

## Editorial

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At the fifth anniversary of the International Journal of Social Robotics (IJSR), it gives us great pleasure to announce that our journal has established herself as the leading journal for our community (i) to share our innovative results and latest developments in social robotics, (ii) to bring social robots into the social fabric with scientific rigor, technical excellence and artistic appeal, and (iii) to bring diverse research communities across humanity, science, and engineering together to work on something of higher aspiration, demand, and impact.

After years of vigorous research and development, social robotics is gaining more international recognition and support from academy, industry and government. While many programs have established in the related areas of social robotics around the world funded by government and industry, European Cooperation in Science and Technology (COST), which is an European level intergovernmental framework, successfully organized a workshop to discuss and discover “The future concept and reality of Social Robotics: Challenges, Perception and Applications - Role of Social Robotics in current and future society” at Brussels, Belgium, 10–13 June 2013.

Our noble goal is to make robots more sensible, understanding, intelligent yet emotionally attached and co-exist with us. This journey is very challenging, but full of enjoy-

ment, and the support of colleagues and friends. From the bottom of our hearts, we have the following dedications and appreciation to make. Thank the dedication and service from the members of the editorial board for making our journal a leader in social robotics, appreciate the authors and reviewers for their technical contributions and technical rigor to the journal and the field of social robotics, and deepest gratitude to Professor Chang Chieh Hang for his unreserved support and vision in social robotics.

### 1 New Editorial Board Members

We warmly welcome the new editorial board members of IJSR. The renowned research experts in the field, Cecilia Laschi from Scuola Superiore Sant’Anna, Italy, Henrik Schärfe from Aalborg University, Denmark, Ryad Chellali from Instituto Italiano di Tecnologia, Italy, Aude Billard from École Polytechnique Fédérale de Lausanne, Switzerland, Alessandro Saffiotti from Örebro University, Sweden, Monica Nicolescu from University of Nevada, USA, Yaonan Wang from Hunan University, PRC, Martin Smith from Middlesex University London, UK, Ho Seok AHN from the University of Auckland, New Zealand and Agnieszka Wykowska from Ludwig-Maximilians-Universität München, Germany will join the Editorial Board. They bring to the Editorial Board their expertise in Soft Robotics, Biomimetic, Bioinspired Robotics, Cognitive Robotics, Human Robot Interaction and Social Neurosciences.

### 2 Flagship Conference

The 5th International Conference on Social Robotics (ICSR) was successfully held in Bristol, UK, 27–29 October 2013, thanks to the leadership by General Chairs: Guido Her-

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rmany and Alois Knoll, Program Chairs: Martin Pearson and Peter Ford Dominey, and the members of the organizing committee. The theme of this year's ICSR is "Companionship" and focus on the interaction between humans and robots, and the integration of robots.

At the conference, we had two distinguished leaders in the field as plenary speakers. Qiang Huang from Intelligent Robotics Institute, Beijing Institute of Technology, delivered his speech on "motion design and control of BHR Humanoids" with fundamental issues solved, technical problems encountered and a clear vision for future development. Rolf Pfeifer of the Artificial Intelligence Laboratory, University of Zurich, presented a wonderful speech on soft robotics and artificial intelligence with vigor, sense of fulfillments, and the joy of scientific challenges. into our society.

We look forward to seeing you at ICSR 2014, in Sydney, Australia, under the leadership of Mary-Anne Williams.

### 3 Overview of the Papers in this Issue

For this current issue, we are glad to introduce a collection of eight papers which cover a wide range of exciting topics.

The first paper, "Comparative Study of Human Behavior in Card Playing with a Humanoid Playmate", is authored by Min-Gyu Kim and Kenji Suzuki. The authors studied human behaviors in a poker game with a game playing humanoid robot and demonstrate the relationship between card hand strength and betting strategy as well as nonverbal interaction. In addition, engagement assessment of the poker game with the humanoid was given by questionnaire and measurement of nonverbal behaviors.

