Angelika Peer

Prof. Dr.-Ing.

Academic Employment

Nov 2017 - dato	Full Professor Free University of Bolzano, Bolzano, Italy
Sep 2014 - Oct 2017	Full Professor in Robotics Bristol Robotics Laboratory University of the West of England, Bristol, UK
Dec 2012 - Aug 2014	Akademische Oberrätin Technische Universität München, Munich, Germany
Nov 2006 - Nov 2012	Akademische Rätin Technische Universität München, Munich, Germany
May 2011 - Aug 2014	Senior researcher and lecturer and TUM-IAS Carl von Linde Junior Fellow affiliated with Institute of Automatic Control Engineering Department of Electrical Engineering and Information Technology Technische Universität München, Munich, Germany
July 2008 - May 2011	Postdoctoral researcher and lecturer Institute of Automatic Control Engineering Department of Electrical Engineering and Information Technology Technische Universität München, Munich, Germany
Nov 2006 – July 2008	Research assistant (C1), doctoral student Institute of Automatic Control Engineering Department of Electrical Engineering and Information Technology Technische Universität München, Munich, Germany
Jan 2004 – Nov 2006	Research assistant, doctoral student Institute of Automatic Control Engineering Department of Electrical Engineering and Information Technology Technische Universität München, Munich, Germany

Education

Jul 2008	Doctor of engineering degree (Dr.-Ing.) Doctoral thesis "Design and Control of Admittance-Type Telemanipulation Systems" Department of Electrical Engineering and Information Technology Technische Universität München, München, Germany Grade *summa cum laude* This thesis was awarded the PhD award 2009 of the Bund der Freunde of the Technische Universität München e.V. and was nominated for the EURON Georges Giralt PhD Award 2010
Nov 2003	Diplom-Ingenieur (diploma degree) Electrical Engineering and Information Technology Basis course: Automation technology Specialization: Industrial information technology Fundamentals in mechatronics Faculty of Electrical Engineering and Information Technology Technische Universität München, München, Germany *with distinction*, grade 1.2 (scale 1-5, 1 is best) Diploma thesis: "Modelling and control of a force-feedback actuator for steer-by-wire systems" This thesis was performed at the Department of Robotics and Mechatronics of the German Aerospace Centre (DLR) and was awarded the Werner von Siemens Excellence Award 2004
Oct 2002	Bachelor of Science in Electrical Engineering and Information Technology, Technische Universität München, München, Germany *with distinction*, grade 1.4 (scale 1-5, 1 is best) Bachelor thesis: "Development of a software environment for the implementation of a remote laboratory experiment"
Oct 1999 – Nov 2003	Student of Electrical Engineering and Information Technology, Technische Universität München, Munich, Germany
Jul 1999	Abitur at "Technische Gewerbeoberschule Max Valier" Specialization: Electrical Engineering and Automation *with distinction*, grade 100/100 (scale 1-100, 100 is best)
1994 - 1999	Technical and Industrial High School "Max Valier", Bozen, Italy
1986 - 1994	Primary, secondary school, Olang, Italy

Summer Schools, Mentoring, and Seminars

2012	Participation in "Motor control summer school IX", Tihany, Hungary
2009	Participation in "Leadership - Management know-how for Postdoctoral and Senior Researchers" Technische Universität München, Munich, Germany
2007	Participation in Science Career II: program for PhD students, Technische Universität München, Munich, Germany
Feb 2007	Participation in "Workshop - Coaching as method" of the Carl von Linde Akademie, Munich, Germany
Feb 2006	Participation in seminar "Design of experiments and introduction to statistical methods", Human Factors Institute of the University of Armed Forces, Munich, Germany
Sep 2006	Participation in IEEE-RAS/IFRR Summerschool of Robotics Science on Haptic Interaction, Paris, France
Feb 2005	Participation in seminar "Academic teaching compact" Technische Universität München, Munich, Germany
2003 - 2004	Participation in mentorING as a mentor for students, mentoring program for scholars, students and entrants, Technische Universität München, Munich, Germany
May 2003	Participation in summer school "Stability and dynamics of large scale systems", Tutzing, Germany
Sep/Oct 2001	Participation in summer school "Product innovation - a result of integrated computer and method usage", Sarntal, Italy

