MoA1: 8:45-10:00 Horace Mann 138

Robots for Physical Rehabilitation (Regular Session)

Chair: Sho Yokota — Toyo Univ.

08:45-08:57 MoA1.1

A Robotic Coach Architecture for Multi-User Human-Robot Interaction (RAMU) with the Elderly and Cognitively Impaired

Jing Fan — Vanderbilt Univ.
Linda Beuscher — Vanderbilt Univ.
Paul A. Newhouse — Vanderbilt Univ.
Lorraine C. Mion — Vanderbilt Univ.
Nilanjan Sarkar — Vanderbilt Univ.

08:57-09:09 MoA1.2

Data-Driven Haptic Perception for Robot-Assisted Dressing

Ariel Kapusta — Georgia Inst. of Tech.
Wenhao Yu — Georgia Inst. of Tech.
Tapomayukh Bhattacharjee — Georgia Inst. of Tech.
Karen Liu — Georgia Inst. of Tech.
Greg Turk — Georgia Inst. of Tech.
Charlie Kemp — Georgia Inst. of Tech.

09:09-09:21 MoA1.3

Design of a Bath Robot System – User Definition and User Requirements Based on International Classification of Functioning, Disability and Health (ICF)

Jochen Werle — Univ. of Heidelberg, Agaplesion Bethanien Hospital
Klaus Hauer — Univ. of Heidelberg, Agaplesion Bethanien Hospital

09:21-09:33 MoA1.4

Design of an Accompanying Humanoid as a Walking Trainer for the Elderly

Chiara Piezzo — Univ. of Tsukuba
Kenji Suzuki — Univ. of Tsukuba

09:33-09:45 MoA1.5

Robotic Repositioning of Human Limbs Via Model Predictive Control

Kevin Chow — Georgia Inst. of Tech.
Charlie Kemp — Georgia Inst. of Tech.

09:45-09:57 MoA1.6

The Ethics of Deploying a Robot – Examples from a Mobile Service Robot at a Care Site for Older Patients

Tobias Körtner — Academy for Research on Aging
Denise Hebesberger — Academy for Research on Aging
Christoph Gisinger — Danube Univ. Krems

MoA2: 8:45-10:00 Horace Mann 150

Failure and Trust in Human-Robot Interaction (Regular Session)

Chair: Kerstin Fischer — Univ. of Southern Denmark

08:45-08:57 MoA2.1

Analysis of Reactions Towards Failures and Recovery Strategies for Autonomous Robots

Daniel Brooks — UMass Lowell
Momotaz Begum — UMass Lowell
Holly Yanco — UMass Lowell

08:57-09:09 MoA2.2

Believing in BERT: Using Expressive Communication to Enhance Trust and Counteract Operational Error in Physical Human-Robot Interaction

Adriana Hamacher — UCL
Nadia Berthouze — UCL
Tony Pipe — Univ. of the West of England
Kerstin Eder — Univ. of Bristol

09:09-09:21 MoA2.3

Errare Humanum Est: Erroneous Robots in Human-Robot Interaction

Marco Ragni — Univ. of Freiburg
Andrey Rudenko — Univ. of Freiburg
Barbara Kuhnert — Univ. of Freiburg
Kai Oliver Arras — Univ. of Freiburg

09:21-09:33 MoA2.4

Just Follow the Suit! Trust in Human-Robot Interactions During Card Game Playing

Filipa Correia	INESC-ID, Univ. of Lisbon
Patrícia Alves-Oliveira	INESC-ID, Univ. of Lisbon
Nuno Maia	INESC-ID, Univ. of Lisbon
Tiago Ribeiro	INESC-ID, Univ. of Lisbon
Sofia Petisca	INESC-ID, Univ. of Lisbon
Francisco S. Melo	INESC-ID, Univ. of Lisbon
Ana Paiva	INESC-ID, Univ. of Lisbon

09:33-09:45 MoA2.5

Perceived Role of Physiological Sensors Impacts Trust and Reliance on Robots

Monika Lohani	Yale Univ.
Charlene Stokes	Air Force Research Lab
Marissa McCoy	Yale Univ.
Christopher Bailey	Yale Univ.
Aditi Joshi	Yale Univ.
Susan Rivers	Yale Univ.

