Conference Program

Registration for RiE 2019: http://rie2019.info/registration-information/

Wednesday, April 10

08:00-09:00 Registration

09:00-10:00 Opening Session

- Welcome & Introduction
  Richard Balogh, Wilfried Lepuschitz, David Obdržálek – RiE 2019 Co-Chairs
- Keynote: Educational Robotics in the Era of Industry 4.0s
  Igor Verner, Israel Institute of Technology, Israel

10:00-10:20 Coffee break

10:20-12:00 Technical Session 1: Technologies for Educational Robotics
  Session Chair: Richard Balogh

- Turtlebot 3 as a Robotics Education Platform (#26)
  Robin Amsters and Peter Slaets
- SLIM - A Scalable and Lightweight Indoor-navigation MAV as research- and education platform (#33)
  Werner Alexander Isop and Friedrich Fraundorfer
- An Open Solution for a Low-Cost Educational Toy (#51)
  Pavel Petrovič and Jozef Vaško
- Environment Virtualization for Visual Localization and Mapping (#27)
  David Valliente, Yerai Berenguer, Luis Payá, Nuno M. Fonseca Ferreira and Oscar Reinoso

12:00-13:00 Lunch break

13:00-14:10 ECER Session: talks by high school students (2nd floor)

14:10-15:00 Poster Session 1: Various Topics
  Session Chair: Munir Merdan

- Integrating Mathematics and Educational Robotics: Simple Motion Planning (#49)
  Ronald I. Greenberg, George Thiruvathukal and Sara T. Greenberg
Using robots as an educational tool in native language lesson (#29)  
Ariana Milašinčić, Bruna Anđelić, Liljana Pushkar and Ana Sovic Krzic

Cross-Age Mentoring to Educate High-School Students in Digital Design and Production (#15)  
Yuval Walter and Igor Verner

User-driven design of robot costume for child-robot interactions among children with cognitive impairment (#20)  
Luthffi Ismail, Fazah Hanapiah and Francis Wyffels

Evolution of Educational Robotics in Supplementary Education of Children (#38)  
Anton Yudin and Andrey Vlasov

15:00-15:30 Poster coffee break

15:30-17:10 Technical Session 2: Workshops, Curricula and Related Aspects #1  
Session Chair: Igor Verner

- Design and analysis of a robotics day event to encourage the uptake of a career in STEM fields to pre-GCSE students (#56)  
  Shane Trimble, Daniel Brice, Ché Cameron and Michael Cregan
- Robotic Theater: An architecture for Competency Based Learning (#46)  
  Enrique González, John Jairo Páez Rodríguez, Diego Molano and Carlos Parra
- STEAM Approach to Autonomous Robotics Curriculum for High School using the Robobo Robot (#55)  
  Francisco Bellas, Alma Mallo, Martin Naya, Daniel Souto, Alvaro Deibe, Abraham Prieto and Richard Duro
- Project-based learning focused on cross-generational challenges (#57)  
  Georg Jäggle, Munir Merdan, Gottfried Koppensteiner, Christoph Brein, Bernhard Wallisch, Peter Marakovits, Markus Brunn, Wilfried Lepuschitz and Markus Vincze

From 19:00 Conference Dinner at Augustinerkeller Bitzinger  
Augustinerstraße 1, 1010 Vienna

Thursday, April 11

09:30-10:20 Technical Session 3: Programming Environments  
Session Chair: David Obdržálek

- A generalized Matlab/ROS/Robotic Platform framework for teaching Robotics (#30)  
  Nuria Rosillo, Nicolás Montés, João Pedro Alves and Nuno Miguel Fonseca-Ferreira
- Programming a Humanoid Robot with the Scratch Language (#34)  
  Silvia Moros, Luke Wood, Ben Robbins, Kerstin Dautenhahn and Álvaro Castro

10:20-10:50 Coffee break

10:50-12:30 Technical Session 4: Integrating Robotics with School Subjects  
Session Chair: Michael Cregan

- Bringing an educational robot into a basic education math lesson (#1)  
  Janika Leoste and Mati Heidmets
- Inviting teachers to use educational robotics to foster mathematical problem-solving (#16)  
  Vladimir Estivill-Castro
Learning Symmetry with Tangible Robots (#37)
Wafa Johal, Sonia Andersen, Morgane Chevalier, Ayberk Özgür, Francesco Mondada and Pierre Dillenbourg

Lessons from delivering a STEM workshop using educational robots given language limitations (#10)
Daniel Carrillo-Zapata, Chanelle Lee, Krishna Manaswi Digumarti, Sabine Hauert and Corra Boushel