Internships and Research Student Activities

Apr 2003 – Oct 2003   Diploma thesis: "Modelling and control of a force-feedback
actuator for steer-by-wire systems"
Department of Robotics and Mechatronics,
German Aerospace Center (DLR),
Oberpfaffenhofen, Germany and
Institute of Automation and Control Engineering,
Faculty of Electrical Engineering and Information Technology
Technische Universität München, Munich, Germany

Mar 2002 – Jun 2002   Bachelor thesis: "Development of a software environment
for the implementation of a remote laboratory experiment"
Institute of Automation and Control Engineering,
Faculty of Electrical Engineering and Information Technology
Technische Universität München, Munich, Germany

Oct 2002 – Feb 2003   Research student, Practical course, Project "Multi-fingered
haptic display of surface textures"
Institute of Automation and Control Engineering
Faculty of Electrical Engineering and Information Technology
Technische Universität München, Munich, Germany

Jun 2001 – Dec 2002   Research student, Project "Learnet: Learning
and experimenting by using real technical systems
in the network"
Institute of Automation and Control Engineering
Faculty of Electrical Engineering and Information Technology
Technische Universität München, Munich, Germany

Mar 2001 – Apr 2001   Trainee at Infineon, Munich, Germany
Department "Micromechanics"

Mar 2000 – Apr 2000   Trainee at Bayernwerk Netz, Munich, Germany
Department "Gleichstromkurzkupplung"

Jun 2000 – Jul 2000,   Research student
Nov 2000 – Jan 2001,   Institute for Measurement Systems and Sensor Technology
May 2001   Technische Universität München, Munich, Germany

Research

Research Interests

Robotics, Control, Human-System Interaction: Telepresence and Teleaction Systems, Haptic Interaction, Human Motor Control, Haptic Perception, Brain and Body Computer Interface Controlled Robots

Honors

– 2014 NextMed MMVR21 Best Poster Award, A. Peer, M. Buss, B. Stanczyk, D. Szczesniak-Stanczyk, W. Brzozowski, A. Wysokinski, M. Tscheligi, C. A. Avizzano, E. Ruffaldi, L. v. Gool, A. Fossati, K. Arent, J. Jakubiak, and M. Janiak, Towards a Remote Medical Diagnostican for Medical Examination

– 2013 IEEE Ro-Man Best Poster Presentation Award, A. Ergin and A. Peer, Development of a New 6 DoF Parallel Haptic Interface for the Rendering of Elements and Interior Equipment in a Car

– 2010 Citation for Meritorious Service in recognition of the outstanding work as a reviewer for the IEEE Transactions on Haptics

– Nominated for EURON Georges Giralt PhD Award 2010
for the PhD thesis *Design and Control of Admittance-Type Telemanipulation Systems*

– PhD award 2009, Bund der Freunde of the Technische Universität München e.V.
for the PhD thesis *Design and Control of Admittance-Type Telemanipulation Systems*

– SICE 2008 student travel grant award for the paper
Robust Stability Analysis of Bilateral Teleoperation Systems Using Admittance-Type Devices

– Werner von Siemens Excellence Award 2004 for the diploma thesis
Modelling and Control of a Force-Feedback Actuator for Steer-by-Wire Systems

Research Grants & Project Responsibility

– Coordinator of the project, principal investigator and leader of TUM/UWE group in the EU project *"ReMeDi"*
Call FP7-ICT-2013.10.2 ICT for Cognitive Systems and Robotics, Contract No 610902
Instrument : STREP, grant 3,08 MEuro (600 kEuro TUM), duration: Dec 2013 - Feb 2017
Project website: http://www.remedi-project.eu/
Partners:
- University of the West of England, Bristol, UK: A. Peer (coordinator, transferred to UWE from Sep 2014)
- Technische Universität München, Germany: , A. Peer (till Aug 2014), M. Buss
- ACCREA Engineering, Poland: B. Stanczyk
- Medical University Lublin, Poland: W. Brzozowski
- ICT&S Center Salzburg, Austria: M. Tscheligi
- Scuola Superiore Sant' Anna, Italy: C.A. Avizzano
- Eidgenössische TEchnische Hochschule Zürich, Switzerland: L. Van Gool
- Wroclaw University of Technology, Poland: K. Arent

