ICRA™

IEEE INTERNATIONAL CONFERENCE
ON ROBOTICS AND AUTOMATION

2026 IEEE RAS AWARDS CEREMONY

4 June 2026

Vienna, Austria

IEEE Robotics & Automation Society | IEEE

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Recognition of Professional Achievement

For nearly a century, the IEEE Awards program has paid tribute to technical professionals whose exceptional achievements and outstanding contributions have made a lasting impact on technology, society and the engineering profession. That tradition of public recognition continues today. In the 21st century, IEEE Awards are valued as among the highest honors a technical professional can receive. They are an esteemed symbol of the admiration of one's peers—the most prized form of prestige—bestowed upon individuals whose accomplishments have enhanced the global economy while improving the quality of daily life.

Legacy of Innovation

IEEE Awards recognize and encourage important contributions to technology, science and the profession. They honor achievements in education, industry, research and service, and they encompass the breadth of the many IEEE technical interest areas from computer science, electrical engineering, information technologies and microelectronics, to optoelectronics, radar technologies, signal processing and beyond. Each award has its own unique mission and criteria, and offers the opportunity to honor distinguished colleagues, inspiring teachers and corporate leaders.

Through the Awards program, the IEEE, and the societies that preceded it, also have played an important role in encouraging innovation. Individuals honored with IEEE Awards join a remarkable group of such well-known pioneers as Bell, Edison, Marconi, Noyce and Grove—among many others. These individuals, in turn, provide inspiration and personal role models for aspiring professionals.

IEEE Awards Selection Process

Nominations for IEEE awards and recognitions are initiated by the members and others, then reviewed by a panel of peers—professionals who are especially knowledgeable in a particular field. Their recommendations are, in turn, submitted to the IEEE Awards Board for further review prior to final approval by the IEEE Board of Directors. The awards fall into seven categories:

- Medals
- Honorary Memberships
- Service Awards
- Corporate Recognitions
- Technical Field Awards
- Prize Paper Awards

The IEEE Robotics & Automation Award

The IEEE Robotics and Automation Award was established in 2002 by the IEEE Board of Directors, and is presented for contributions in the field of robotics and automation. It includes but is not limited to: manufacturing automation; robotics and automation in unstructured environments; sensor design; integration and fusion; robot design; modeling; planning and control; methodologies for robotics and automation, and the quality of the nomination.

Sponsored by the IEEE Robotics & Automation Society, the award consists of a bronze medal, certificate, and honorarium.

For additional information on IEEE Technical Field Awards and Medals, to view complete lists of past recipients, or to nominate a colleague or associate for IEEE Technical Field Awards and Medals, please visit: www.ieee.org/awards.

Past Recipients

2025 Marc Raibert
2024 Paolo Dario
2023 Daniela Rus
2022 Wolfram Burgard
2021 Jean-Claude Latombe and Tomas Lozano-Perez
2020 Vijay Kumar
2019 Zexiang Li and Frank Wang
2018 Matthew T. Mason
2017 Oussama Khatib
2016 Raffaello D'Andrea
2015 Rodney A. Brooks
2014 Shigeo Hirose
2013 Ruzena Bajcsy
2012 Bernard Roth
2011 Hirochika Inoue
2010 Toshio Fukuda
2009 Antal Bejczy
2008 Paul G. Backes, Eric T. Baumgartner and Larry H. Matthies
2007 Gerd Hirzinger
2006 George A. Bekey
2005 Seiuemon Inaba
2004 Joseph F. Engelberger

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2026 IEEE Robotics & Automation Award

Roland Siegwart

Full Professor of Autonomous Systems, ETH Zürich
Zürich, Switzerland
For substantial contributions to robot design and autonomous navigation in unstructured environments

Roland Siegwart is a world-leading researcher in robot design, navigation, and intelligence. His research is dedicated to the investigation and creation of robots that can autonomously operate in complex and diverse environments. With his team, he developed and realized a large variety of novel robot concepts that are best adapted for acting on the ground, in the air, and in the water. This includes wheeled rovers for rough terrain, the first implementation of quadcopters and small solar airplanes for perpetual flight, walking quadrupeds with compliant actuators, and radically novel omnidirectional Unmanned Aerial Vehicles. As well as being an innovator in his scholarly work, Siegwart has excelled at commercializing his research and has co-founded and helped start many companies.

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IEEE Fellows
Elevated as of January 2026

IEEE Fellow is the highest grade of Institute membership, conferred only by election by the Board of Directors. Candidates must be senior members with at least five years of IEEE membership. The nominator is responsible for preparation of the formal nomination form; identification of five to eight IEEE Fellows, capable of assessing the candidate's contributions, who agree to serve as references; identification of an IEEE Society or Council whose evaluating committee will assess the candidate's technical qualifications and contributions. All material is sent to the Fellow Committee, which must review all nominations and assessments, and prepare a ranked list. The total number of Fellow recommendations each year cannot exceed 0.1% of IEEE membership, exclusive of Students and Affiliates.

Congratulations to the
IEEE Robotics and Automation Society
2026 Fellow Class

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2026 IEEE Fellow Class

Dong Soo Kwon — *for contributions to medical robotics, haptics, and minimally invasive surgical technologies*

Robert J. Webster — *for contributions to medical robotics, haptics, and minimally invasive surgical technologies*

Jingang Yi — *for contributions to motion control for robotics and semiconductor manufacturing*

Tetsuya Ogata — *for contributions to cognitive developmental robotics and deep predictive learning*

Kaspar Althoefer — *for contributions to soft robotics and tactile perception with applications in complex environments*

Tamim Asfour — *for contributions to humanoid mechatronics and cognitive humanoid robotics*

Huaping Liu — *for contributions to multi-modal embodied perception and learning*

Gregory Dudek — *for contributions to algorithmic theory of robotics and marine robotics*

Ming Liu — *for contributions to mobile robotic navigation*

Aleksandra Faust — *for contributions to technical leadership in scalable learning-based autonomy and foundation models*

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2026 IEEE Robotics & Automation Pioneer Award

John Leonard

Massachusetts Institute of Technology, USA

For pioneering contributions to SLAM and autonomous vehicles on land and in sea.

