



Join us & discuss and shape the Future of Robotics at the 1st IEEE IROS Futurist Forum

Robotics will change the world!
It will unleash the same if not an even more disruptive and transformational power within the next 50 years as mainstream IT-technology and the Internet have in the last half of a decade.
Help us defining a commonly shared understanding of the future and spark the debate about guidelines and frameworks:
Robotic Governance!



1st IEEE IROS Futurist Forum

Wednesday,
September 30, 2015
11:30 - 16:00, Hall 2

Agenda

Shaping a united vision for the future of robotics

The *Futurist Forum* brings together interdisciplinary experts from different domains, such as Epistemology, Industry, Government, Robotics Research and other fields in order to discuss a common vision of the future.

This vision is crucial for paving the way for a new *Generation 'R'* of *Robotic Natives*: the need to discuss and establish a set of guidelines and frameworks to address questions about the ethical, juridical, social and political impact of robotics on our daily life will arise.

Thus, the *Futurist Forum* will lay the foundations for an elaborate debate on *Robotic Governance* in which stakeholders from diverse domains have to be involved – from robotics and other interdisciplinary fields; from science and research, industry, politics and society.

11:30 – **Keynote & Discussion**
(Gerd Hirzinger & Oussama Khatib)

12:30 - **IT-Security meets Safety – The future of Security**
(Christoph Peylo)

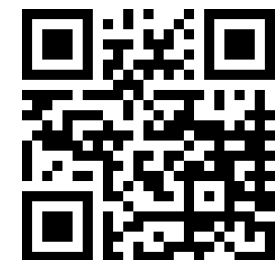
13:00 - **Lunch Break**

13:45 - **The Future of Work – Reinventing Productivity**
(Harald Becker)

14:15 - **The Future Personal Robots: Digital Natives**
(Tim Yuan)

14:45 - **Future of Government**
(Juha Heikkilä)

15:15 - **Panel Discussion – Q&A**



Keynote Speakers



Prof. Dr. Gerd Hirzinger

Gerd Hirzinger received his Dipl.-Ing. degree and the doctor's degree from the Technical University of Munich, in 1969 and 1974 respectively. In 1969 he joined DLR (the German Aerospace research establishment) where he first worked on fast digital control systems. 1976 he became head of the automation and robotics laboratory of DLR, where he and his co-workers soon got several awards for innovative technology transfer from robotics research to applications. In 1991 he received a joint professorship from the Technical University of Munich. Since 1992 he has been director at DLR's institute for "robotics and mechatronics". He has published more than 100 papers in robotics, mainly on robot sensing, sensory feedback, mechatronics, man-machine interfaces, telerobotics and space robotics. He received several national and international awards.



Prof. Dr. Oussama Khatib

Oussama Khatib received his PhD from Sup'Aero, Toulouse, France, in 1980. He is Professor of Computer Science at Stanford University. His research focuses on methodologies and technologies in human-centered robotics. He is Co-Editor of the Springer Tracts in Advanced Robotics (STAR) series and the Springer Handbook of Robotics. Professor Khatib is the President of the IFRR. He has been the recipient of numerous awards.

Speakers



Harald Becker

He is a Sr. Design Strategist at Microsoft, leads business strategy, research & customer engagements for the Envisioning team and is responsible for creating and executing programs. Prior to his role on the Envisioning team, Harald was a Marketing Manager at Microsoft's New York office. Before joining Microsoft in 2003, Harald was a Principal Consultant at a Silicon Valley start-up. He also worked seven years at Sun Microsystems in various marketing and sales operation roles. Harald earned an MBA from the University of San Francisco and a BA in Marketing from Wirtschaftsakademie Hamburg in Germany.



Dr. Juha Heikkilä

I joined the European Commission in 1998, and I currently work in its Directorate-General for Communications Networks, Content and Technology. For more than ten years, I have been working in the unit now called Robotics, first as a Project Officer, since 2008 as the Deputy Head of Unit, and since May 2014 as the Head of Unit. The unit has been funding a multidisciplinary research programme on Cognitive Systems and Robotics for more than ten years, focusing on smarter and more flexible robots and artificial systems. I was involved in computational and corpus linguistic research at the University of Helsinki, and I did a PhD in Linguistics at the University of Cambridge.



Dr. Christoph Peylo

He is VP at Deutsche Telekom Laboratories in Berlin. He is member of the management board of Deutsche Telekom Innovation Laboratories at Ben Gurion University of the Negev and Board member of German Turkish Advanced Research Center for Information and Communication Technologies. Prior to joining the Innovation Laboratories in September 2008 he worked in various positions from software engineer to managing director of a software company, mainly in the field of M2M and risk management systems. Dr. Peylo has studied Computer Science, Computational Linguistics and AI at University of Osnabrück and acquired his Ph.D. there in the field of AI.



Tim Yuan

He is VP of Huawei Central Research Institute. He has been active in research and development for 20 years with experience in packet-based networking and artificial intelligence technologies including information centric networking, soft-defined networking, the future internet and machine learning. His talk discusses how to cross the chasm of personal robots market by leveraging the smartphone ecosystem and introduces Huawei's research on Digital Natives.



Dominik Bösl (Chair)

As Corporate Innovation Manager at KUKA AG, Dominik Bösl is responsible for Innovation and Technology Management at KUKA since he joined the company in 2011. He started his career at Siemens, before joining Microsoft Germany. Dominik holds a diploma in Computer Science from the University of Augsburg and an MBA degree from the University of Pittsburgh. Beside his career, he is a university lecturer and author of various technical and scientific publications.

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Please feel free to contact us at any time with feedback, suggestions or if you want to contribute.

We cordially thank the speakers, the IROS chairs with team, the IEEE and all supporters that helped to realize the 1st IEEE IROS Futurist Forum! We hope, the event will be carried on as an annual part of IROS.

Hopefully, we could inspire you and spark the discussion about Robotic Natives, Generation 'R' and Robotic Governance!

The outcomes of the forum will be summed up and published in different ways – please stay tuned and stop by at our website from time to time: www.roboticgovernance.com!