– Coordinator of the project, principal investigator and leader of TUM/UWE group in the EU project *"MOBOT"*
Call FP7-ICT-2011.2.1 ICT for Cognitive Systems and Robotics, Contract No 600796
Instrument : STREP, grant 3,15 MEuro (750 kEuro TUM), duration: Feb 2013 - July 2016
Project website: http://www.mobot-project.eu/
Partners:
- University of the West of England, Bristol, UK: A. Peer (coordinator, transferred to UWE from Sep 2014) - Technische Universität München, Germany: , A. Peer (till Aug 2014), M. Buss
- National Technical University of Athens, Greece: P. Maragos, C. Tzafestas
- Institut National de Recherche en Informatique et Automatique, France: I. Kokkinos
- Heidelberg University, Germany: K. Mombaur
- Institute for Language and Speech Processing, Greece: S. Fotinea, E. Efthimiou
- ACCREA Engineering, Poland: B. Stanczyk
- Agaplesion Bethanien Hospital/ Geriatric Centre, University of Heidelberg, Germany: K. Hauer
- Diaplasis Rehabilitation Center S.A., Greece: C. Virvilis, I. Koumpouros

– Principal investigator of the DFG project *"VR system for visuo-haptic stimulation during fMRI studies"* funded by the German Research Foundation,
Instrument : national project (transferred to UK with Sep 2014), grant TUM/UWE part 340 kEuro, duration: Feb 2014 - Sep 2017
co-proposer: Axel Thielscher, Klaus Scheffler (Max Planck Institute, Tübingen)

– Principal investigator of the transfer project *"Haptics of control elements and interior equipment in the car"* funded by the German Research Foundation,
Instrument : national project, grant 480 kEuro, duration: Jan 2011 - Dec 2013
co-proposer: S. Hirche (TUM)

– Principal investigator and leader of TUM/UWE group in the EU project *"VERE"*
Call FP7-ICT-2009-8.4 Human Computer Confluence, Contract No 257695
Instrument : IP, grant 8,5 MEuro (750 kEuro TUM), duration: June 2010 - June 2015
Project website: http://www.vereproject.org
Partners:
- Universitat de Barcelona, Spain: M. Slater (coordinator)
- Consorci Institut d'Investigacions Biomediques August Pi I Sunyer, Spain: M.V. Sanchez-Vives
- Guger Technologies OEG, Austria: Ch. Guger
- Technische Universität München, Germany: M. Buss, S. Hirche, A. Peer (till Aug 2014)
- Scuola Superiore Sant' Anna, Italy : M. Bergamasco
- Centre National de la Recherche Scientifique, France: A. Kheddar
- Ecole Polytechnique Federale de Lausanne, Switzerland: O. Blanke
- Fondazione Santa Lucia, Italy: S. M. Aglioti
- Johannes Gutenberg-Universitt Mainz, Germany : Th. Metzinger
- Weizmann Institute, Israel: T. Flash, R. Malach
- Instituto de Telecomunicacoes, Portugal: V.C. Orvalho
- Interdisciplinary Centre Herzliya, Israel: D. Friedman
- University College London, UK: P. Haggard
- University of the West of England, Bristol, UK: A. Peer (from Oct 2014)