09:45-09:57 MoA2.6

Playing the 'Trust Game' with Robots: Social Strategies and Experiences

Roberta Cabral Ramos Mota	Univ. of Calgary
Daniel J. Rea	Univ. of Manitoba
Anna Tran	Univ. of Calgary
James Everett Young	Univ. of Manitoba
Ehud Sharlin	Univ. of Calgary
Mario Costa Sousa	Univ. of Calgary

MoA3: 8:45-10:00 Milbank Chapel (Zankel 125)

Interaction with Children (Regular Session)

Chair: Iolanda Iacono Univ. of Siena

08:45-08:57 MoA3.1

Autonomous Disengagement Classification and Repair in Multiparty Child-Robot Interaction

Iolanda Leite	Disney Research
Marissa McCoy	Yale Univ.
Monika Lohani	Yale Univ.
Nicole Salomons	Yale Univ.
Kara McElvaine	Yale Center for Emotional Intelligence
Charlene Stokes	Air Force Research Lab
Susan Rivers	Yale Univ.
Brian Scassellati	Yale Univ.

08:57-09:09 MoA3.2

Child-Robot Spatial Arrangement in a Learning by Teaching Activity

Wafa Johal	EPFL
Alexis Jacq	EPFL
Ana Paiva	INESC-ID, Univ. of Lisbon
Pierre Dillenbourg	EPFL

09:09-09:21 MoA3.3

Children's Peer Assessment and Self-Disclosure in the Presence of an Educational Robot

Shruti Chandra	IST/EPFL
Patrícia Alves-Oliveira	INESC-ID, Univ. of Lisbon
Séverin Lemaignan	Plymouth Univ.
Pedro Sequeira	INESC-ID, IST, Univ. of Lisbon
Ana Paiva	INESC-ID, Univ. of Lisbon
Pierre Dillenbourg	EPFL

09:21-09:33 MoA3.4

Evaluation Methods for User-Centered Child-Robot Interaction

Vicky Charisi	Univ. of Twente
Daniel Davison	Univ. of Twente
Dennis Reidsma	Univ. of Twente
Vanessa Evers	Univ. of Amsterdam

09:33-09:45 MoA3.5

Improving Human-Human Collaboration between Children with a Social Robot

Sarah Strohkorb	Yale Univ.
Ethan Fukuto	Pomona College
Natalie Warren	Yale Univ.
Charles Taylor	Yale Univ.
Bobby Berry	Yale Univ.
Brian Scassellati	Yale Univ.

09:45-09:57 MoA3.6

Study of Children's Hugging for Interactive Robot Design

Joohyung Kim	Disney Research
Alexander Alspach	Disney Research
Iolanda Leite	Disney Research
Katsu Yamane	Disney Research

MoB1: 10:30-11:45 Horace Mann 138
Navigating in Human Environments (Regular Session)

Chair: TBD

10:30-10:42 MoB1.1

Anticipatory Robot Path Planning in Human Environments

Akansel Cosgun	Honda Research Inst.
Emrah Akin Sisbot	Toyota Info Tech. Ctr.
Henrik Iskov Christensen	Georgia Inst. of Tech.

10:42-10:54 MoB1.2

Incorporating Perception Uncertainty in Human-Aware Navigation: A Comparative Study

Zeynab Talebpour	EPFL
Deepak Geetha Viswanathan	Univ. of Amsterdam
Rodrigo Ventura	Univ. of Lisbon
Alcherio Martinoli	Univ. of Twente
Gwenn Englebienne	EPFL

10:54-11:06 MoB1.3

Performance of a Low-Cost, Human-Inspired Perception Approach for Dense Moving Crowd Navigation

Ishani Chatterjee	Carnegie Mellon Univ.
Aaron Steinfeld	Carnegie Mellon Univ.