John J. Leonard is Samuel C. Collins Professor of Mechanical and Ocean Engineering and Associate Department Head for Education in the MIT Department of Mechanical Engineering. He is also a member of the MIT Computer Science and Artificial Intelligence Laboratory (CSAIL). His research addresses the problems of navigation and mapping for autonomous underwater vehicles, self-driving vehicles, and other types of mobile robots. He holds the degrees of B.S.E.E. in Electrical Engineering and Science from the University of Pennsylvania (1987) and D.Phil. in Engineering Science from the University of Oxford (1994). He is the recipient of a Thouron Award (1987), an NSF Career Award (1998), a Science Foundation Ireland E.T.S. Walton Visitor Award (2004), the Best Paper Award at ACM SenSys in 2004 (shared with D. Moore, D. Rus, and S. Teller), the King-Sun Fu Memorial Best Transactions on Robotics Paper Award in 2006 (shared with R. Eustice and H. Singh) and in 2025 (shared with Alan Papalia, Andrew Fishberg, Brendan O'Neill, Jonathan How, and David Rosen), and the WAFR 2016 Best Paper Award (shared with D. Rosen, L. Carlone, and A. F. Bandeira). Prof. Leonard is a Technical Advisor at Toyota Research Institute, working in automated driving and human-centered AI.

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2026 IEEE RAS George Saridis Leadership Award in Robotics and Automation

Henrik Christensen

University of California San Diego, USA

For leadership in society restructuring and new publications initiatives, and contributions to geometric methods in robotics.

Henrik I. Christensen is Distinguished Professor of Computer Science and Engineering at the University of California, San Diego, where he directs the Contextual Robotics Institute. His work spans robotics, autonomous systems, human-robot interaction, and the translation of intelligent systems into real-world settings. Before joining UC San Diego, he held major leadership roles at Georgia Tech, where he helped shape nationally recognized programs in robotics research and education.

Christensen has authored more than 450 publications and is widely recognized for his contributions to the foundations and applications of modern robotics. In 2011, he received the Engelberger Award in recognition of his leadership and impact on the field. Across academia, industry, and government, he is known for advancing robotics as both a scientific discipline and a transformative technology for society. He is the co-founder of six companies.

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2026 IEEE RAS Distinguished Service Award

Yi Guo

Stevens Institute of Technology, USA

For outstanding service as Editor-in-Chief of the IEEE Robotics and Automation Magazine and contributions in support of RAS conferences.

Yi Guo is Thomas E. Hattrick Chair Professor of Electrical and Computer Engineering at Stevens Institute of Technology. She joined Stevens in 2005 following a Ph.D. in Electrical and Information Engineering from the University of Sydney and a postdoctoral fellowship at Oak Ridge National Laboratory. Her research spans distributed and collaborative robotic systems, human-robot interaction, and dynamic systems and controls — a body of work that has grown to more than 150 journal and conference papers and two books. She served as the Editor-in-Chief of the IEEE Robotics and Automation Magazine from 2021 to 2025. She was Associate Editor of IEEE Robotics and Automation Letters, IEEE/ASME Transactions on Mechatronics, and IEEE Access. She was the Program Chair for the 2025 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS). She currently serves on the ASME Dynamic Systems and Control Division Honors and Awards Committee. Her awards include Provost's Award for Research Excellence at Stevens, and Best Application Paper Award at WCICA2018. She is ASME Fellow and Distinguished Lecturer of IEEE Robotics and Automation Society.

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2026 IEEE RAS Early Academic Career Award in Robotics and Automation

Somil Bansal

Stanford University, USA

For pioneering scalable algorithms for safety-critical control of autonomous and AI-enabled robotic systems.

Somil Bansal is an Assistant Professor in the Department of Aeronautics and Astronautics at Stanford University, where he leads the Safe and Intelligent Autonomy (SIA) Lab. Somil is broadly interested in developing mathematical tools and algorithms for the control and analysis of robotic and autonomous systems, with a focus on the safety of AI-enabled autonomous systems. He received a Ph.D. in Electrical Engineering and Computer Sciences (EECS) from the University of California, Berkeley, in 2020. Before that, he obtained a B.Tech. in Electrical Engineering from the Indian Institute of Technology, Kanpur, and an M.S. in Electrical Engineering and Computer Sciences from UC Berkeley in 2012 and 2014, respectively. After his PhD, he spent a year as a Research Scientist at Waymo, focusing on safe planning for autonomous vehicles. He has also collaborated closely with sveral companies including Skydio, Google, TRI, NVIDIA, Boeing, and NASA JPL on deploying his safety algorithms on real-world autonomous systems. Somil has received several awards, most notably the NSF CAREER award, Eli Jury Award at UC Berkeley for his doctoral research, and research awards from Toyota and Open Philanthropy.

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2026 IEEE RAS Early Academic Career Award in Robotics and Automation

Chuchu Fan

Massachusetts Institute of Technology, USA

For pioneering contributions to safe learning-based control, verification and testing for autonomous robot systems.