– Principal investigator and leader of TUM group in the EU project *"BEAMING"*
Call FP7-ICT-2009-4, Contract No FP7-248620
Instrument : IP, grant 11.5 MEuro (1.2 MEuro TUM), duration: Jan 2010 - Jan 2014
Project website: http://www.beaming-eu.org
Partners:
- Starlab Barcelona, Spain: G. Ruffini
- Universitat de Barcelona, Spain: M. Slater
- University College London, United Kingdom: A. Steed
- Swiss Federal Institute of Technology, Switzerland: G. Szekely
- Scuola Superiore Sant' Anna, Italy: M. Bergamasco
- Technion - Israel Institute of Technology, Israel: M. Reiner
- Interdisciplinary Center Herzliya, Israel: D. Friedman
- IBM Haifa Research Lab, Israel: B. Cohen
- Consorci Institut d'Investigacions Biomediques August Pi i Sunyer, Spain: M. V. Sanchez-Vives
- Aalborg Universitet, Denmark: D. Hammershoi
- Technische Universität München, Germany: M. Buss, A. Peer

– Principal investigator and leader of the project *"Control Methods for Multi-User Telepresence and Teleaction Systems - Stability, Performance, Assistance and Co-Presence"* within the Collaborative Research Centre SFB453 "High-Fidelity Telepresence and Teleaction" funded by the German Research Foundation
Instrument : national project, grant 620 kEuro, duration: Jan 2008 - Dec 2010
co-proposer: M. Buss (TUM)

Project website: www.sfb453.de

– Responsibility for TUM group in the EU project *"IMMERSENCE"*
Call FP6-2004-IST-4, Contract No FP6-27141
Instrument : IP, overall grant: 5,55 MEuro, duration: Feb 2006 - May 2010
Project website: http://www.immersence.info
Partners:
- Technische Universität München, Germany: M. Buss (coordinator)
- Swiss Federal Institute of Technology, Switzerland: G. Szekely
- University of Evry, France: A. Kheddar
- Max Planck Institute, Tübingen: Dr. M.O. Ernst
- University of Pisa, Italy: P. Petrini
- University Birmingham, Britain: A. Wing
- Universidad Politecnica de Madrid, Spain: M. Ferre
- Technion de Haifa, Israel: M. Reiner
- Universitat Politecnica de Catalunya, Spain: M. Slater

– Responsibility for TUM group in the EU project *"Robot@CWE"*
Call FP6-2002-IST-C, Contract No FP6-018654
Instrumtent: STREP, overall grant: 1,75 MEuro, duration: Sep 2006 - Oct 2009
Project website: http://www.robot-at-cwe.eu
Partners:
- Centre National de la Recherche Scientifique, France: A. Kheddar (coordinator)
- Universite de Carlos III de Madrid, Spain: C. Balaguer
- Technische Universität München, Germany: M. Buss
- ICT&S Center, Salzburg: Austria, M. Tscheligi
- Ecole Polytechnique Federale de Lausanne, Switzerland: A. Billard
- Dragados, SA, Spain: M. Bosch
- Hewlett-Packard Centre d'Innovation Europe, Italy: Di Girolami
- Space Applications Services, NV, Belgium: Aked

Teaching

Teaching

2013	Lecturer of the full semester course "Introduction to Robot Control" at Technische Universität München. The course covers the following topics: robot manipulators and vehicles, spatial object representation and transformation, programming of action plans, kinematic models of manipulators and robot vehicles (direct kinematics, inverse kinematics, differential kinematics, Jacobians, redundancy and singularity, kineto-static duality), Kinematic path/trajectory planning and execution in joint and task space, modeling of system dynamics (Lagrangian model, direct and inverse dynamics), manipulator control methods (position, impedance, force, hybrid control, task vs. joint space control, decentralized vs. centralized control, computed torque), exercises and applications. Part of this lecture is also the application of gained knowledge in parallel Matlab programming sessions and one final robot laboratory experiment.
2012	Lecturer of the full semester course "Fundamentals of Intelligent Robots" at Technische Universität München. The course covers the following topics: spatial object representation and transformation, programming of action plans, kinematic models of manipulators and robot vehicles, kinematic path/trajectory planning and execution, modeling of system dynamics, manipulator control methods, image sensors for robotic applications, basic image processing algorithms, manipulator software overview, exercises and applications. Part of this lecture is also the application of gained knowledge in parallel Matlab programming sessions and one final robot laboratory experiment.
2012	Lecturer of the full semester course "Optimization for control engineering" at Technische Universität München. The course covers the theory of static and dynamic optimization including optimal control as well as numerical methods.
2008 - 2014	Lecturer of the full semester course "Introduction to Haptics and Psychological Experiments" at Technische Universität München. The course did not exist before and was newly designed by myself. The course covers the following topics: haptic perception and information processing in humans, design, control and stability analysis of haptic interfaces, haptic rendering, modelling of virtual environments, haptics in teleoperation, experimental design, statistical analysis of experimental data, and psychophysics. Part of this lecture is further the application of gained knowledge in a final lab project.

