TuA1 8:45-10:00 Horace Mann 138

Designing Robots for Day-to-Day Environments

(Regular Session)

Chair: Mark Neerincx — TNO

08:45-08:57 TuA1.1

A Participatory Design for Enhancing the Work Environment of Therapists of Disabled Children

Igor Zubrycki	Lodz Univ. of Tech.
Marcin Mariusz Kolesinski	Lodz Univ. of Tech.
Grzegorz Granosik	Lodz Univ. of Tech.

08:57-09:09 TuA1.2

Evaluation of Physical Marker Interfaces for Protecting Visual Privacy from Mobile Robots

Matthew Rueben	Oregon State Univ.
Frank Bernieri	Oregon State Univ.
Cindy Grimm	Oregon State Univ.
William Smart	Oregon State Univ.

09:09-09:21 TuA1.3

Ghost Driver: A Field Study Investigating the Interaction between Pedestrians and Driverless Vehicles

Dirk Rothenbuecher	Stanford Univ.
Jamy Li	Stanford Univ.
David Sirkin	Stanford Univ.
Brian Mok	Stanford Univ.
Wendy Ju	Stanford Univ.

09:21-09:33 TuA1.4

Implicit Robot Selection for Human Multi-Robot Interaction in Search and Rescue Missions

Jonathan Cacace	Univ. of Naples
Alberto Finzi	Univ. of Naples
Vincenzo Lippiello	Univ. of Naples

09:33-09:45 TuA1.5

Prototyping Realistic Long-Term Human-Robot Interaction for the Study of Agent Migration

Kheng Lee Koay	Univ. of Hertfordshire
Dag Sverre Syrdal	Univ. of Hertfordshire
Wan Ching Ho	Univ. of Hertfordshire
Kerstin Dautenhahn	Univ. of Hertfordshire

09:45-09:57 TuA1.6

The Role That an Educational Robot Plays

Patrícia Alves-Oliveira	INESC-ID, Univ. of Lisbon
Pedro Sequeira	INESC-ID, Univ. of Lisbon
Ana Paiva	INESC-ID, Univ. of Lisbon

TuA2 08:45-10:00 Horace Mann 150

Robots for Social and Cognitive Rehabilitation

(Regular Session)

Chair:
David Feil-Seifer — Univ. of Nevada, Reno

08:45-08:57 TuA2.1

A Huggable, Mobile Robot for Developmental Disorder Interventions in a Multi-Modal Interaction Space

Andrea Bonarini	Politecnico di Milano
Franca Garzotto	Politecnico di Milano
Mirko Gelsomini	MIT Media Lab, Politecnico di Milano
Maximiliano Romero	Politecnico di Milano
Francesco Clasadonte	Politecnico di Milano
Ayse Celebi	Politecnico di Milano

08:57-09:09 TuA2.2

Advantages of Indirect Conversation Via a Desktop Humanoid Robot: Case Study on Daily Life Guidance for Adolescents with Autism Spectrum Disorders

Jiro Shimaya	Osaka Univ.
Yuichiro Yoshikawa	Osaka Univ.
Yoshio Matsumoto	AIST
Hirokazu Kumazaki	Univ. of Fukui
Hiroshi Ishiguro	Osaka Univ.
Masaru Mimura	Keio Univ.
Masutomo Miyao	Donguri Psycho Developmental Clinic for Developmental Disorder

09:09-09:21 TuA2.3

An Approach to Facilitate Turn-Taking Behavior with Paired Devices for Children with Autism Spectrum Disorder

Eleuda Nuñez	Univ. of Tsukuba
Soichiro Matsuda	Keio Univ.
Masakazu Hirokawa	Univ. of Tsukuba
Junichi Yamamoto	Keio Univ.
Kenji Suzuki	Univ. of Tsukuba

09:21-09:33 TuA2.4

Design of a Robotic Agent that Measures Smile and Facing Behavior of Children with Autism Spectrum Disorder

Masakazu Hirokawa	Univ. of Tsukuba
Atsushi Funahashi	Aichi Human Service Center
Yadong Pan	Univ. of Tsukuba
Yasushi Itoh	Aichi Human Service Center
Kenji Suzuki	Univ. of Tsukuba

09:33-09:45 TuA2.5

Joint Attention Using Human-Robot Interaction: Impact of Sensory Preferences of Children with Autism

Pauline Chevalier	ENSTA-ParisTech
Jean-Claude Martin	Univ. of Paris-Sud
Brice Isableu	Univ. of Paris-Sud
Christophe Bazile	Groupement des Associations Partenaires de l'Action Sociale
David-Octavian Iacob	ENSTA-ParisTech
Adriana Tapus	ENSTA-ParisTech