Chuchu Fan is an Associate Professor (pre-tenure) in the Department of Aeronautics and Astronautics (AeroAstro) and Laboratory for Information and Decision Systems (LIDS) at MIT. Before that, she was a postdoc researcher at Caltech and got her Ph.D. at the University of Illinois at Urbana-Champaign. She earned her bachelor's degree from Tsinghua University. Her research group, Realm at MIT, works on developing computational tools that integrate rigorous mathematics into machine learning and AI, for the design, analysis, and verification of safe, large-scale, complex systems. Chuchu is the recipient of an NSF CAREER Award, an AFOSR Young Investigator Program (YIP) Award, an ONR YIP Award, an RSS Outstanding Student Paper Award, and the 2020 ACM Doctoral Dissertation Award.

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2026 IEEE RAS Early Academic Career Award in Robotics and Automation

Robert Katzschmann

ETH Zürich, Switzerland

For pioneering bioinspired musculoskeletal and biohybrid robotic systems that advance real-world interaction, sensing, and autonomy in complex environments.

Robert K. Katzschmann is Assistant Professor of Robotics at ETH Zurich, where he founded and directs the Soft Robotics Lab. His research builds robots capable of dynamic contact with the physical world, using musculoskeletal designs that, like biology, allow compliance and force to be controlled independently.

He earned his Ph.D. from MIT in 2018 under Daniela Rus, where he led the development of SoFi, the first soft robotic fish to swim autonomously among coral reefs (Science Robotics). Before joining ETH Zurich in 2020, he was an Applied Scientist at Amazon Robotics, where he developed the patented Robin manipulator, and Chief Technology Officer at Dexai Robotics. In 2024 he co-founded Mimic Robotics. Recent flagship work includes an electrohydraulic musculoskeletal robotic leg (Nature Communications, 2024) and vision-controlled 3D printing of robots with bones, ligaments, and tendons (Nature, 2023). He is a TED Fellow and a Senior Member of IEEE.

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2026 IEEE RAS Early Academic Career Award in Robotics and Automation

Cristina Piazza

Technical University of Munich, Germany

For fundamental contributions to grasping and manipulation for robotic and prosthetic applications.

Prof. Cristina Piazza is Tenure-Track Assistant Professor of Healthcare and Rehabilitation Robotics at the Technical University of Munich, where she leads research on neuroprosthetics and human-centered robotic systems. She received her Ph.D. in Robotics (summa cum laude) from the University of Pisa in 2019, followed by postdoctoral work at Northwestern University and the Shirley Ryan AbilityLab. Her research focuses on intelligent, bioinspired artificial limbs integrating soft robotics and neural interfacing for intuitive human–machine interaction.

She serves as co-chair of two IEEE/RAS Technical Committees (Robotic Hands, Grasping and Manipulation; Cyborg and Bionic Systems), Associate Editor for IEEE TBME and IEEE RA-L (Outstanding Associate Editor Award, 2026), and General Chair of IEEE CBS 2026. Her work has been recognized with the 2026 K. Granata Early Career Award (ISEK), the New Generation Star Project Award at IROS 2024, the PhD Talent 2019 award, Best Paper Awards at IEEE Humanoids 2012, ADM 2025, and IEEE CBS 2025, and the Dr. Kanako Miura Award at IEEE Humanoids 2016.

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2026 IEEE RAS Early Academic Career Award in Robotics and Automation

Xiaolong Wang

University of California San Diego, USA

For pioneering contributions to 3D computer vision and embodied AI, enabling robots to perceive, learn, and act in complex environments.

Xiaolong Wang is an Associate Professor in the ECE department at the University of California, San Diego, and a Research Director at Meta Superintelligence Labs. He received his Ph.D. in robotics from Carnegie Mellon University. His postdoctoral training was at the University of California, Berkeley. His research focuses on the intersection between computer vision and robotics. His specific interest lies in representation learning with videos and physical robotic interaction data. These comprehensive representations are utilized to facilitate the learning of human-like robot skills, with the goal of generalizing the robot to interact effectively with a wide range of objects and environments in the real physical world. He is the recipient of the Sloan Research Fellowship, J. K. Aggarwal Prize, NSF CAREER Award, Intel Rising Star Faculty Award, Best Paper Awards at IROS and ICRA, and Research Awards from Sony, Amazon, Adobe, and CISCO.

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2026 IEEE Robotics and Automation Award for Product Innovation

SEER ROBOTICS EUROPE GMBH
AMR Controller, SRC Series.

SEER Robotics

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2026 RAS Section Chapter of the Year Award

This Award honors an IEEE Robotics & Automation Society (RAS) Section Chapter that has demonstrated excellence in serving its local members through outstanding activities, including technical meetings, conferences, tours, seminars, tutorials, and other member-focused programs and initiatives.

IEEE RAS Kerala Chapter

Chapter Leadership

- Dr. Arun P, Chapter Chair
- Dr. Shyba Zaheer, Chapter Co-Chair

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2026 RAS Society Student Branch Chapter of the Year Award

This Award recognizes an IEEE Robotics & Automation Society Student Branch Chapter which provides outstanding activities and services to its local RAS members in one or more of the following areas: technical meetings, tours and conferences, seminars and/or tutorials, plus other services and activities.