2012	Lecturer at the "H-haptics autumn school", November 5-8, Delft, Netherlands
2011	Lecturer at the Ferienakademie "Schöne Neue Technikwelt - Das Zeitalter der intelligenten Maschinen", October 14-16, Tutzing, Germany
2011	Lecturer at the Conet Summer school "Networked Embedded Systems: Humans in the Loop", July 24-30, Bertinoro, Italy
2010-2012	Lecturer of single lecture on "Haptic interaction in human-human and human-robot dyads" which is part of the course "Dynamic human-robot interaction" organized by Prof. Dongheui Lee from Technische Universität München
2010	Lecturer in the "Summer School on Telerobotics" held at Technische Universität München, Munich, Germany
2008, 2009	Lecturer of single lecture on "Teleoperation" which is part of the course "Systems and Control I" at Technische Universität München
2005	Lecturer of tutorials for the course "Systems and Control I" at Technische Universität München
2004 - 2006	Organization of the practical course "High-Fidelity Telepresence and Telerobotics" and Advanced Seminar "Robotics and Automation" at Technische Universität München
2004, 2005	Tutor for the following student laboratories and practical courses held at Technische Universität München: i) Advanced Control Theory and Technology, ii) Automation Technology and Robotics, iii) High-Fidelity Telepresence and Telerobotics
2000	Tutor for the practical course in informatics, Institute for Data Processing, Technische Universität München, Munich, Germany
2000	Tutor for homework-correction in "Basics in information theory", Institute for Data Processing, Technische Universität München, Munich, Germany

As my background is in control and robotics with special focus in human-robot interaction, I can offer basic as well as advanced courses covering these research areas.

Other Activities

Program co-chair/ co-organizer for conferences/workshops

- *Finance Chair*, HRI 2018
- *Finance Chair*, HRI 2017
- *Organizing Committee*, Joint Workshop on New Technologies for Computer/Assisted Surgery (CRAS), 2015
- *Organizer* of IEEE/RSJ International Conference on Intelligent Robots and Systems Workshop "Cognitive Mobility Assistance Robots: Scientific Advances and Perspectives", 2015
- *Organizing Committee and Publicity Chair*, Eurohaptics 2015
- *Workshop Chair*, Haptic Symposium 2015
- *Industry Forum Co-chair*, ICRA 2015
- *Organizer* of DGR Days 2013 of the German Robotics Society, 2013
- *Organizer* of the IROS 2013 Workshop "Model-based Simulation and Optimization for Physical Assistive Devices", 2013
- *Travel Support Chair*, ICRA 2013
- *Exhibition Chair*, Ro-Man 2013
- *Organizer* of the Worldhaptics 2013 Workshop "Haptic Collaboration in Shared Control Tasks", 2013
- *Workshop Chair*, Worldhaptics 2013
- *Workshop Chair*, HRI 2012
- *Organizer* of the IROS 2011 Special Symposium on "Telerobotics", 2011
- *Organizer* of the Worldhaptics 2011 Workshop "Human-X Haptic Collaboration", 2011
- *Organizer* of the Worldhaptics 2011 Tutorial "Control Issues in Haptic Teleoperation", 2011
- *Workshop Chair*, Worldhaptics 2011
- *Organizer*, "Telerobotics Summerschool 2010" held in Munich, Germany in collaboration with the collaborative research centre SFB453 and the RAS Technical committee on Telerobotics, 2010
- *Organizer* of Special IROS 2010 session: "Advanced teleoperation control architectures", 2010
- *Organizer* of Special RO-MAN 2010 session: "Advanced haptic interaction systems", 2010
- *Organizer* of the IROS Workshop: "Haptic Human-Robot Interaction", 2009
- *Organizer* of the ICRA Workshop: "New Vistas and Challenges in Telerobotics", 2008
- *Program Committee*: Haptic Symposium 2016, ICRA 2015, Worldhaptics 2015, Haptic Symposium 2014, IROS 2013, ICRA 2013, Worldhaptics 2013, IROS 2012, HFR 2012, ICRA 2012, Haptic Symposium 2012, Worldhaptics 2011, RO-MAN 2011, AIM 2011, ICRA 2011, IROS 2011, KI 2010, HAVE 2010, ICABB-2010, RO-MAN 2010, HAVE 2009, RSS 2009, 3rd International Workshop on Human-Centered Robotic Systems 2009, IROS 2008, Eurohaptics 2008

