# Towards Global Robotics, Arts, and Science Synergies - GRASS

Shuzhi Sam Ge, Amit Kumar Pandey and John-John Cabibihan

Global Robotics, Arts, and Science Synergies, (GRASS) Pte. Ltd. Singapore admin@grassynergies.com

**Abstract.** The workshop proposal is part of the recently launched global initiative on bringing Robotics, Art, and Science together, with the aim to uncover the full potential of the Robotics domain. The idea is to create a much-needed larger community of different stakeholders and empower the community to initiate a diverse set of initiatives. The workshop will bring experts from different regions, provide in-depth details of the initiatives, and engage Social Robotics community to shape the initiative, strategy and impact.

The expected impact is to expand the horizon of social robots, transforming them from a discipline into a phenomenon to positively impact humanity.

Keywords: Social Robotics, Global Initiative, Robotics Impact.

### 1 Introduction

We are witnessing a remarkable shift in the ways technologies are becoming the part of everyday life. Robotics is not an exception, as being one of the greatest revolution of 21<sup>st</sup> Century. Robots are becoming increasingly accessible to the people, and having huge potentials for providing a spectrum of services. However, there is a great need to create common ground and shared understanding about the science and technology of this new generation of socially-focused & human-centered robots, and their potentials, applications and barriers.

There are key requirements moving forward are:

- 1. Understanding various constraints and barrier, which are preventing to unlock the full potentials of such societal applications of robots.
- 2. Several players and stakeholders should be more engaged both in creating the impact and in getting rewarded for their contribution in the advancement of the domain.
- 3. The growth and impact of the domain should be inclusive, considering diversity of society, expertise as well as geographical regions.

The GRASS (Global Robotics, Arts, and Science Synergies) initiative is to bridge the gaps, serve as the enabling platform towards the above needs.

# 2 Relevance and Expected Impact

Social robotics brings society and robotics together. GRASS recognizes the critical role of interdisciplinary collaboration in addressing the complex challenges that lie ahead. By bringing diverse experts together, the workshop will extend the scope beyond traditional disciplinary boundaries, and explore in depth the symbiotic relationship between robotics, art, and science for societal needs.

It is a timely initiative to create a global strategic synergy on this very diverse domain and customize for a more impactful solution and more adapted to different societies, needs and regions.

GRASS envisions a community where the synergy between robotics, art, and science propels transformative ideas and solutions. By initiating dialogue through insightful talks from esteemed experts worldwide, and with introductory sessions outlining the genesis and mission of GRASS, the workshop sets the stage for a community-driven initiative. The interactive session not only facilitates knowledge exchange but also empowers participants to contribute actively, ensuring that the impact of GRASS is not confined to a small group and to a theoretical discussions but translates into tangible collaborative projects and advancements.

This workshop is more than an exploration of disciplines. By acknowledging the interconnected nature of robotics, art, and science with society, GRASS aims to transcend the conventional boundaries of what we perceive as social robotics. The workshop aim to envision a future where these technologies seamlessly integrate into our daily lives, enriching and enhancing the human experience.

By joining this workshop, participants will not only become aware about the initiative and how to get engage in it, but also will shape and expand the initiative in a more inclusive manner.

## 3 Scope and Tentative Agenda

The workshop will bring experts from:

- Research and Science
- Innovation and Technology
- Business and Commercial
- Policy and Stagey
- End Users and Public

#### The expected benefits for participants are:

- Global Perspectives: Gain insights from experts worldwide.
- Interdisciplinary Learning: Explore the intersections of robotics, art, and science
- Networking: Connect with professionals and enthusiasts in the field.
- Special Invitation: Contribute to the inauguration of the GRASS initiative and to be part of GRASS initiative with key roles.

#### **Tentative Agenda:**

Opening Session (30 mins)

Welcome and Introduction to GRASS Initiative Overview of Workshop Objectives

Invited Talks (90 mins)

Talk 1: Science and Technology of Social Robots

Talk 2: Artistic Dimensions of Social Robotics

Talk 3: Business and commercialization aspects of Social Robotics

Introductory Talks about GRASS (40 mins)

Talk 4: Genesis of GRASS: Connecting Robotics, Art, and Science

Talk 5: Mission and Vision of GRASS: A Collaborative Endeavor

Interactive Session (60 mins)

Panel Discussion: Bridging Disciplines in Robotics, Art, and Science

Q&A Session: Engaging Participants in Dialogue Networking Opportunities: Virtual Breakout Rooms

Closing Session (20 mins)

Recap of Key Insights

Call to Action: Involvement in GRASS Initiative