Universidade Federal de Campina Grande

RAS Student Branch Chapter - **Brazil**

- **Lorenzo Carrera de Oliveira**, Chapter Chair
- **Antonio Marcus Nogueira Lima**, Chapter Advisor

National Institute of Applied Science and Technology (INSAT)

RAS Student Branch Chapter - **Tunisia**

- **Mohamed Amine Elkadhi**, Chapter Chair

North South University

RAS Student Branch Chapter - **Bangladesh**

- **Md Tasbeer Ahmed**, Chapter Chair
- **Dr. Lamia Iftekhar**, Advisor

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2026 IEEE International Conference on Robotics and Automation Most Influential Paper Award

The award recognizes the most influential paper published in the Proceedings of the IEEE International Conference on Robotics and Automation (ICRA) from approximately 20 years ago, between 1999-2003. Unlike the other RAS best paper awards that attempt to predict the future potential impact of a paper, this award looks back at the actual impact a paper has had.

Jur van den Berg | Ming Lin | Dinesh Manocha

Reciprocal Velocity Obstacles for real-time multi-agent navigation.

Proceedings of the 2008 IEEE International Conference on Robotics and Automation, Pasadena, CA, USA, pp. 1928-1935

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2026 IEEE International Conference on Robotics and Automation

Most Influential Paper Award

Jur van den Berg

Dr. Jur van den Berg earned his Ph.D. in Computer Science from Utrecht University in 2007 and specializes in autonomous vehicle software and advanced robotics algorithms. After his Ph.D., he completed postdoctoral research fellowships at the University of North Carolina at Chapel Hill and the University of California, Berkeley, before serving as an assistant professor at the University of Utah. Throughout his academic career, he authored highly cited scientific papers, making foundational contributions to various areas within robotics, such as motion planning, multi-agent navigation, and collision avoidance. Van den Berg successfully transitioned into the tech industry, developing autonomous vehicle software for Google and Apple, and later at Otto and Uber. He then co-founded the driverless trucking startup Ike, where he served as Chief Technology Officer until its acquisition by Nuro, and currently applies his expertise as a Senior Principal Software Developer at the leading physical AI company Waabi, focused on bringing safe and scalable autonomous driving technology to both logistics and transportation markets.

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2026 IEEE International Conference on Robotics and Automation

Most Influential Paper Award

Ming Lin

Ming C. Lin received her B.S., M.S., and Ph.D. in Electrical Engineering and Computer Science from UC Berkeley. She is a Distinguished University Professor, Dr. Barry Mersky and Capital One E-Nnovate Endowed Professor at the University of Maryland, College Park, an Amazon Scholar, and John R. & Louise S. Parker Distinguished Professor Emerita of Computer Science at UNC Chapel Hill. She has received numerous honors, including the NSF Young Faculty Career Award, IEEE VGTC VR Technical Achievement Award, and Washington Academy of Sciences Distinguished Career Award in Computing.

She is a Fellow of the National Academy of Inventors, ACM, IEEE, Eurographics, ACM SIGGRAPH Academy, and IEEE VR Academy. Her research spans Robotics, AI/ML, Virtual Reality, Computer Graphics, and Human-Computer Interaction. She has co-authored over 500 refereed publications, co-edited five books, chaired more than 40 international events, and served on steering committees and advisory boards across government, academia, and industry..

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2026 IEEE International Conference on Robotics and Automation

Most Influential Paper Award

Dinesh Manocha

Dinesh Manocha is Paul Chrisman-Iribe Professor in Computer Science & Electrical and Computer Engineering and Distinguished University Professor at University of Maryland College Park. His research interests include virtual environments, AI, and robotics. His group has developed several packages for multi-agent simulation, robot planning, and physics-based modeling that are standard in the field and licensed to more than 60 commercial vendors. He has published more than 850 papers & supervised 67 PhD dissertations. He is an inventor of 17 patents, some licensed to industry. He is a Fellow of AAAI, AAAS, ACM, IEEE, and NAI, a member of ACM SIGGRAPH and IEEE VR Academies, and a Bézier Award. He received the Distinguished Alumni Award from IIT Delhi and the Distinguished Career in Computer Science Award from the Washington Academy of Sciences. He co-founded Impulsonic, a physics-based audio simulation technology developer, which Valve Inc. acquired in November 2016. He is also a co-founder of Inception Robotics, Inc. More information is available at: https://www.cs.umd.edu/people/dmanocha

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2026 IEEE International Conference on Robotics and Automation

IEEE/IFR Innovation and Entrepreneurship Award

FINALISTS

The Nav2 Navigation Stack in ROS2

Open Navigation

Steve Macenski

Verity Autonomous Indoor Drone System

Warehouse Inventory Management

Markus Hehn, Markus Waibel, and Raff D'Andrea

The INDUROS Ecosystem

Unlocking the Brownfield Automation Gap

Innok Robotics - Alwin Heerklotz

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2026 RAS Publication Awards

The RAS publication awards recognize excellence and the best research papers published in the previous calendar year.

King-Sun Fu Memorial
IEEE Transactions on Robotics
Best Paper Award

FAST-LIVO2: Fast, Direct LiDAR–Inertial–Visual Odometry

Chunran Zheng, Wei Xu, Zuhao Zou, Tong Hua, Chongjian Yuan, Dongjiao He, Bingyang Zhou, Zheng Liu, Jiarong Lin, Fangcheng Zhu, Yunfan Ren, Rong Wang, Fanle Meng, and Fu Zhang

IEEE Transactions on Robotics:
vol. 41, pp. 326-346, 2025

For developing a fast LiDAR-inertial-visual odometry framework to real-time state estimation that outperforms state-of-the-art approaches in accuracy, robustness, and efficiency across challenging environments.

