

International Conference on Social Robotics
Doha, Qatar
December 4-7, 2023

<https://icsr23.qa>

*Human-Robot Collaboration:
Sea, Air, Land, Space, and Cyberspace*





Introduction

The 15th International Conference on Social Robotics (ICSR 2023) will bring together researchers and practitioners working on the interaction between humans and intelligent robots and on the integration of social robots into our society.

ICSR 2023 will take place in Doha as a face-to-face conference on December 4-7, 2023. This will be the first time that the conference will be hosted in Qatar and in the Middle East and North Africa region.

The conference welcomes original contributions describing technically rigorous scientific and research advances in the area of social robotics and AI: innovative ideas and concepts, new discoveries and improvements, novel applications on the latest fundamental advances in the core technologies that form the backbone of social robotics as well as distinguished studies and projects pertaining the social robotics and its interaction and impact in our society.

A Brief History

The first ICSR conference was organized as a co-located conference in the Federation of International Robot-Soccer Association in Korea in 2009. ICSR became a stand-alone conference in 2010 in Singapore. Since then, the ICSR series of conferences have been hosted in Amsterdam (Netherlands), Bristol (UK), Chengdu and Qingdao (China), Paris (France), Sydney (Australia), Kansas City and Golden, Colorado (USA), Tsukuba (Japan), Madrid (Spain), and in Florence (Italy). ICSR was co-founded by Professor Shuzhi Sam Ge of the National University of Singapore and Professor John-John Cabibihan of Qatar University.



Attendees' Profiles

The majority of the participants in ICSR conferences have come from Asia, Europe, North America, and Australia. Various research backgrounds have been represented. Beyond the typical attendees with engineering and computer science backgrounds, the conference has attracted attendees with strong research backgrounds in psychology, sociology, philosophy, law, nursing, and industrial design, among others.





ICSR 2023 Theme and Topics of Interest

The theme of this year's conference is **"Human-Robot Collaboration: Sea, Air, Land, Space and Cyberspace"**. The theme emphasizes on all physical and cyberphysical domains where humans and robots collaborate.

ICSR provides researchers and practitioners the opportunity to present and engage in conversations on the latest progress in the field of social robotics and AI for societal applications. The ICSR conferences focus on the interaction between humans and intelligent robots and the integration of robots into our society.

The topics of interest include interactive robots in sea, air, land, space, and cyberspace applications, which include but are not limited to the following:

- Affective and cognitive sciences for socially interactive robots
- Context awareness, expectation, and intention understanding
- Control architectures for social robotics
- Collaborative robots in service applications (in construction, agriculture, etc.)
- Human-robot collaboration and interaction
- Human augmentation, rehabilitation, and medical robots
- Interaction and collaboration among robots, humans, and environments
- Personal robots for the home
- Remotely operated underwater robots
- Robot applications in education, entertainment, and gaming
- Robot ethics in human society
- Robots that can adapt to different users
- Robots to assist the elderly and persons with disabilities
- Robots with personality
- Safety in robots working in human spaces
- Socially assistive robots to improve quality of life
- Social acceptance and impact in the society
- Socially appealing design methodologies
- Subsea robots for exploration, maintenance, and inspection
- Space robotics and applications
- Teleoperation, telepresence and remote interaction
- Virtual assistant avatars
- VR, AR, X-Reality robots