11:06-11:18 MoB1.4

Qualitative Constraints for Human-Aware Robot Navigation Using Velocity Costmaps

Christian Dondrup	Heriot-Watt Univ.
Marc Hanheide	Univ. of Lincoln

11:18-11:30 MoB1.5

The Influence of Following Angle on Performance Metrics of a Human-Following Robot

Shanee Honig	Ben-Gurion Univ.
dror katz	Ben-Gurion Univ.
Tal Oron-Gilad	Ben-Gurion Univ.
Yael Edan	Ben-Gurion Univ.

11:30-11:42 MoB1.6

Towards an Integrated and Human-Friendly Path Following and Obstacle Avoidance Behaviour for Robots

Camilla Bassani	Univ. of Genova
Antonello Scalmato	Univ. of Genova
Fulvio Mastrogiovanni	Univ. of Genova
Antonio Sgorbissa	Univ. of Genova

MoB2: 10:30-11:45 Horace Mann 150
Robotic Mediators (Regular Session)

Chair: Ana Paiva — INESC-ID and Instiuto Superior Técnico, Technical Univ. of Lisbon

10:30-10:42 MoB2.1

Can You Feel Me?: How Embodiment Levels of Telepresence Systems Affect Presence

Jung Ju Choi	Ewha Womans Univ.
Sonya Sona Kwak	Ewha Womans Univ.

10:42-10:54 MoB2.2

Designing User Interfaces for Different User Groups: A Three-Way Teleconference System for Doctors, Patients and Assistants Using a Remote Medical Robot

Gerald Stollnberger	Univ. of Salzburg
Manuel Giuliani	Univ. of Salzburg
Nicole Mirnig	Univ. of Salzburg
Manfred Tscheligi	Univ. of Salzburg
Krzysztof Arent	Wrocław Univ. of Tech.
Kreczmer Bogdan	Wrocław Univ. of Tech.
Filip Grzeszczak	Wrocław Univ. of Tech.
Dorota Szczesniak-Stanczyk	Medical Univ. of Lublin
Zarczuk Radoslaw	Medical Univ. of Lublin
Andrzej Wysokinski	Medical Univ. of Lublin

10:54-11:06 MoB2.3

Evaluating a Mobile Spontaneous Eye Blink Tracker for Use in Tele-Presence HRI As a Low Bandwidth Social Communicative Cue

Chris Bevan	Univ. of Bath
Danaë Stanton Fraser	Univ. of Bath

11:06-11:18 MoB2.4

Humanoid Robot Avatars: An 'In the Wild' Usability Study

Paul Bremner	Univ. of the West of England
Miriam Koschate	Univ. of Exeter
Mark Levine	Univ. of Exeter

11:18-11:30 MoB2.5

Imitating Human Movement with Teleoperated Robotic Head

Priyanshu Agarwal — Univ. of Texas at Austin
Samer Al Moubayed — Walt Disney Imagineering
Alexander Alspach — Disney Research
Joohyung Kim — Disney Research
Elizabeth Carter — The Walt Disney Company
Jill Lehman — Disney Research
Katsu Yamane — Disney Research

11:30-11:42 MoB2.6

Immersed Remotely: Evaluating the Use of Head Mounted Devices for Remote Collaboration in Robotic Telepresence

Kratz Sven — FX Palo Alto Laboratory
Fred Rabelo Ferreira — Columbia Univ.