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King-Sun Fu Memorial
IEEE Transactions on Robotics
Best Paper Award Honorable Mentions

Irrotational Contact Fields
Alejandro M. Castro; Xuchen Han; Joseph Masterjohn
vol. 41, pp. 6176-6192, 2025

State Estimation for Continuum Multirobot Systems on SE(3)
Sven Lilge; Timothy Barfoot; Jessica Burgner-Kahrs
vol. 41, pp. 905-925, 2025

Design, Control, and Evaluation of a Novel Soft Everting Robot for Colonoscopy
Jialei Shi; Korn Borvorntanajanya; Kaiwen Chen; Enrico Franco; Fernando Rodriguez y. Baena
vol. 41, pp. 4843-4859, 2025

Physics-Informed Neural Mapping and Motion Planning in Unknown Environments
Yuchen Liu; Ruiqi Ni; Ahmed H. Qureshi
vol. 41, pp. 2200-2212, 2025

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IEEE Transactions on Robotics
Distinguished Service Awards

Paolo Robuffo Giordano
CNRS, IRISA, France
Outstanding Senior Editor

Mark Yim
University of Pennsylvania, USA
Outstanding Editor

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IEEE Robotics and Automation Letters

Best Paper Awards - 5 Winners

Joint-Repositionable Inner-Wireless Planar Snake Robot

Ayato Kanada, Ryo Takahashi, Keito Hayashi, Ryusuke Hosaka, Wakako Yukita, Yasutaka Nakashima, Tomoyuki Yokota, Takao Someya, Mitsuhiro Kamezaki, Yoshihiro Kawahara, Motoji Yamamoto

vol. 10, no. 5, pp. 4994-5001, May 2025

Should We Learn Contact-Rich Manipulation Policies From Sampling-Based Planners?

Huaijiang Zhu, Tong Zhao, Xinpei Ni, Jiuguang Wang, Kuan Fang, Ludovic Righetti, Tao Pang

vol. 10, no. 6, pp. 6248-6255, June 2025

Density-Driven Progressive Shape Formation for Swarm Robots in Dynamic Environments

Yalun Xiang, Jintao Song, Zhicheng Zheng, Xiaokang Lei, Xingguang Peng

vol. 11, no. 2, pp. 1186-1193, Feb. 2026

GRAD-NAV++: Vision-Language Model Enabled Visual Drone Navigation With Gaussian Radiance Fields and Differentiable Dynamics

Qianzhong Chen, Naixiang Gao, Suning Huang, JunEn Low, Timothy Chen, Jiankai Sun, Mac Schwager

vol. 11, no. 2, pp. 1418-1425, Feb. 2026

Self-Wearing Adaptive Garments via Soft Robotic Unfurling

Nam Gyun Kim, William E. Heap, Yimeng Qin, Elvy B. Yao, Jee-Hwan Ryu, Allison M. Okamura

vol. 11, no. 1, pp. 802-809, Jan. 2026

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IEEE Robotics and Automation Letters
Best Paper Award - Honorable Mentions

Exosense: A Vision-Based Scene Understanding System for Exoskeletons

Jianeng Wang; Matias Mattamala; Christina Kassab; Guillaume Burger; Fabio Elnecave; Lintong Zhang; Marine Petriaux; Maurice Fallon

vol. 10, no. 4, pp. 3510-3517, April 2025

Multi-Robot Autonomous 3D Reconstruction Using Gaussian Splatting With Semantic Guidance

Jing Zeng; Qi Ye; Tianle Liu; Yang Xu; Jin Li; Jinming Xu; Liang Li; Jiming Chen

vol. 10, no. 6, pp. 5617-5624, June 2025

Tactile Object Recognition With Recurrent Neural Networks Through a Perceptive Soft Gripper

Enrico Donato; David Pelliccia; Matin Hosseinzadeh; Mahmood Amiri; Egidio Falotico

vol. 10, no. 7, pp. 7023-7030, July 2025

Learning Efficient and Robust Language-Conditioned Manipulation Using Textual-Visual Relevancy and Equivariant Language Mapping

Mingxi Jia; Haojie Huang; Zhewen Zhang; Chenghao Wang; Linfeng Zhao; Dian Wang; Jason Xinyu Liu; Robin Walters; Robert Platt; Stefanie Tellex

vol. 10, no. 8, pp. 8204-8211, Aug. 2025

First, Learn What You Don't Know: Active Information Gathering for Driving at the Limits of Handling

Alexander Davydov; Franck Djeumou; Marcus Greiff; Makoto Suminaka; Michael Thompson; John Subosits; Thomas Lew

vol. 10, no. 11, pp. 11379-11386, Nov. 2025

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IEEE Robotics and Automation Letters
Outstanding Associate Editors

Feifei Qian
University of Southern California, USA

Cristina Piazza
Technical University of Munich, Germany

Hiroyuki Kajimoto
The University of Electro-communications, Japan

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Kangwon National University, South Korea

Bin Zi
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Mohamed bin Zayed University of Artificial Intelligence, UAE

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Ekta Samani
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IEEE Robotics and Automation Letters

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Ting Zou
Memorial University, Canada

Liang Hu
Harbin Institute of Technology, China

Guangming Wang
University of Cambridge, UK

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IEEE Robotics and Automation Magazine
Best Paper Award

Toward Fully Autonomous Aviation: PIBOT, a Humanoid Robot Pilot for Human-Centric Aircraft Cockpits

Sungjae Min, Gyuree Kang, Hyungjoo Kim, and David Hyunchul Shim

IEEE Robotics and Automation Magazine: vol. 32, no. 1, March 2025

This work describes the development of PIBOT, a humanoid robot that can pilot unmodified general aviation aircraft, physically manipulating instruments while following strict rules of the air and verbally communicating with copilots and air traffic controllers.