12:30-13:30 Lunch break

13:30-14:50 Technical Session 5: Robotics Competitions
Session Chair: Wilfried Lepuschitz
- Participants’ perceptions about their learning with FIRST LEGO® League Competition – a gender study (#13)
Despoina Schina, Mireia Usart and Vanessa Esteve-Gonzalez
- Young Roboticians’ Challenge - Future with Social Robots, World Robot Summit’s Approach: Preliminary Investigation (#47)
Amy Eguchi
- Robotics League -- an unique online robotics competition (#50)
Pavel Petrovic and Richard Balogh

14:50-15:30 Invited Talk
- Keynote: I will survive!
Gerald Steinbauer, Graz University of Technology, Austria

15:30-16:00 Coffee break

16:00-17:40 Technical Session 6: Workshops, Curricula and Related Aspects #2
Session Chair: Vladimir Estivill-Castro
- On the use of robotics for the development of computational thinking in kindergarten: educational intervention and evaluation (#18)
Evgenia Roussou and Maria Rangoussi
- STEAM robotic puzzles to teach in primary school. A Sustainable City project case (#31)
Francisco Ruíz, Alberto Zapatera and Nicolás Montés
- Technological Literacy through Outreach with Educational Robotics (#32)
Georg Jäggle, Lara Lammer, Hannah Hieber and Markus Vincze
- Robotics Education To and Through College (#48)
Brian Page, Saeedeh Ziaeeifard, Lauren Knop, Mo Rastgaard and Nina Mahmoudian

Friday, April 12

09:00-09:50 Poster Session 2: Various Topics
Session Chair: Munir Merdan
- Educational Robotics in Kindergarten, a case study (#35)
Garyfalia Mantzanidou
- Comparison of LEGO WeDo 2.0 robotic models in two different grades of elementary school (#28)
Michaela Veselovská, Žuzana Kubincová and Karolina Mayerová
• **CREA: An inquiry-based methodology to teach robotics to children** (#54)
  Maria Blancas, Cristina Valero, Anna Mura, Vasiliki Vouloutsi and Paul F.M.J. Verschure

• **First Steps in Teaching Robotics with Drones** (#41)
  Benedikt Breuch and Martin Fislake

• **Educational robotics competitions and involved methodological aspects** (#11)
  Eftychios Christoforou, Panicos Masouras, Pericles Cheng, Sotiris Avgousti, Nikolaos Tsekos, Andreas Panayides and George Georgiou

• **Autonomous Driving Car Competition** (#3)
  João Pedro Alves, Nuno Ferreira, António Valente, Salviano Soares and Vítor Filipe

• **The uncanny valley of the virtual animals** (#23)
  Alexandra Sierra Rativa, Marie Postma and Menno Van Zaanen

09:50-10:20 Poster coffee break

10:20-12:00 Technical Session 7: Cross Topics
  **Session Chair: Richard Balogh**

• **Robots Tutors: Welcome or Ethically Questionable?** (#40)
  Matthijs Smakman and Elly Konijn

• **Teaching Robotics with a Simulator Environment developed for the Autonomous Driving Competition** (#36)
  David Fernandes, Francisco Pinheiro, André Dias, Alfredo Martins, Jose Almeida and Eduardo Silva

• **Setup of a Temporary Makerspace for Children at University: MAKER DAYS for kids 2018** (#21)
  Maria Grandl, Martin Ebner and Andreas Strasser

• **Cyber-physical system security: Position spoofing in a class project on autonomous vehicles** (#45)
  Gregory Lewin

12:00-13:00 Lunch break

13:00-13:50 Technical Session 8: Comprehensive View on Educational Robotics
  **Session Chair: Wilfried Lepuschitz**

• **On Measuring Engagement Level During Child-Robot Interaction in Education** (#17)
  Chris Lytridis, Christos Bazinas, George Papakostas and Vassilis Kaburlasos

• **The effect of commercially available educational robotics: A systematic review** (#24)
  Bjarke Pedersen, Jørgen Larsen and Jacob Nielsen

13:50-14:00 Closing Session

• **Résumé / Outlook on RiE 2020**
  Richard Balogh, Wilfried Lepuschitz, David Obdržálek – RiE 2019 Co-Chairs

**Information about presentations:**

*Regular paper presentations*: 15-20 minutes plus 5 minutes Q&A

*Short paper presentations*: 6 minutes, to be complemented by discussions with authors next to posters during poster coffee break