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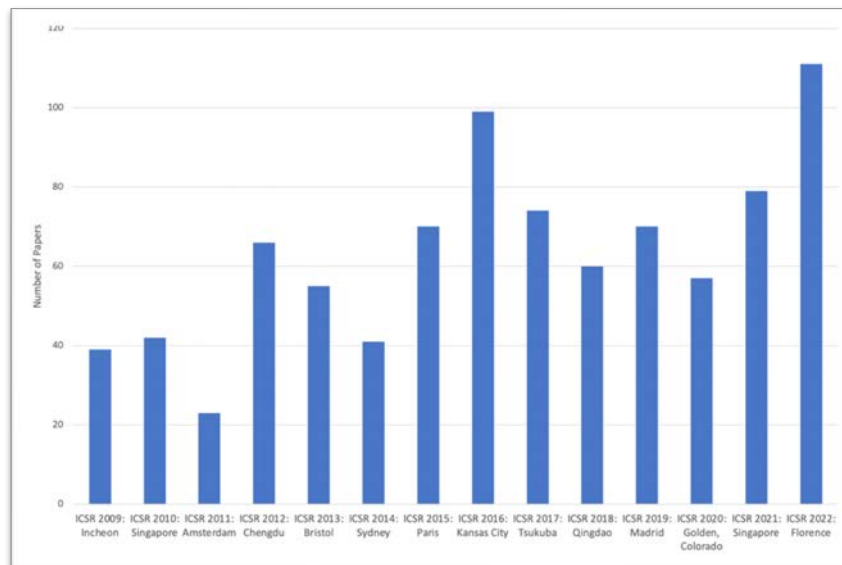
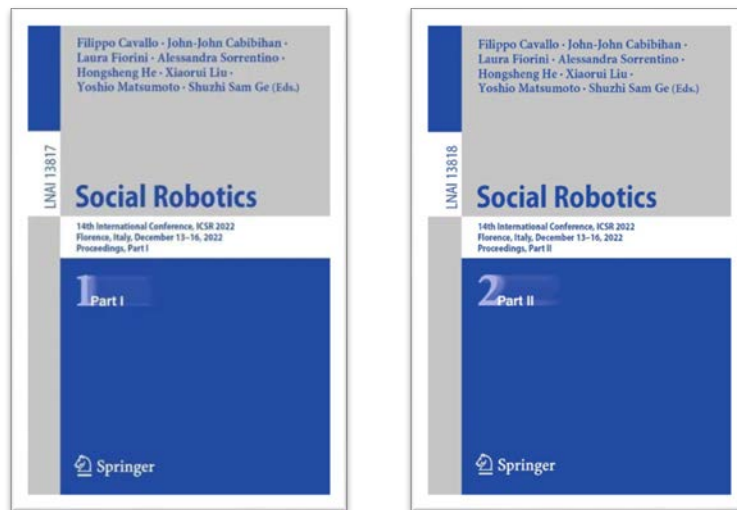
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Conference Proceedings

The Proceedings of ICSR 2023 will be published by Springer International Publishing as part of the Lecture Notes in Artificial Intelligence series (LNAI), a topical subseries of the Lecture Notes in Computer Science (LNCS). The proceedings are indexed by SpringerLink and Scopus. With the popularity of this research area, there has been a gradual increase in the number of papers submitted and accepted.





Workshops

Workshops has become an attractive event for conferences. The topics are more focused and encourages close discussions and interactions among the speakers and participants.

In ICSR 2022 in Florence, Italy, for example, there were 12 workshops that were organized. These workshops have attracted over 100 speakers and participants. These were organized by top researchers in the robotics community.

ALTRUIST – sociAL roboTs for pERsonalized continUous and adaptIve aSsisTance

Organizers: Roberta Bevilacqua, Laura Fiorini, Francesca Fracasso, Alessandro Umbrico, Rainer Wieching

ASIMOV – Adaptive Social Interaction based on user’s Mental mOdelS and behaVior in HRI

Organizers: Mariacarla Staffa, Alessandra Rossi, Antonio Andriella, Maryam Alimardani

Design for debate: futuring robots for Healthcare

Organizers: Andrew Tibbles, Nawelle Zaidi, Pablo Osorio

Eco-socio-botics 2022 – Social Robotics for Sustainability

Organizers: Ilaria Alfieri, Antonio Fleres, Luisa Damiano

Evaluating Social Assistive Robots in Healthcare

Organizers: Santosh Thoduka, Nico Hochgeschwender, Praminda Caleb-Solly, Mauro Dragone, Filippo Cavallo, Guillaume Avrin, Virgine Barbosa