IEEE Robotics and Automation Magazine
Distinguished Service Awards

Stefano Carpin
Outstanding Reviewer

George Mesesan
Outstanding Reviewer

Matteo Russo
Outstanding Associate Editor

Jim Torresen
Outstanding Guest Editor

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IEEE Transactions on
Automation Science and Engineering
Best Paper Award

Automated Constraint Specification for Job Scheduling by Regulating Generative Model With Domain-Specific Representation

Yu-Zhe Shi, Qiao Xu, Yanjia Li, Mingchen Liu, Huamin Qu, Lecheng Ruan, and Qining Wang

vol. 23, pp 3683-3698, 2026

For developing a novel constraint-centric architecture that enables reliable large language model (LLM)-based automation of production scheduling in advanced manufacturing systems.

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IEEE Transactions on Automation Science and Engineering Best Paper Award - Honorable Mention

Simulation Optimization of Spatiotemporal Dynamics in 3D Geometries

Bing Yao, Fabio Leonelli, and Hui Yang

vol. 22, pp. 10442-10456, 2025

FoundationGrasp: Generalizable Task-Oriented Grasping With Foundation Models

Chao Tang, Dehao Huang, Wenlong Dong, Ruinian Xu, and Hong Zhang

vol. 22, pp. 12418-12435, 2025

High-Quality Dataset-Sharing and Trade Based on a Performance-Oriented Directed Graph Neural Network

Yingyan Zeng, Xiaona Zhou, Premith Kumar Chilukuri, Ismini Lourentzou, and Ran Jin

vol. 22, pp. 15576-15587, 2025

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IEEE Transactions on
Automation Science and Engineering
Best New Application Paper Award

QP Chaser: Polynomial Trajectory Generation for Autonomous Aerial Tracking

Yunwoo Lee, Jungwon Park, Seungwoo Jung, Boseong Jeon, Dahyun Oh, and H. Jin Kim

vol. 22, pp 24177-24194, 2025

For proposing a unified quadratic programming (QP)-based trajectory planning framework for robust aerial tracking with continuous target visibility under uncertainty.

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IEEE Transactions on Automation Science and Engineering Best New Application Paper Award Honorable Mentions

Morphology Transformation of Underwater Self-Reconfigurable Modular Robots via Heterogeneous Decomposition and Distributed Control

Wenjie Lu and Manman Hu

vol. 22, pp. 10698- 10712, 2025

Risk-Aware and Scalable Hierarchical Motion Planning for Large-Scale Robotic Swarms via CVaR-Constrained MPC

Xuru Yang, Yuqiao Zhao, Yunze Hu, Zongru Yang, Pingping Zhu, Ying Sun, Chang Liu

vol. 23, pp. 1683-1700, 2026

Grasp Failure Constraints for Fast and Reliable Pick-and-Place Using Multi-Suction-Cup Grippers

Jee-Eun Lee, Robert Sun, Andrew Bylard, Luis Sentis

vol. 23, pp. 317-331, 2026

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IEEE Transactions on
Medical Roboticsand Bionics
Best Paper Award

Semi-autonomous Prosthesis Control Using Minimal Depth Information and Vibrotactile Feedback

Miguel Nobre Castro; Strahinja Dosen

vol. 7, no. 4, pp. 1646-1657, Nov. 2025

The study proposes a method to reconstruct the shape of various everyday objects from minimal depth data using a depth sensor with four laser scanners. Vibrotactile feedback was also designed to help users correctly aim the sensor at target objects. Experimental results on ten healthy volunteers demonstrate an important step towards a compact vision-based system for embedded depth sensing in prosthetic grasping.

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Special Recognition

RAS recognizes the following Administrative Committee (AdCom) Members and Officers whose terms ended in 2025.

Their dedication and hard work is greatly appreciated!

Alin Albu-Schaeffer

Bengt Lennartson

Yasuhisa Hirata

Eiichi Yoshida

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Creating a world class technical program for ICRA requires the contributions of many.

With the following awards, IEEE RAS recognizes individuals who provided outstanding contributions to the Conference Editorial Board, which is responsible for reviewing the submissions to ICRA.

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ICRA 2026 Awards
Conference Editorial Board Awards

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Conference Editorial Board Awards

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ICRA 2026 Awards

IEEE ICRA Best Paper Award...

- in **Automation**
- on **Robot Learning**
- on **Human-Robot Interaction**
- on **Mechanisms and Design**
- in **Medical Robotics**
- in **Automation**
- on **Robot Learning**
- on **Human-Robot Interaction**
- on **Mechanisms and Design**
- in **Medical Roboticst**

- IEEE ICRA **Best Student Paper Award**
- IEEE ICRA Best **Conference Paper Award**

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ICRA 2026 Awards

IEEE ICRA Best Paper Award in Automation Finalists

IMR-LLM: Industrial Multi-Robot Task Planning and Program Generation using Large Language Models
Xiangyu Su, Juzhan Xu, Oliver van Kaick, Kai Xu, and Ruizhen Hu

ETac: A Lightweight and Efficient Tactile Simulation Framework for Learning Dexterous Manipulation
Zhe Xu, Feiyu Zhao, Xiyan Huang, and Chenxi Xiao

Ro-To-Go! Robust Reactive Control with Signal Temporal Logic
Roland Ilyes, Lara Brudermüller, Nick Hawes, and Bruno Lacerda

LASER: Level-Based Asynchronous Scheduling and Execution Regime for Spatiotemporally Constrained Multi-Robot Timber Manufacturing
Zhenxiang Huang, Lior Skoury, Tim Stark, Aaron Wagner, Hans-Jakob Wagner, Thomas Wortmann, and Achim Menges

