

TOYS ROBOTS TO EDUCATE BRAIN DEVELOPMENT OF CHILDREN

DATE: SATURDAY 5 NOVEMBER, 10:15-11:30

VENUE: MIRAIKAN 1F, AGORA STAGE 2

On this stage, **Irini GIANNOPULU** and her Japanese collaborators, **Tomio WATANABE** from Okayama Prefectural University, **Midori SUGAYA** from Shibaura Institute of Technology and **Kazunori TERADA** from Gifu University will present their pioneering research on the use of robots to help children with social and emotional difficulties.

10:15 WELCOME

10:15-10:18 Leonidas KARAPIPERIS
Minister-Counsellor, Head of Science and Technology Section,
Delegation of the EU to Japan

10:20 TALK AND DEMONSTRATION

10:20-10:37 Irini GIANNOPULU, Pierre and Marie Curie University, Paris 6
"InterActor Robot in a Speaker-listener Scenario in Healthy and Autistic Children"

10:37-10:54 Tomio WATANABE, Okayama Prefectural University
"Embodied Communication System for Empathy Interface"

10:54-11:11 Midori SUGAYA, Shibaura Institute of Technology
"Haptic-Virtual Digital Play Therapy for Augmented Cognition"

11:11-11:30 Kazunori TERADA, Gifu University
"Cognitive development of mind-reading and behaviour-reading"

11:30 End



Giannopulu, I. (2013). Multimodal cognitive nonverbal and verbal interactions: the Neurorehabilitation of Autistic children via mobile toy robots. International Journal on Advances in Life Sciences



EN/JP simultaneous interpretation will be provided



Having received her Ph.D. and Dr.Sc Habilitation in Cognitive Neuroscience at Pierre Marie Curie University in Paris, **Irini GIANNOPULU** is working as Associate Professor, qualified to be Professor. In her research, she combines the Cognitive and Clinical Neuroscience with Engineering and Robotics to study verbal and nonverbal multimodal interactions (motor, haptic, visual, emotional) in children with typical and atypical development. She designs specific scenarios to analyse how the brain develops in interaction with virtual reality environments and toy robots. She uses toys robots to neuro education atypical children, children with autism in particular.



Tomio WATANABE is Vice-President and Board Member of Okayama Prefectural University, and a professor at the Department of Systems Engineering, Faculty of Computer Science and Systems Engineering. He was the project leader of Core Research for Evolutional Science and Technology (CREST) from the Japan Science and Technology Agency (JST) from 2000 to 2005. He developed the embodied interaction and communication technology such as “E-COSMIC: Embodied Communication System for Mind Connection”, and was also the project leader of the project “Generation and Control Technology of Human-entrained Embodied Media” of JST CREST from 2006 to 2012.



Midori SUGAYA currently undertakes research and development on novel digital play therapy and uses devices with a haptic virtual approach, especially for children suffering from learning and developmental disorders to develop their social skills. She is Associate Professor in the Department of Information Science and Engineering, Faculty of Engineering at Shibaura Institute of Technology.



Kazunori TERADA is an Associate Professor of Informatics at Faculty of Engineering, Gifu University. He received his B.E. degree in Precision Engineering from Osaka University, Japan, in 1995. He received the M.E. and Ph.D. in Engineering from Nara Institute of Science and Technology, Japan, in 1997 and 2001. His current research interests include artificial intelligence, social robot, theory of mind, and emotion. He is a member of IEEE and ACM.

Other sessions and exhibitions by the EU in Science Agora 2016:

1. **Inauguration: European Participation in Science Agora 2016**
Date: Friday 4 Nov, 10:30-12:00 / Venue: Miraikan 1F, Agora Stage 1
2. **Booth: Europa Science House**
Dates: Thursday 3 – Sunday 6 Nov, 10:00-17:00* / Venue: Miraikan 1F Booth Aa-013 *10:00-16:00 on Sunday 6 November
3. **Agora Keynote Session: Arts, Science, Technology and Creativity**
Date: Saturday, 5 Nov, 15:30-17:00 / Venue: JASSO 3F, International Conference Hall
4. **Agora Session: Muography - an Unprecedented Imaging Technique to Visualise Volcanoes**
Date: Sunday 6 Nov, 10:30-12:00 / Venue: JASSO 3F, International Conference Hall
5. **Talk and Demonstration: Novel ways Vocal Sounds can Create Emotions**
Date: Saturday 5 Nov, 11:45-13:00 / Venue: Miraikan 1F, Agora Stage 2
6. **Talk and Demonstration: Honouring Arts and Science Synergies for Innovation: The STARTS Prize**
Date: Saturday 5 Nov, 13:15-14:30 / Venue: Miraikan 1F, Agora Stage 2

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For enquiries about EU's participation, please contact: DELEGATION-JAPAN-ST@eeas.europa.eu
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