Wednesday, April 26

08:00-09:00 Registration

09:00-10:30 Opening Session

- Welcome & Introduction
  Richard Balogh, Wilfried Lepuschitz, David Obdržálek, George Sharkov – RiE 2017 Co-Chairpersons; SAP
- Keynote: Teaching Computer Science and Software Engineering for Embedded & Robotics Engineers
  Anthony J. Lattanze, Carnegie Mellon University, USA

10:30-10:45 Coffee break

10:45-12:00 Technical Session 1: Artificial Intelligence, Virtual Environments and Cloud Tools

- eduMorse: an open-source framework for mobile robotics education (#8)
  Daniele De Martini, Andrea Bonandin and Tullio Facchinetti
- Teaching robotics with cloud tools (#17)
  Igor Zubrycki and Grzegorz Granosik
- An open robotics environment motivates students to learn the key concepts of artificial neural networks and reinforcement learning (#4)
  Tapani Toivonen, Ilkka Jormanainen and Markku Tukiainen

12:00-13:10 Lunch break

13:10-14:00 Technical Session 6: Robots as Teachers

- An Elementary Science Class with a Robot Teacher (#18)
  Alex Polishuk and Igor Verner
- Design of robot teaching assistants through multi-modal human-robot interactions (#10)
  Paola Ferrarelli, María T. Lázaro and Luca Iocchi

14:00-15:40 Technical Session 2: Project-based Learning Approaches

- MuseumsBot - An Interdisciplinary Scenario in Robotics Education (#5)
  Tanja Heuer, Ina Schiering and Reinhard Gerndt
- Marine Robotics an Effective Interdisciplinary Approach to Promote STEM Education (#14)
  Saeedeh Ziaeefard and Nina Mahmoudian
Designing Robotics Student Projects from Concept Inventories (#13)
Reinhard Gerndt and Jens Lüssem

Teaching Research Methodologies with a Robot in a CS Lab Course (#35)
Mathias Landhäußer, Sebastian Weigelt and Martin Blersch

15:40-16:00 Coffee break

16:00-18:00 Technical Session 3: Workshops, Curricula and Related Aspects #1

- Teaching Robotics Concepts to Elementary School Children (#21)
  Mor Friebroon Yesharim and Mordechai Ben-Ari
- LEGO WeDo Curriculum for Lower Secondary School (#34)
  Michaela Veselovská and Karolina Mayerová
- The Effect of the Programming Interfaces of Robots in Teaching Computer Languages (#23)
  B. Baransel Bagci, Mustafa Kamasak and Gokhan Ince
- Creativity and contextualization activities in educational robotics to improve engineering and computational thinking (#43)
  Albert Valls Pou, Jordi Albo-Canals and Xavi Canaleta

From 19:00 Conference Dinner at Restaurant: “Pri Orlite” (www.priorlite.com)
Address: 11 “Dyakon Ignatii” Str., 1000 Sofia (Near the National Theatre)
Bus pick-up: 18:30, in front of the main entrance of the incubator

Thursday, April 27

09:00-10:10 Invited Talks

- Keynote: Action Research in Robotics Education
  Igor Verner, Technion – Israel Institute of Technology, Israel
- Robotics for Bulgaria
  Marin Shalamanov and Peter Petrov, SAP Bulgaria

10:10-10:30 Coffee break

10:30-12:10 Technical Session 4: Comprehensive Educational Robotics Activities

- TechColleges – Learn to Teach Using Robots (#7)
  Thomas N. Jambor
- Robotics peer-to-peer teaching summer school project involving university students, summer interns and middle school students (#9)
  Sabrina Rubenzer, Georg Richter and Alexander Hofmann
- Methods for Managing Student-Driven Robotics Research (#11)
  Cem Avsar, Lennart Kryza and Klaus Brieß
- Robotics Education in Saint Petersburg Secondary School (#22)
  Sergey Filippov, Natalia Ten, Alexander Fradkov and Ilya Shirokolobov

12:10-13:00 Lunch break

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

14:00-14:50 Technical Session 5: Workshops, Curricula and Related Aspects #2

- Educational Robotics for Creativity, Communication, Collaboration and Digital Fluency (#46)
  Ivaylo Gueorguiev, Christina Todorova, Pavel Varbanov, George Sharkov, Petar Sharkov, Carina Girvan, Nikoleta Yiannoutsou and Marianthi Grizioti
• Pythagorean Approximations for LEGO: Merging Educational Robot Construction with Programming and Data Analysis (#3)
  Ronald I. Greenberg

14:50-15:30 Poster Session

• Needs, opportunities and constraints on the way to the wide introduction of robotics to teaching at secondary vocational schools (#24)
  Mikuláš Hajduk, Zbigniew Pilat, Adrian D. Olaru and Marek Vagaš

• Open-source robotic manipulator and sensory platform (#39)
  Luka Čehovin Zajc, Anže Rezelj and Danijel Skocaj

• OTO - A DIY Platform for Mobile Social Robots in Education (#49)
  Natan Doms, Thomas Vervish, Sander Descamps, Cesar Vandevelde, Francis Wyffels, Steven Verstockt and Jelle Saldien

• Teaching Robotics for Computer Science Students (#37)
  Vesna Kirandziska and Nevena Ackovska

• Using Robotics to Foster Creativity in Early Gifted Education (#32)
  Tomislav Jagust, Jasna Lay, Ana Sovic Krzic and Damir Sersic

• The Evaluation of Robotics Activities for Facilitating STEM Learning (#20)
  Ronit Ben-Bassat Levy and Mordechai Ben-Ari

15:30-16:00 Poster coffee break

16:00-18:00 Technical Session 7: Technologies for Educational Robotics

• TUC-Bot: A Microcontroller based Robot for Education (#26)
  Sven Lange, Peter Weissig, Andreas Uhlig and Peter Protzel

• Open Source Robotics Course at Engineering: Infrastructure and Methodology (#31)
  Francisco Martín Rico

• The Robobo Project: Bringing Educational Robotics Closer to Real-World Applications (#40)
  Francisco Bellas, Martin Naya, Gervasio Varela, Luis Llamas, Abraham Prieto, J.C. Becerra, Moises Bautista, Richard Duro and Andres Fain

• Architectural Overview and Hedgehog in Use (#44)
  Clemens Koza, Martin Wolff, Daniel Frank, Wilfried Lepuschitz and Gottfried Koppensteiner

• Experiment on Assembling and Exploring Educational Mobile Robot using PVM Framework with Augmented Reality (#25)
  Malek Alrashidi

18:00-18:10 Closing Session

• Résumé / Outlook on RiE 2018
  Richard Balogh, Wilfried Lepuschitz, David Obdržálek, George Sharkov – RiE 2017 Co-Chairpersons

Friday, April 28

08:00-11:00 ECER Finals

11:30-13:00 Award ceremony

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