MoB3: 10:30-11:45 Milbank Chapel (Zankel 125)

Implicit Human-Robot Communication (Regular Session)

Chair: TBD

10:30-10:42 MoB3.1

Between Legibility and Contact: The Role of Gaze in Robot Approach

Kerstin Fischer — Univ. of Southern Denmark
Lars Christian Jensen — Univ. of Southern Denmark
Daniel Suvei — Univ. of Southern Denmark
Leon Bodenhagen — Univ. of Southern Denmark

10:42-10:54 MoB3.2

Enhancing Human Understanding of a Mobile Robot's State and Actions Using Expressive Lights

Kim Baraka — Carnegie Mellon Univ.
Stephanie Rosenthal — Carnegie Mellon Univ.
Manuela Veloso — Carnegie Mellon Univ.

10:54-11:06 MoB3.3

Evaluating Intent-Expressive Robot Arm Motion

Christopher Bodden — Univ. of Wisconsin–Madison
Bilge Mutlu — Univ. of Wisconsin–Madison
Michael Gleicher — Univ. of Wisconsin–Madison

11:06-11:18 MoB3.4

Follow Me: Communicating Intentions with a Spherical Robot

Miguel Faria — INESC-ID, Univ. of Lisbon
Andrea Costigliola — INESC-ID, Univ. of Lisbon
Patrícia Alves-Oliveira — INESC-ID, Univ. of Lisbon
Ana Paiva — INESC-ID, Univ. of Lisbon

11:18-11:30 MoB3.5

Investigating the Effects of Robotic Motion on Worker's Behavior in Cooperative Working Environments

Adrian Böckenkamp — TU Dortmund Univ.
Frank Weichert — TU Dortmund Univ.
Gerhard Rinkenauer — Leibniz Association

11:30-11:42 MoB3.6

Postures of a Robot Arm - Window to Robot Intentions?

Sridatta Chatterjee — Ben-Gurion Univ.
Oren Shriki — Ben-Gurion Univ.
Idit Shalev — Ben-Gurion Univ.
Tal Oron-Gilad — Ben-Gurion Univ.

MoC1: 13:00-14:12 Horace Mann 138

SS: Child-Robot Interaction (Special Session)

Chair: Hea Won Park — MIT

13:00-13:12 MoC1.1

A Study on the Relationship between Robotic Movement with Animacy and Visual Attention of Young Children

Jaeryoung Lee — Chubu Univ.
Hirofumi Aoki — Nagoya Univ.
Dimitar Stefanov — Middlesex Univ.
Takahiro Yamamoto — Nagoya Univ.
Goro Obinata — Nagoya Univ.

13:12-13:24 MoC1.2

Effects of Framing a Robot As a Social Agent or As a Machine on Children's Social Behavior

Jacqueline Kory Westlund	MIT
Marayna Martinez	MIT
Maryam Archie	MIT
Madhurima Das	MIT
Cynthia Breazeal	MIT

13:24-13:36 MoC1.3

Robotic Behavioral Intervention to Facilitate Eye Contact and Reading Emotions of Children with Autism Spectrum Disorders

Sang-Seok Yun	KIST
Jongsuk Choi	KIST
Sung-Kee Park	KIST

13:36-13:48 MoC1.4

Increasing the Efficacy of Rehabilitation Protocols for Children Via a Robotic Playmate Providing Real-Time Corrective Feedback

Sergio García-Vergara	Georgia Inst. of Tech.
LaVonda Brown	Georgia Inst. of Tech.
Yu-ping Chen	Georgia State Univ.
Ayanna Howard	Georgia Inst. of Tech.

13:48-14:00 MoC1.5

Should Robots Win or Lose? Robot's Losing Playing Strategy Positively Affects Child Learning

Kairat Balkibekov	Nazarbayev Univ.
Serik Meiirbekov	Nazarbayev Univ.
Nazgul Tazhigaliyeva	Nazarbayev Univ.
Anara Sandygulova	Nazarbayev Univ.

14:00-14:12 MoC1.6

Using Robots to Interview Children about Bullying: Lessons Learned from an Exploratory Study

Cindy L. Bethel	Mississippi State Univ.
Zachary Henkel	Mississippi State Univ.
Kristen Stives	Mississippi State Univ.
David C. May	Mississippi State Univ.
Deborah Eakin	Mississippi State Univ.
Melinda Pilkinton	Mississippi State Univ.
Alexis Jones	Mississippi State Univ.
Megan Stubbs-Richardson	Mississippi State Univ.