09:45-09:57 TuA2.6

Robot-based Therapeutic Protocol for Training Children with Autism

S. Mohammad Mavadati	Univ. of Denver
Howard Feng	Univ. of Denver
Michelle Salvador	Univ. of Denver
Sophia Silver	Univ. of Denver
Anibal Gutierrez	Florida Int'l. Univ.
Mohammad Mahoor	Univ. of Denver

TuA3 8:45-10:00 Milbank Chapel (Zankel 125)

Human-Robot Teaming (Regular Session)

Chair: TBD

08:45-08:57 TuA3.1

Analysis of Empirical Results on Argumentation-Based Dialogue to Support Shared Decision Making in a Human-Robot Team

Mohammad Azhar	City Univ. of New York
Elizabeth Sklar	King's College London

08:57-09:09 TuA3.2

Attentional Supervision of Human-Robot Collaborative Plans

Riccardo Caccavale	Univ. of Naples
Jonathan Cacace	Univ. of Naples
Michelangelo Fiore	LAAS-CNRS
Rachid Alami	LAAS-CNRS
Alberto Finzi	Univ. of Naples

09:09-09:21 TuA3.3

Size-Weight Illusion in Human-Robot Collaboration

Jonas Schmidtler	Tech. Univ. Munich
Klaus Bengler	Tech. Univ. Munich

09:21-09:33 TuA3.4

Task Space HRI for Cooperative Mobile Robots in Fit-Out Operations Inside Ship Superstructures

Rasmus S. Andersen	Aalborg Univ.
Simon Bøgh	Aalborg Univ.
Thomas B. Moeslund	Aalborg Univ.
Ole Madsen	Aalborg Univ.

09:33-09:45 TuA3.5

The PHARAOH Procedure Execution Architecture for Autonomous Robots or Collaborative Human-Robot Teams

Stephen Hart	TRACLabs, Inc.
James Kramer	Univ. of Notre Dame
Seth Gee	TRACLabs, Inc.
Robert R. Burridge	TRACLabs, Inc.

09:45-09:57 TuA3.6

Toward Specifying Human-Robot Collaboration with Composite Events

Jan Van den Bergh	UHasselt
Fredy Cuenca Lucero	UHasselt
Kris Luyten	UHasselt
Karin Coninx	UHasselt

TuB1 13:00-14:15 Horace Mann 138

Touch (Regular Session)

Chair:
Daisuke Chugo Kwansei Gakuin Univ.

13:00-13:12	TuB1.1
Exploring Elicitation Frequency of Learning-Sensitive Information by a Robotic Tutor for Interactive Personalization	
Caitlyn Clabaugh	Univ. of Southern California
Maja Mataric	Univ. of Southern California
13:12-13:24	TuB1.2
Expressive touch: control of robot emotional expression by touch	
Uriel Martinez-Hernandez	Univ. of Leeds
Tony J Prescott	Univ of Sheffield
13:24-13:36	TuB1.3
Getting in Touch: How Imagined, Actual, and Physical Contact Affect Evaluations of Robots	
Ricarda Wullenkord	Bielefeld Univ.
Marlena Fraune	Indiana Univ.
Friederike Eyssel	Bielefeld Univ.
Selma Sabanovic	Indiana Univ.
13:36-13:48	TuB1.4
Post-Contact, In-Hand Object Motion Compensation for Compliant and Underactuated Hands	
Minas Liarokapis	Yale Univ.
Aaron Dollar	Yale Univ.
13:48-14:00	TuB1.5
Touch Recognition and Learning from Demonstration (LfD) for Collaborative Human-Robot Firefighting Teams	
Wallace Lawson	Naval Research Lab.
Keith Sullivan	Naval Research Lab.
Cody Narber	Naval Research Lab.
Esube T. Bekele	Naval Research Lab.
Laura M. Hiatt	Naval Research Lab.
14:00-14:12	TuB1.6
Tuning Interaction in Motion Planning with Contact	
Nassime Michel Blin	LAAS-CNRS, LGP-ENIT
Michel Taïx	LAAS-CNRS, Univ. Paul Sabatier
Philippe Fillatreau	ENIT
Jean-Yves Fourquet	ENIT