From modelling to understanding children’s behaviour in the context of robotics and social artificial intelligence

Organizers: Serge Thill, Vicky Charisi, Tony Belpaeme, Ana Paiva

Participatory design (PD) of socially assistive robots (SARs): generating a design toolkit for Human-Robot Interaction

Organizers: Ela Liberman-Pincu, Elmer D. van Grondelle, Tal Oron-Gilad

Robot companionship: applications and challenges

Organizers: Paolo Dario, Alberto Pirni

Realization of Avatar-Symbiotic Society. Everyone can Perform Active Roles without Constraint

Organizers: Takahiro Miyashita, Takashi Yoshimi

Social Robots as means of indirect influence

Organizers: Pierluigi Graziani, Francesco Bianchini

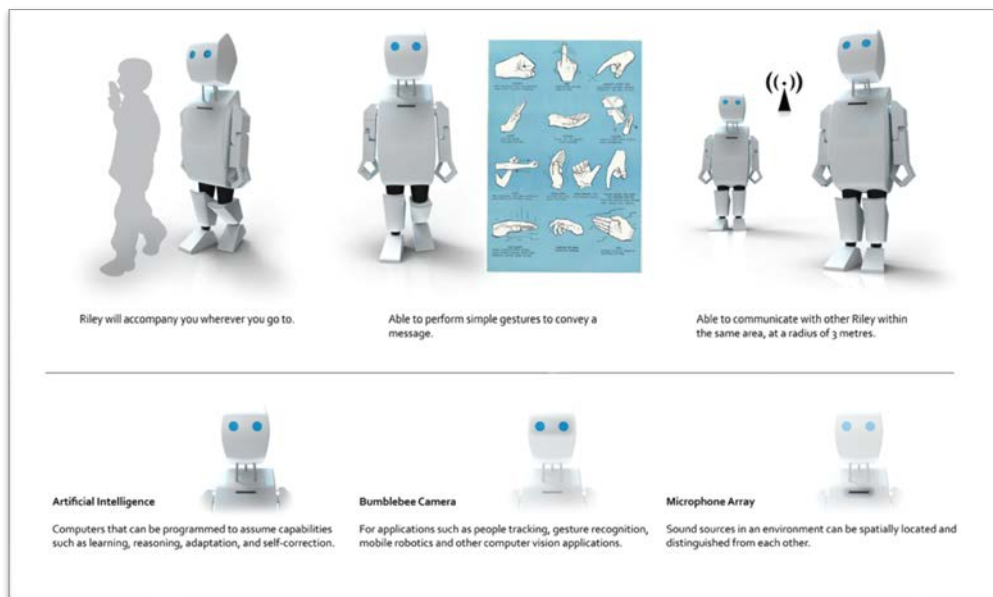
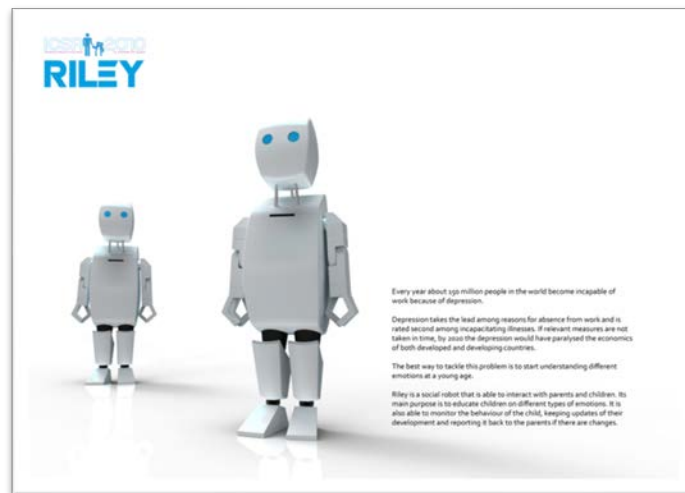
Social Robots for Community Dwelling Older Adults in Europe and Japan

Organizers: Rainer Wieching, Toshimi Ogawa

Design Competitions

How can robots be a part of our life to assist, serve and entertain us? What is the next big thing and the next best app for robots? Where is the new generation of such social robots heading and what should be the innovative societal applications?