MoC2: 13:00-14:00 Horace Mann 150

Emotional Interaction (Regular Session)

Chair: TBD

13:00-13:12 MoC2.1

A Thermal Emotion Classifier for Improved Human-Robot Interaction

Laura Boccanfuso	Yale Univ.
Quan Wang	Yale Univ.
Iolanda Leite	Walt Disney Imagineering
Beibin Li	Yale Univ.
Colette Torres	Duke Univ.
Lisa Chen	Mt. Holyoke College
Nicole Salomons	Yale Univ.
Claire Foster	Yale Univ.
Erin Barney	Yale Univ.
Yeojin Amy Ahn	Yale Univ.
Brian Scassellati	Yale Univ.
Frederick Shic	Yale Univ.

13:12-13:24 MoC2.2

Baseline CNN Structure Analysis for Facial Expression Recognition

Minchul Shin	KAIST
Munsang Kim	KIST
Dong-Soo Kwon	KAIST

13:24-13:36 MoC2.3

Emotional Sharing Behavior for a Social Robot in a Competitive Setting

Sofia Petisca	INESC-ID, Univ. of Lisbon
João Dias	INESC-ID, Univ. of Lisbon
Patrícia Alves-Oliveira	INESC-ID, Univ. of Lisbon
Ana Paiva	INESC-ID, Univ. of Lisbon

13:36-13:48 MoC2.4

Improving the Predictive Performance of SAFEL: A Situation-Aware Fear Learning Model

Caroline Rizzi	Univ. of Kent
Colin Graeme Johnson	Univ. of Kent
Patricia A. Vargas	Heriot Watt Univ.

13:48-14:00	MoC2.5
Who Is in Charge? Sense of control and robot anxiety in Human-Robot Interaction	
Adeline Chanseau	Univ. of Hertfordshire
Kerstin Dautenhahn	Univ. of Hertfordshire
Kheng Lee Koay	Univ. of Hertfordshire
Maha Salem	Univ. of Hertfordshire

MoC3: 13:00-14:00	Milbank Chapel (Zankel 125)
Ethics, Morality, and Judgment (Regular Session)	
Chair: Friederike Eyssel	Univ. of Bielefeld
13:00-13:12	MoC3.1
A Model of a Robot's Will Based on Higher-Order Desires	
Felix Lindner	Univ. of Freiburg
13:12-13:24	MoC3.2
Anticipating Our Future Robotic Society: The Evaluation of Future Robot Applications from a User's Perspective	
Maartje M. A. de Graaf	Univ. of Twente
Somaya Ben Allouch	Saxion Univ.
13:24-13:36	MoC3.3
Human Body Schema Exploration: Analyzing Design Requirements of Robotic Hand and Leg Illusions	
Philipp Beckerle	Tech. Univ. Darmstadt
Albert De Beir	Vrije Univ. Brussel
Tim Schürmann	Tech. Univ. Darmstadt
Emilie Caspar	Univ. Libre de Bruxelles
13:36-13:48	MoC3.4
Let's Be Honest: A Controlled Field Study of Ethical Behavior in the Presence of a Robot	
Jodi Forlizzi	Carnegie Mellon Univ.
Thidanun Saensuksopa	Carnegie Mellon Univ.
Natalie Michele Salaets	System Planning Corp.
Michael Shomin	Carnegie Mellon Univ.
Tekin Mericli	Carnegie Mellon Univ.
Guy Hoffman	Carnegie Mellon Univ.

13:48-14:00	MoC3.5
Moral Judgments of Human vs. Robot Agents	
John Voiklis	Brown Univ.
Boyoung Kim	Brown Univ.
Corey Cusimano	Univ. of Pennsylvania
Bertram Malle	Brown Univ.