Awards Committee: Maria Pia Fanti - Chair *(Politecnico Di Bari, Italy), Bengt Lennartson (Chalmers University, Sweden), Dawn Tilbury (University of Michigan, USA)*

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ICRA Best Paper Award on Robot Learning Finalists

GRITS: A Spillage-Aware Guided Diffusion Policy for Robot Food Scooping Tasks

Yen-Ling Tai, Yi-Ru Yang, Kuan-Ting Yu, Yu-Wei Chao, and Yi-Ting Chen

Hierarchical DLO Routing with Reinforcement Learning and In-Context Vision-Language Models

Mingen Li, Houjian Yu, Yixuan Huang, Youngjin Hong, Hantao Ye, and Changhyun Choi

FP3: A 3D Foundation Policy for Robotic Manipulation

Rujia Yang, Geng Chen, Chuan Wen, and Yang Gao

Do You Know Where Your Camera Is? View-Invariant Policy Learning with Camera Conditioning

Tianchong Jiang, Jingtian Ji, Xiangshan Tan, Jiading Fang, Anand Bhattad, Vitor Guizilini, and Matthew Walter

Awards Committee: Aleš Ude - Chair *(Jožef Stefan Institute, Slovenia), Wolfram Burgard (University of Technology Nuremberg, Germany), Jun Morimoto (Kyoto University, Japan), Nadia Figueroa (University of Pennsylvania, USA), Dongheui Lee (TU Wien, Austria)*

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ICRA Best Paper Award on Human-Robot Interaction - Finalists

HEXAR: A Hierarchical Explainability Architecture for Robots

Tamlin Love, Ferran Gebellí, Pradip Pramanick, Antonio Andriella, Guillem Alenyà, Anaís Garrell, Raquel Ros, and Silvia Rossi

Uncertainty Comes for Free: Human-In-The-Loop Policies with Diffusion Models

Zhanpeng He, Yifeng Cao, and Matei Ciocarlie

SA-VLM V2: Useful, Comprehensive, and Concise Guidance for Guide-Dog Robots Assisting the Visually Impaired

Woo-han Yun, JaeHo Shin, BeomSu Seo, Jaehong Kim, and ByungOk Han

Awards Committee: Angelika Peer - Chair *(Free University of Bozen-Bolzano, Italy), Georgia Chalvatzaki (Technical University of Darmstadt, Germany), Tetsunari Inamura (Tamagawa University, Japan), Takayuki Kanda (Kyoto University, Japan)*

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ICRA Best Paper Award on Mechanisms and Design - Finalists

Design and Implementation of an Angle-Bisecting Foot Mechanism for a Leg-Wheel Transformable Robot
Hsing-Chen Lee, Wei-Shun Yu, and Pei-Chun Lin

DigiArm: An Anthropomorphic 3D-Printed Prosthetic Hand with Enhanced Dexterity for Typing Tasks
Dean Zadok, Tom Naamani, Yuval Bar-Ratson, Elisha Barash, Oren Salzman, Alon Wolf, Alexander Bronstein, and Nili Krausz

Relaxation Dynamics in Oblate Spherical Rolling Robots
Micah Oevermann and Robert Ambrose

A Novel Bio-Inspired Fish Robot with Tunable Stiffness Via Particle Jamming
Jack Stonecipher, Allen Gao, and Wei Wang

Awards Committee: Nikos Tsagarakis - Chair *(Italian Institute of Technology, Italy), Moju Zhao (University of Tokyo, Japan), Kyujin Cho (Seoul National University, South Korea)*

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ICRA Best Paper Award in Medical Robotics Finalists

RCM Constraint-Consistent Dynamic Control in Surgical Robots

Yu Li, Hamid Sadeghian, Zewen Yang, Valentin Le Mesle, and Sami Haddadin

One-Shot Autofocus Via User-Adaptive Gaze Control for Robot-Assisted Microsurgery

Yunfei Luan, Yuxuan Liu, Yuyang Zhuge, Yating Luo, Yao Guo, and Guang-Zhong Yang

SurgAM: Surgical Affordance Map Prediction with Multimodal Feature Fusion for Robot Autonomy

Lei Song, Yonghao Long, Mengya Xu, Jiayi Geng, Xiuyuan Chen, and Qi Dou

Geometry-Aware Visual Odometry for Bronchoscopic Navigation Via High-Gain Observer Fusion

Mohammadreza Kasaei, Francis Xiatian Zhang, Feng Li, Farshid Alambeigi, Kev Dhaliwal, and Mohsen Khadem

Awards Committee: Kaspar Althoefer - Chair (Queen Mary University of London, UK), Elena De Momi (Politecnico di Milano, Italy), Sanja Dogramadzi (University of Sheffield, UK), Jee-Hwan Ryu (Korea Advanced Institute of Science and Technology, South Korea)

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ICRA Best Paper Award on Multi-Robot Systems Finalists

Dynamics Modeling of a Multi-UAV Slung Load System Using a Discrete-Link Cable Approach

Harvey Merton and Ian Hunter

A Distributed Gaussian Process Model for Multi-Robot Mapping

Seth Nabarro, Mark van der Wilk, and Andrew J Davison

Optimal Multi-Robot Planning for Simultaneous Area and Line Coverage

Tianyuan Zheng, Kaiyan Yu, Mingyang Gao, and Jingang Yi

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ICRA Best Paper Award on Robot Manipulation and Locomotion - Finalists