TuB2 13:00-14:15	Horace Mann 150
Domestic and Physical Assistance (Regular Session)	
Chair: Kazuyoshi Wada	Tokyo Metropolitan Univ.
13:00-13:12	TuB2.1
Automated Incline Detection for Assistive Powered Wheelchairs	
Mahdieh Nejati Javaremi	Northwestern Univ.
Brenna Argall	Northwestern Univ.
13:12-13:24	TuB2.2
Comparing Backstories of a Socially Assistive Robot Exercise Buddy for Adolescent Youth	
Katelyn Swift-Spong	Univ. of Southern California
Cheng K. Fred Wen	Univ. of Southern California
Donna Spruijt-Metz	Univ. of Southern California
Maja Mataric	Univ. of Southern California
13:24-13:36	TuB2.3
Designing Vyo, a Robotic Smart Home Assistant: Bridging the Gap between Device and Social Agent	
Michal Luria	IDC Herzliya
Guy Hoffman	Cornell Univ.
Benny Megidish	IDC Herzliya
Oren Zuckerman	IDC Herzliya
Sung Park	SK Telecom
13:36-13:48	TuB2.4
Optimizing Social Interaction between Robotic Wheelchairs and Caregivers in Side-By-Side Mode	
Vinh Nguyen The	Unitec Inst. of Tech.
Chandimal Jayawardena	Unitec Inst. of Tech.
13:48-14:00	TuB2.5
Real-Time Placement of a Wheelchair-Mounted Robotic Arm	
Pooya Abolghasemi	Univ. of Central Florida
Rouhollah Rahmatizadeh	Univ. of Central Florida
Aman Behal	Univ. of Central Florida
Ladislau Boloni	Univ. of Central Florida

14:00-14:12 TuB2.6

Toward a Robotic Attendant Adaptively Behaving According to Human State

Shuji Oishi — Toyohashi Univ. of Tech.
Yoshiki Kohari — Toyohashi Univ. of Tech.
Jun Miura — Toyohashi Univ. of Tech.

TuB3 13:00-14:15 Milbank Chapel (Zankel 125)

Perceptions of and Responses to Robots (Regular Session)

Chair: Selma Sabanovic — Indiana Univ.

13:00-13:12 TuB3.1

Assessment of Robot to Human Instruction Conveyance Modalities across Virtual, Remote and Physical Robot Presence

Paul Robinette — Georgia Inst. of Tech.
Alan Richard Wagner — Georgia Inst. of Tech.
Ayanna Howard — Georgia Inst. of Tech.

13:12-13:24 TuB3.2

Feeling Green: Empathy Affects Perceptions of Usefulness and Intention to Use a Robotic Recycling Bin

Haodan Tan — Indiana Univ.
liping sun — Indiana Univ.
Selma Sabanovic — Indiana Univ.

13:24-13:36 TuB3.3

Prior Behavior Impacts Human Mimicry of Robots

Apurv Suman — Yale Univ.
Rebecca Marvin — Yale Univ.
Elena Corina Grigore — Yale Univ.
Henny Admoni — Carnegie Mellon Univ.
Brian Scassellati — Yale Univ.

13:36-13:48 TuB3.4

The Influence of a Peripheral Social Robot on Self-Disclosure

Michael Pettinati — Georgia Inst. of Tech.
Ronald Arkin — Georgia Inst. of Tech.
Jaeeun Shim — Georgia Inst. of Tech.

13:48-14:00 TuB3.5

Too Big to Be Mistreated? Examining the Role of Robot Size on Perceptions of Mistreatment

Houston Lucas — Univ. of Nevada, Reno
Jamie Poston — Univ. of Nevada, Reno
Nathan Yocum — Univ. of Nevada, Reno
Zachary Carlson — Univ. of Nevada, Reno
David Feil-Seifer — Univ. of Nevada, Reno

14:00-14:12 TuB3.6

What are People's Associations of Domestic Robots?: Comparing Implicit and Explicit Measures

Maartje M. A. de Graaf — Univ. of Twente
Somaya Ben Allouch — Saxion Univ.
Shariff Lutfi — Univ. of Twente

TuC1 16:00-17:15 Horace Mann 138

Modeling Humans (Regular Session)

Chair: TBD

16:00-16:12 TuC1.1

A Multi-View Hand Gesture RGB-D Dataset for Human-Robot Interaction Scenarios

Dadhichi Shukla — Univ. of Innsbruck
Ozgur Erkent — Univ. of Innsbruck
Justus Piater — Univ. of Innsbruck

16:12-16:24 TuC1.2

Embodied Gesture Learning from One-Shot

Maria Eugenia Cabrera — Univ. Simon Bolivar, Purdue Univ.
Juan Wachs — Purdue Univ.

16:24-16:36 TuC1.3

Grasp Taxonomy Based on Force Distribution

Bahareh Abbasi — Univ. of Illinois at Chicago
Ehsan Noohi — Univ. of Illinois at Chicago
Sina Parastegari — Univ. of Illinois at Chicago
Milos Zefran — Univ. of Illinois at Chicago

16:36-16:48 TuC1.4

Modeling the Dynamics of Individual Behaviors for Group Detection in Crowds Using Low-Level Features

Omar Adair Islas Ramírez	Univ. Pierre et Marie Curie
Giovanna Varni	Univ. Pierre et Marie Curie
Mihai Andries	Univ. Pierre et Marie Curie
Raja Chatila	Univ. Pierre et Marie Curie
Mohamed Chetouani	Univ. Pierre et Marie Curie

16:48-17:00 TuC1.5

Person Tracking and Gesture Recognition in Challenging Visibility Conditions Using 3D Thermal Sensing

Ariel Kapusta	Georgia Inst. of Tech.
Patrick Beeson	TRACLabs Inc.