The ICSR Design Competition is a great way to present works to an international multidisciplinary R&D community as well as representatives from robotics and AI companies, and get their valuable feedback, and above all get recognized. There are two categories for the design competition: Category A: Innovation in software, applications, and interaction modalities and Category B: Innovation in hardware, design, and interfaces.



Conference Awards

There will be the Best Conference Paper and Best Student Paper Awards for outstanding papers in the conference. The Award Committee will evaluate each paper based on significance, motivation, problem statement, technical contribution, impact, and clarity of writing and presentation.

Certificates will be provided to all Finalists for the Best Conference Paper and Best Student Paper Awards. The top finalists will receive cash prizes.



“I was there last year” Award

To encourage continuous participation in ICSR, we created the “I was there last year” Award. As a fun award, we give out special gifts to participants who attended ICSR in the previous year. The gifts represent a popular souvenir from the host city.



ICSR 2012 in Chengdu, China. Chengdu is the home of the Panda-breeding zoo.



ICSR 2014 in Sydney, Australia. Australia is well-known for its Koala bears.



Sample Schedule

ICSR 2023 is scheduled on December 4-7, 2023 (Monday-Thursday).

ICSR conferences are composed of Workshops on Days 1 and 4 and the main Conference on Days 2 and 3. In addition to the lunch and snacks provided during the 4-day meeting, there is a Welcome Reception for all participants on Day 1. There is also a Dinner for Organizers and VIPs on Day 1. On Day 2, there is a Banquet Dinner for all participants. On Day 3, the Awards Ceremony is scheduled together with a Farewell Party. In order to encourage the participants to attend Day 4, a social trip is organized after the Workshop.

MON 4	TUE 5	WED 6	THU 7
Grand Opening 8:30 – 11am	Conference 8:30am – 5pm	Conference 8:30am – 5pm	Workshop 8:30am – 2pm
Welcome Reception 11am – 2pm			Social Trip 2 – 6pm
Workshop 2 – 5pm			
Dinner for Organizers and VIPs 5 – 9pm	Banquet Dinner 5 – 9pm	Awards Ceremony and Farewell Party 5 – 9pm	

Venue

The venue for ICSR 2023 will be at the new Student Affairs building inside the Qatar University Campus. The new building has state-of-the-art conference facilities: an auditorium with 300 seats, multiple conference rooms with 100 seats, an exhibition hall with several demo LCD monitors, and large spaces suitable for interactions among conference participants and robots.



Past Keynote Speakers (ICSR 2022, Florence)



NEW FRONTIERS IN ROBOT-ASSISTED THERAPY AND EDUCATION Professor **Kerstin Dautenhahn**, University of Waterloo, Canada

Kerstin Dautenhahn, IEEE Fellow, AISB Fellow, is Full Professor and Canada 150 Research Chair in Intelligent Robotics at University of Waterloo in Ontario, Canada where she directs the Social and Intelligent Robotics Laboratory. Her research areas are social robotics, human-robot interaction, assistive robotics, and cognitive and developmental robotics. She has published more than 400 peer-reviewed publications, including 103 journal articles (H-Index 85), and frequently gives invited keynote presentations at international conferences. She has several senior Editorial Roles in international journals



THE FUTURE OF RESEARCH AND ITS ORGANIZATION: FUNDAMENTAL QUESTIONS, SOCIAL INNOVATION, AND MEGATRENDS Professor **Maria Chiara Carrozza**, Italian National Research Council (CNR), Italy