Dexora: Open-Source VLA for High-DoF Bimanual Dexterity

Zongzheng Zhang, Jingrui Pang, Zhuo Yang, Kun Li, Minwen Liao, Saining Zhang, Guoxuan Chi, Jinbang Guo, Huan-ang Gao, Modi Shi, Dongyun Ge, Yao Mu, Jiayuan Gu, Rui Chen, Hao Dong, Huazhe Xu, Li Yi, Yixin Zhu, Hang Zhao, Pengwei Wang, Shanghang Zhang, Guocai Yao, Jianyu Chen, Hongyang Li, and Hao Zhao

Robotic Dexterous Manipulation Via Anisotropic Friction Modulation Using Passive Rollers

Ethan Fisk, Taeyoon Lee, and Shenli Yuan

Bi-Adapt: Few-Shot Bimanual Adaptation for Novel Categories of 3D Objects Via Semantic Correspondence

Jinxian Zhou, Ruihai Wu, Yiwei Liu, Checheng Yu, Xunzhe Zhou, Yiwen Hou, Licheng Zhong, and Lin Shao

OmniRetarget: Interaction-Preserving Data Generation for Humanoid Whole-Body Loco-Manipulation and Scene Interaction

Lujie Yang, Xiaoyu Huang, Zhen Wu, Angjoo Kanazawa, Pieter Abbeel, Carmelo Sferrazza, Karen Liu, Yan Duan, and Guanya Shi

Push Anything: Single and Multi-Object Pushing from First Sight with Contact-Implicit MPC

Hien Bui, Yufeiyang Gao, Haoran Yang, Eric Cui, Siddhant Mody, Brian Acosta, Thomas Stephen Felix, Bibit Bianchini, and Michael Posa

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ICRA Best Paper Award on Robot Perception Finalists

LR-SGS: Robust LiDAR-Reflectance-Guided Salient Gaussian Splatting for Self-Driving Scene Reconstruction

Ziyu Chen, Fan Zhu, Hui Zhu, Deyi Kong, Xinkai Kuang, Yujia Zhang, and Chunmao Jiang

FindAnything: Open-Vocabulary and Object-Centric Mapping for Robot Exploration in Any Environment

Sebastián Barbas Laina, Simon Boche, Sotiris Papatheodorou, Simon Schaefer, Jaehyung Jung, Helen Oleynikova, and Stefan Leutenegger

KISS-IMU: Self-Supervised Inertial Odometry with Motion-Balanced Learning and Uncertainty-Aware Inference

Jiwon Choi, Hogyun Kim, Geonmo Yang, Juhui Lee, and Younggun Cho

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ICRA Best Paper Award in Field and Service Robotics - Finalists

Planar-Sector LOS Guidance for Interception of Agile Targets with Lifting-Wing Quadcopters

Linkai Liu, Kun Yang, Han Zou, Chen Min, Shuli Lv, Shuai Wang, and Quan Quan

GuideTWSI: A Diverse Tactile Walking Surface Indicator Dataset from Synthetic and Real-World Images for Blind and Low-Vision Navigation

Hochul Hwang, Soowan Yang, Nhat Hong Anh Nguyen, Parth Goel, Krisha Adhikari, Sunghoon Ivan Lee, Joydeep Biswas, Nicholas Giudice, and Donghyun Kim,

Sonar-MASt3R: Real-Time Opti-Acoustic Fusion in Turbid, Unstructured Environments

Amy Phung and RichardCamilli

Awards Committee: Joshua Marshall - Chair *(Queen's University, Canada), François Pomerleau (Université Laval, Canada), Peyman Moghadam (CSIRO, Australia), Claire Dune (Université de Toulon, France), Genya Ishigami (Keio University, Japan), Johann Laconte (INRAE, France)*

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ICRA Best Paper Award on Planning and Control Finalists

HITTER: A HumanoId Table TEnnis Robot Via Hierarchical Planning and Learning

Zhi Su, Bike Zhang, Nima Abraham Rahmanian, Yuman Gao, Qiayuan Liao, Caitlin Regan, Koushil Sreenath, and Shankar Sastry

SymSkill: Symbol and Skill Co-Invention for Data-Efficient and Reactive Long-Horizon Manipulation

Yifei Shao, Yuchen Zheng, Sunan Sun, Pratik Chaudhari, Vijay Kumar, and Nadia Figueroa

ActivePusher: Active Learning and Planning with Residual Physics for Nonprehensile Manipulation

Zhuoyun Zhong, Seyedali Golestaneh, and Constantinos Chamzas

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- **Robot Learning:** Aleš Ude
- **Human-Robot Interaction:** Angelika Peer
- **Mechanisms and Design:** Nikos Tsagarakis
- **Medical Robotics:** Kaspar Althoefer
- **Multi-Robot Systems:** M. Ani Hsieh
- **Robot Manipulation and Locomotion:** Jing Xiao
- **Robot Perception:** Ayoung Kim
- **Field and Service Robotics:** Joshua Marshall
- **Planning and Control:** Hanna Kurniawati
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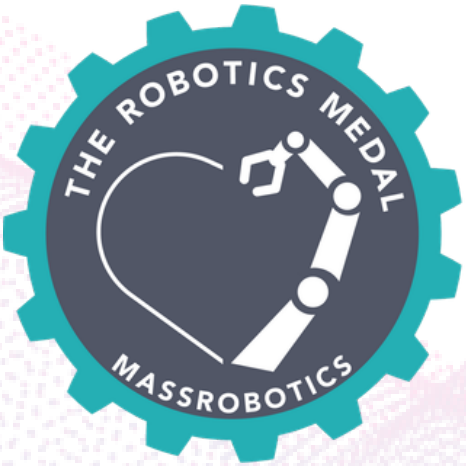

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