17:00-17:12 TuC1.6

Real-Time Human Detection for Robots Using CNN with a Feature-Based Layered Pre-Filter

Eric Martinson	Toyota InfoTechnology Center
Ganesh Yalla	Toyota InfoTechnology Center

TuC2 16:00-17:15 Horace Mann 150

Healthcare Robots (Regular Session)

Chair:
Manuel Giuliani Univ. of Salzburg

16:00-16:12 TuC2.1

A Learning from Demonstration Framework to Promote Home-based Neuromotor Rehabilitation

Yuanliang Meng	Univ. of Massachusetts Lowell
Christopher Munroe	Univ. of Massachusetts Lowell
Yi-Ning Wu	Univ. of Massachusetts Lowell
Momotaz Begum	Univ. of Massachusetts Lowell

16:12-16:24 TuC2.2

A Novel RCM Mechanism Using Pneumatically Driven Flexible Joint for Laparoscopic Forceps Holder

Sho Yoshida	Tokyo Medical and Dental Univ.
Takahiro Kanno	Tokyo Medical and Dental Univ.
Kenji Kawashima	Tokyo Medical and Dental Univ.

16:24-16:36 TuC2.3

Computational Architecture of a Robot Coach for Physical Exercises in Kinesthetic Rehabilitation

Sao Mai Nguyen	INRIA
Philippe Tanguy	Telecom Bretagne
Olivier Remy-Neris	CHU Brest

16:36-16:48 TuC2.4

Personalizing Object Handover with an Electronic Health Record

Eric Martinson	Toyota InfoTechnology Center
Aaron Blasdel	Tokyo University
Emrah Akin Sisbot	Toyota InfoTechnology Center

16:48-17:00 TuC2.5

User Perceptions of Soft Robot Arms and Fingers for Healthcare

Dong Hyun Kim	Univ. of Auckland
Bruce MacDonald	Univ. of Auckland
Andrew McDaid	Univ. of Auckland
Sadao Kawamura	Ritsumeikan Univ.
Hyejong Kim	Ritsumeikan Univ.
Elliot Thompson Bean	Univ. of Auckland
Forest Fraser	Univ. of Auckland
Elizabeth Broadbent	Univ. of Auckland

17:00-17:12 TuC2.6

User Requirements for a Medical Robotic System: Enabling Doctors to Remotely Conduct Ultrasonography and Physical Examination

Gerald Stollnberger	Univ. of Salzburg
Moser Christiane	Univ. of Salzburg
Manuel Giuliani	Univ. of Salzburg
Susanne Stadler	Univ. of Salzburg
Manfred Tscheligi	Univ. of Salzburg
Dorota Szczesniak-Stanczyk	Medical Univ. of Lublin
Bartlomiej Stanczyk	ACCREA

TuC3: 16:00-17:15 Milbank Chapel (Zankel 125)

SS: Cognitive Interaction Design
(Special Session)

Chair: Kazunori Terada Gifu Univ.
Co-Chair: Seiji Yamada Nat'l Inst. of Informatics

16:00-16:12 TuC3.1

The Effects of Chaos Characteristic and Periodicity of Luminance Change on Animacy Perception

Taiki Inaba Gifu Univ.
Kazunori Terada Gifu Univ.
Hidekazu Fukai Gifu Univ.

16:12-16:24 TuC3.2

How Do People Judge Moral Wrongness in a Robot and in Its Designers and Owners Regarding the Consequences of the Robot's Behaviors?

Takanori Komatsu Meiji Univ.

16:24-16:36 TuC3.3

Emotional Contagion between User and Product Recommendation Virtual Agent

Tetsuya Matsui Nat'l Inst. of Informatics
Seiji Yamada Nat'l Inst. of Informatics

16:36-16:48 TuC3.4

A Study on Controlling Method for an Autonomous Personal Vehicle Based on User's Heart Rate Variability

Taichi Sono Keio Univ.
Kazuhiko Shinozawa Keio Univ.
Michita Imai Keio Univ.

16:48-17:00 TuC3.5

Initial Phase of Agency Identification in Embodied Interaction with Unknown Robot

Takafumi Sakamoto Shizuoka Univ.
Yugo Takeuchi Shizuoka Univ.

17:00-17:12 TuC3.6

Emergence of Joint Attention between Two Robots and Human Using Communication Activity Caused by Synchronous Behaviors

Tetsuo Ono Hokkaido Univ.
Takashi Ichijo Hokkaido Univ.
Nagisa Munekata Hokkaido Univ.