Maria Chiara Carrozza, MoS degree in Physics from University of Pisa in 1990, and Ph.D. in Engineering at Scuola Superiore Sant'Anna, Pisa, Italy in 1994. Since 2021 she is President of the National Research Council. She is Full Professor of Industrial Bioengineering at The BioRobotics Institute of Scuola Superiore Sant'Anna. She has been Rector of Scuola Superiore Sant'Anna from 2007 to 2013, Member of the Italian Parliament from 2013 to 2018, and Minister of Education, University and Research of Italian Republic from 2013 to 2014. From 2018 to 2021 she was Scientific Director of Don Carlo Gnocchi Foundation in Milan, Italy, a network of Research hospitals dedicated to Rehabilitation Medicine. From 2015 to 2021 she served in the Board of Directors of the Piaggio SpA. She is Founding Partner of IUVO Srl, a start-up active in the field of Wearable Robotics. From 2016 to 2021 she was President of Italian Scientific Association of Biomedical Engineers.



FROM ROMEO & JULIET TO OCEANONEK DEEP-SEA ROBOTIC EXPLORATION Professor **Oussama Khatib**, Stanford University, United States

Oussama Khatib received his PhD from Sup'Aero, Toulouse, France, in 1980. He is Professor of Computer Science and Director of the Robotics Laboratory at Stanford University. His research focuses on methodologies and technologies in human-centered robotics, haptic interactions, artificial intelligence, human motion synthesis and animation. He is President of the International Foundation of Robotics Research (IFRR) and a Fellow of the Institute of Electrical and Electronic Engineers (IEEE). He is Editor of the Springer Tracts in Advanced Robotics (STAR) series, and the Springer Handbook of Robotics, awarded the American Publishers Award for Excellence in Physical Sciences and Mathematics. He is recipient of the IEEE Robotics and Automation (IEEE/RAS) Pioneering Award (for his fundamental contributions in robotics research, visionary leadership and life-long commitment to the field), the IEEE/RAS George Saridis Leadership Award, the Distinguished Service Award, the Japan Robot Association (JARA) Award, the Rudolf Kalman Award, and the IEEE Technical Field Award. Professor Khatib is a member of the National Academy of Engineering.

Past Sponsors






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Sponsorship Packages

Benefits				
	Platinum 150K QAR	Gold 85K QAR	Silver 50K QAR	Bronze 25K QAR
Sponsor name/logo recognition on all posters on Qatar University platform and in the College of Engineering's website and social media	✓	✓	✓	✓
Sponsor name/logo recognition on all printing marketing material (Event agenda, roll up, banners, etc.) Note: Main banner is reserved for platinum sponsors only.	✓	✓	✓	✓
Media exposure (TV, promotional videos, etc.)	✓	✓	✓	✓
Participation as attendees to the conference and workshops tracks	✓	✓	✓	✓
Participation in closing and awards ceremony	✓	✓	✓	✓
Post-event naming, tribute, and priority for sponsoring future events	✓	✓	✓	✓
Pre-event naming and tribute	✓	✓	✓	
Sponsor name/logo recognition on all posters sent via email to QU community	✓	✓	✓	
Access to event insights	✓	✓		
Awarding of tokens to best paper/competition winners on stage	✓	✓		
Sponsoring on workshops and/or tutorials (showcasing the sponsor's solutions and applications in AI and Robotics) ¹	✓			
Sponsor name/logo recognition on the main banner (position and size will depend on package selected)	✓			

Opening ceremony speech (if preferred by sponsor)	✓			
Exhibition area ^{2,3}	Extra Large ~ 9 m ²	Large ~ 6 m ²	Medium ~ 4 m ²	Small ~ 2 m ²
<p>Notes:</p> <p>1- Other exclusive requests can be discussed including exclusive competitions, etc.</p> <p>2- Exhibition area includes an empty booth space with no design or specific shape.</p> <p>3- Exhibition sizes may change subject to the available area in the venue.</p>				