitz, David Obdržálek – RiE 2018 Co-Chairpersons
- Keynote: An Incomplete History of Robotics Education and KISS Institute for Practical Robotics
  David Miller, US National Science Foundation (NSF)/University of Oklahoma, USA

10:00-10:20 Coffee break

10:20-12:00 Technical Session 1: Comprehensive View on Educational Robotics #1

- Beyond Educational Robotics (#26)
  Marjo Virnes
- Robots for Learning and Learning for Robots: An Examination of the Education-Robotics Symbiosis (#45)
  Habib Ahmed, Syed Irtiza Ali Shah and Yasar Ayaz
- Roboterfabrik: A Pilot to Link and Unify German Robotics Education to Match Industrial and Societal Demands (#43)
  Sami Haddadin, Lars Johannsmeyer, Johannes Schmid, Tobias Ende, Sven Parusel, Simon Haddadin, Moritz Schappler, Torsten Lilge and Marvin Becker
- EduRobot Taxonomy: A Provisional Schema for Classifying Educational Robots (#1)
  Dave Catlin, Martin Kandilhofer and Stephanie Holmquist

12:00-13:00 Lunch break

13:00-14:15 ECER Session: 4 talks by high school students

14:15-15:00 Poster Session 1: Various Topics

- Case study on physical computing with NodeMCU on summer school (#28)
  Eva Klimeková, Marek Mansell, Karolina Mayerová and Michaela Veselovská
- MOOC on The Art of Grasping and Manipulation in Robotics: Design Choices and Lessons Learned (#27)
  Maria Pozzi, Monica Malvezzi and Domenico Prattichizzo
- Prototyping and Programming a Multipurpose Educational Mobile Robot - NaSSIE (#3)
  Vítor Pinto, João Monteiro, José Gonçalves and Paulo Costa
  Samantha Orlando, Elena Gaudioso and Félix de La Paz
- Using Finite State Automata in Robotics (#38)
  Richard Balogh and David Obdržálek

15:00-15:30 Poster coffee break

15:30-17:30 Technical Session 2: Workshops, Curricula and Evaluation #1
- RobotCraft: The first international collective internship for advanced robotics training (#8)
  Micael Couceiro, André Araújo, Karen Tatarian and Nuno Ferreira
- Multigenerational Collaboration to Create a Community of Practice through Robot Application Development (#23)
  Nahoko Kusaka, Nobuyuki Ueda and Koichi Kondo
- Two-stage Approach for Long-term Motivation of Children to Study Robotics (#30)
  Kateřina Brejchová, Jitka Hodná, Lucie Halodová, Anna Minaeva, Martin Hlinovský and Tomáš Krajník
- University students were creating activities for leisure time robotic lessons with constructionist approach (#41)
  Michaela Veselovská, Karolína Mayerová and Iveta Csicsolová
- Bringing Educational Robotics into the Classroom: Implications of a Robotics Promotion Program (#15)
  Benedikt Breuch and Martin Fislake

From 19:00 Conference Dinner

Thursday, April 19

09:00-09:40 Invited Talk
- Keynote: Understanding Robotics in Education
  Carina Girvan, School of Social Sciences at Cardiff University, UK

09:40-10:20 Technical Session 3: Robotics Technologies
- AMiRo: A Mini Robot as Versatile Teaching Platform (#35)
  Thomas Schöpping, Timo Korthals, Marc Hesse and Ulrich Rueckert
- Teaching with open-source robotic manipulator (#39)
  Luka Čehovin, Anže Rezelj and Danijel Skocaj

10:20-10:40 Coffee break

10:40-12:00 Technical Session 4: Workshops, Curricula and Evaluation #2
- Short Course at Brazilian Robotics Olympiad: Forming Competitors (#14)
  Erika Yanaguibashi, Sarah Sá and Luiz Goncalves
- Improving students’ concepts about Newtonian mechanics using mobile robots (#19)
  Paola Ferrarelli, Wilson Villa, Margherita Attolini, Donatella Cesareni, Federica Micale, Nadia Sansone and Luca Iocchi
• How we can teach Educational Robotics to foster 21st learning skills through PBL, Arduino and S4A? (#44)
  Alexandra Sierra

12:00-13:00 Lunch break

13:00-14:15 Technical Session 5: Cross Topics in Educational Robotics
• iBridge - Participative cross-generational approach with Educational Robotics (#31)
  Georg Jäggle, Markus Vincze, Astrid Weiss, Gottfried Koppensteiner, Wilfried Lepuschitz and Munir Merdan
• Modelling the Driver Assistance Systems using an Arduino Compatible Robot (#36)
  Richard Balogh and Peter Ťapák
• Robotic Trains as an Educational and Therapeutic Tool for Autism Spectrum Disorder Intervention (#21)
  Ahmad Yaser Alhaddad, Hifza Javed, Olcay Connor, Bilikis Banire, Dena Al Thani and John-John Cabibihan

14:15-15:00 Poster Session 2: Various Topics
• Teacher Training in Educational Robotics. An Experience in Southern Switzerland: The PReSO Project (#7)
  Lucio Negrini
• Challenging Intensive Project-Based Education: Short-Term Class on Mobile Robotics with Mechatronic Elements (#17)
  Anton Yudin, Maria Salmina and Vladimir Sukhotskiy
• Educational Robotics to Support Social Relations at School (#18)
  Federica Truglio, Davide Marocco, Orazio Miglino, Michela Ponticorvo and Franco Rubinacci
• How does participation in FIRST LEGO League Robotics Competition impact children's problem-solving process? (#33)
  Xiyan Chen
• Education with robots inspired in biological systems (#5)
  Nuno Ferreira, Fernando Moita, Victor Santos, João Ferreira, João Cândido, Frederico Santos and Marco Silva

15:00-15:30 Poster coffee break

15:30-16:45 Technical Session 6: Programming Environments
• Tailoring a ROS Educational Programming Language Architecture (#6)
  Karen Tatarian, Samuel Pereira, Micael Couceiro and David Portugal
• Visual Language to Control EV3 with ROS (#42)
  Yessica Rosas Cuevas and Jose Herrera Quispe
• Real-time Matlab-Simulink-Lego EV3 framework for teaching Robotics subjects (#24)
  Nicolás Montés, Nuria Rosillo, Marta Covadonga Mora and Lucia Hilario

16:45-17:10 Technical Session 7: Comprehensive View on Educational Robotics #2
• The Robotics Concept Inventory (#40)
  Reinhard Gerndt and Jens Lüssem
17:10-17:30 Closing Session

- Résumé / Outlook on RiE 2019
  Richard Balogh, Angele Giuliano, Wilfried Lepuschitz, David Obdržálek – RiE 2018
  Co-Chairpersons

**Friday, April 20**

08:30-13:00 ECER Finals and Award Ceremony

From 13:00 Cultural Tour - Valletta 2018 Special (optional)

**Information about presentations:**

*Regular paper presentations:* 15-20 minutes plus 5 minutes Q&A
*Short paper presentations:* 7 minutes, to be complemented by discussions with authors next to posters during poster coffee break