I. Message from the Conference Chairs

Dear friends and colleagues,

On behalf of the Organizing Committee of the 10th Joint IEEE International Conference on Development and Learning and Epigenetic Robotics (ICDL-EpiRob) we would like to welcome you to this event.

ICDL-EpiRob is the premier gathering of professionals dedicated to the advancement of cognitive and developmental learning. Our community includes researchers from computer science, robotics, psychology and developmental studies united by the interest to understand the processes guiding the construction and evolution of embodied cognitive agents. ICDL-EpiRob is a highly selective conference and it aims to showcase and share the very best interdisciplinary and multidisciplinary research on how humans and animals develop sensing, reasoning and actions. ICDL-EpiRob focuses on the understanding of how biological agents take advantage of interaction with social and physical environments to develop their cognitive capabilities. Moreover, how this knowledge can be used to improve future computing and robotic systems.

ICDL-EpiRob 2020 was to be held for the first time in South America hosted by the local groups active in cognition and robotics. However, the COVID-19 pandemic forced us to cancel the event which was to be held in Valparaiso, one of the most beautiful cities in Chile, and to hold the conference in the cyberspace for the first time.

Despite the change in format and all the difficulties and uncertainties of organizing a conference in the midst of the pandemic, ICDL-EpiRob 2020 was a great success. From the 51 submitted papers, 13 were selected for oral presentations (25% acceptance rate) and 19 for poster presentations (37% acceptance rate). In addition, a set of 13 journal track presentations were also scheduled for presentation. The accepted papers included authors from Australia, Brazil, Chile, China, Czech Republic, France, Italy, Japan, Germany, Mexico, Portugal Sweden, Switzerland, Turkey, UK, USA, and Vietnam.

ICDL-EpiRob hosted 4 plenary speakers: Karen Quigley (Northeastern University, USA), Maja Mataric (University of Southern California, USA), Hideki Kozima (Tohoku University, Japan) and Gianluca Baldassarre (ISTC-CNR, Italy). They provided a truly interdisciplinary view of relevant areas such as affective experience using physiology, personalized embodied systems, epigenesis of social intelligence, and intrinsic motivations from a biological and robotics perspective.

ICDL-EpiRob also hosted 2 tutorials and 2 workshops. The tutorials were hosted by Sinnu Susan Thomas (Indian Institute of Information Technology and Management, India) and Juyang Weng (Michigan State University, USA), on Bayesian Optimization, and Emergent Universal Turing Machines in Developmental Networks, respectively. The workshops Affective Shared Perception and SMILES: Sensorimotor Interaction, Language and Embodiment of Symbols.

We hope attendees enjoyed this unique interdisciplinary conference of development and learning, and we promise to host ICDL-EpiRob's guests more properly with a warm South American hospitality in the future.

Prof. Giulio Sandini Instituto Italiano di Tecnologia

Prof. Javier Ruiz-del-Solar Advanced Mining Technology Center Universidad de Chile