In the second paper, Rebecca Q. Stafford, Bruce A. MacDonald, Chandimal Jayawardena, Daniel M. Wegner and Elizabeth Broadbent present "Does the Robot Have a Mind? Mind Perception and Attitudes Towards Robots Predict Use of an Eldercare Robot". Their study focuses on finding more about the psychological factors that cause an eldercare robot to be accepted or rejected by the elderly. Through a 2-week eldercare robot feasibility study in a retirement village, they found that the cognitions the elderly hold about robots may influence their decisions to use robots. In addition, participants' subjective self-reports of attitudes towards robots and perceptions of robot mind was found against the objective measure of robot use.

The third paper, "Impressions of Humanoids: The Development of a Measure for Evaluating a Humanoid" is presented by Hiroko Kamide, Tomohito Takubo, Kenichi Ohara, Yasushi Mae and Tatsuo Arai. The authors focus on the perspectives that people use to perceive a humanoid. The basic dimensions of a humanoid evaluation by ordinary peo-

ple are investigated. Besides, they develop a psychological scale called PERNOD (PERception to humaNOiD) which is a humanoid-oriented scale based on basic dimensions. The result of experiment shows that PERNOD comprises five basic dimensions for perceiving humanoid robots. And the reliability of the each sub-scale of PERNOD is statistically high.

In the fourth paper, "A Pilot Study with a Novel Setup for Collaborative Play of the Humanoid Robot KASPAR with Children with Autism" by Joshua Wainer, Kerstin Dautenhahn, Ben Robins and Farshid Amirabdollahian, a study involving an autonomous humanoid robot, KASPAR, participating in a collaborative dyadic video game with children with autism is implemented to observe whether the children would engage in more collaborative behaviors while playing the video game and interacting with the adult than performing the same activities with the humanoid robot. The results show that the children found the activity to be more entertaining, appeared more engaged in playing, and displayed better collaborative behaviors with their partners (human/robotic agent) in the second sessions of playing with human adults than during their first sessions. One way of explaining these findings given by the author is that the children's intermediary play session with the humanoid robot impacted their subsequent play session with the human adult. Besides, another important contribution of the study is to gain experience with the operational limits of the robot as well as the dyadic video game, to determine what changes should be made to the systems.

The fifth paper, "The Uncanny in the Wild. Analysis of Unscripted Human-Android Interaction in the Field" is authored by Astrid M. Rosenthal-von der Putten, Nicole C. Kramer, Christian Becker-Asano, Kohei Ogawa, Shuichi Nishio and Hiroshi Ishiguro. In this paper, authors have investigated how humans react to an android robot in a natural environment. Experimental results obtained were based on unscripted interactions between humans and android robots. This paper has opened up a new perspective on the investigation of human-robot interaction with android robots in the field. The discussions from the paper are in-depth and meaningful for people who plans to integrate robots seamlessly into human society.

The sixth paper, "A Survey on Perception Methods for Human-Robot Interaction in Social Robots" by Haibin Yan, Marcelo H. Ang Jr. and Aun Neow Poo presents a comprehensive review on several widely used perception methods of Human-Robot Interaction (HRI) in social robots. Some representative and well-known social robots are presented and perception methods are reviewed from three aspects: feature extraction, dimensionality reduction and semantic understanding. In the end, the authors have also summarized some key issues to be addressed to ensure a smooth HRI in complex working environment.

The seventh paper, “A Modeling Framework for User-Driven Iterative Design of Autonomous Systems” authored by Manja Lohse, Frederic Siepmann, Sven Wachsmuth proposes a modeling framework for user-driven iterative design of autonomous systems. They interlinked usability research with system development and identified requirements and concepts for a new framework that eases the employment of autonomous robots in the iterative design process.

Last but not the least, the work on “An Investigation of Responses to Robot-Initiated Touch in a Nursing Context”

presented by Tiffany L. Chen, Chih-Hung Aaron King, Andrea L. Thomaz and Charles C. Kemp. The authors demonstrate how people respond to physical human robot interaction. The experiment has shown that the perceived intent of the robot significantly influenced people’s responses. In addition, post-hoc analyses of participants’ galvanic skin responses (GSR), open-ended responses, attitudes towards robots, and responses to a second trial is also discussed in the paper.