Editorships

- *Associate Editor*, Robotics and Autonomous Systems, March 2017 - dato
- *Associate Editor*, IEEE Transactions on Human-Machine Systems, November 2014 - dato
- *Associate Editor*, IEEE Transactions on Haptics, December 2014 - December 2016
- *Guest Editor*, "Special Issue on Autonomous Physical Human-Robot Interaction", Sami Haddadin, Paolo Robuffo-Giordano, Angelika Peer (Eds.), International Journal of Robotics Research, Nov 2012
- *Guest Editor*, "Special Issue on Haptic Human-Robot Interaction", Amir Karniel, Angelika Peer, Opher Donchin, Ferdinando A. Mussa-Ivaldi, Gerald E. Loeb (Eds.), Transaction on Haptics, Jul-Sep 2012
- *Editor*, "Immersive Multimodal Interactive Presence", Angelika Peer, Christos Giachritsis (Eds.), Springer, 2012
- *Guest Editor*, Special issue "Design and control methodologies in telerobotics", Cristian Secchi, Nikhil Chopra, Angelika Peer, Mechatronics, Oct 2010
- *Editor*, "The sense of Touch and Its Rendering", Antonio Bicchi, Martin Buss, Marc O. Ernst, Angelika Peer (Eds.), Springer, 2008
- *Guest Editor*, Special issue "New Vistas and Challenges in Telerobotics", Nikhil Chopra, Angelika Peer, Claudio Melchiorri, Robotics Automation Magazine, Dec 2008

Committee membership

- *Co-chair* of RAS Education Committee, 2016 -
- Vice Women Advocacy Officer of the Faculty Electrical Engineering and Information Technology of the Technische Universität München, Munich, Germany, February 2010 - August 2014
- *Co-chair* of the Technical Committee on Telerobotics of the IEEE Robotics and Automation Society (http://telerob.org/) 2007 - 2010, Chair: 2010 - 2012
- *Secretary*, Executive Committee of the Eurohaptics Society, 2010 -
- *Member*, Executive Committee of the Eurohaptics Society, 2008 -
- Leader of the working group AK1 in the Collaborative Research Centre (Sonderforschungsbereich) SFB453 "High-Fidelity Telepresence and Teleaction", 2005 - 2010

Journal and book reviewer

IEEE Transactions on Robotics
IEEE Robotics and Automation Magazine
IEEE Transaction on Instrumentation and Measurement
IEEE Transactions on Systems, Man, and Cybernetics
IEEE Transactions on Human-Machine Systems
IEEE/ASME Transactions on Mechatronics
Robotics and Autonomous Systems
Transactions on Affective Computing
Transactions on Industrial Electronics
Industrial Electronics Magazine
International Journal of Humanoid Robotics
Journal of Intelligent and Robotic Systems
Journal of NeuroEngineering and Rehabilitation
Mechatronics
Presence
Robotica
The International Journal of Robotics Research
Transactions on Biomedical Engineering Manuscript
Transactions on Haptics
Brain Research Bulletin
ACM Transactions on Applied Perception
PLoS ONE Haptics-e

Reviewer

EPSRC
SIR, Italian Ministry for Education
ERC Consolidator Grants of European Commission
Strategic Basic Research programme of the Research Foundation Flanders
Killiam Research Fellowships, Canada Council for the Arts
DAAD

Memberships in professional organizations

IEEE member
Robotics and automation society (IEEE-RAS) member
Eurohaptics Society member
IEEE Technical Committee on "Haptics" member
IEEE Technical Committee on "Telerobotics" member
EUCogII member

Publications

Articles in refereed journals

[1] M. Kühne, J. Potzy, R. Garcia-Rochin, P. van der Smagt, and A. Peer, "Design and Evaluation of a Haptic Interface with Octopod Kinematics," *IEEE/ASME Transactions on Mechatronics*, 2017.

[2] M. Geravand, P. Z. Korondi, C. Werner, K. Hauer, and A. Peer, "Human sit-to-stand transfer modeling towards intuitive and biologically-inspired robot assistance," *Autonomous Robots*, vol. 41, no. 3, pp. 575–592, 2017.

[3] M. Abu-Alqumsan, F. Ebert, and A. Peer, "Goal-recognition-based Adaptive Brain-Computer Interface for Navigating in Immersive Robotic Systems," *Journal of Neural Engineering*, 2017.

[4] C. Werner, P. Ullrich, M. Geravand, A. Peer, J. Bauer, and K. Hauer, "A Systematic Review of Study Results Reported for the Evaluation of Robotic Rollators from the Perspective of Users," *Disability and Rehabilitation: Assistive Technology*, 2016.

[5] E. Tidoni, M. Abu-Alqumsan, D. Leonardis, C. Kapeller, G. Fusco, C. Guger, C. Hintermller, A. Peer, A. Frisoli, F. Tecchia, M. Bergamasco, and S. Aglioti, "Local and remote cooperation with virtual and robotic agents: a p300 bci study in healthy and people living with spinal cord injury," *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, 2016.

[6] M. Geravand, C. Werner, K. Hauer, and A. Peer, "An integrated decision making approach for adaptive shared control of mobility assistance robots," *International Journal of Social Robotics*, vol. 8, no. 5, pp. 631–648, 2016.

[7] J. Corredor, J. Sofrony, and A. Peer, "Decisioin-making Model for Adaptive Impedance Control of Teleoperation Systems," *IEEE Transactions on Haptics*, vol. 10, no. 1, pp. 5–16, 2016.

[8] C. Werner, P. Ullrich, M. Geravand, A. Peer, and K. Hauer, "Evaluation Studies of Robotic Rollators by the User Perspective: A Systematic Review," *Gerontology*, vol. 62, no. 6, pp. 644–653, 2016.

[9] M. Abu-Alqumsan and A. Peer, "Advancing the Detection of Steady-state Visual Evoked Potentials in Brain-Computer Interfaces," *Journal of Neural Engineering*, vol. 13, no. 3, 2016.

[10] K. Friedl, A. Voelker, A. Peer, and C. Eliasmith, "Human-Inspired Neurorobotic System for Classifying Surface Textures by Touch," *IEEE Robotics and Automation Letters*, 2016.

[11] R. Jenke, A. Peer, and M. Buss, "Feature extraction and selection for emotion recognition from EEG," *Transactions on Affective Computing*, 2014.

[12] S. Klare and A. Peer, "The Formable Object: A 24-Degree-of-Freedom Shape Rendering Interface," *Transactions on Mechatronics*, 2014.

[13] N. Stefanov, C. Passenberg, A. Peer, and M. Buss, "Design and Evaluation of a Haptic Computer-Assistant for Telemanipulation Tasks," *IEEE Transactions on Systems, Man, and Cybernetics*, vol. 43, no. 4, pp. 385–397, 2013.

[14] C. Passenberg and A. Peer, "Exploring the Design Space of Haptic Assistants: the Assistance Policy Module," *IEEE Transactions on Haptics*, vol. 6, no. 4, pp. 440–452, 2013.

[15] R. Klatzky, D. Pawluk, and A. Peer, "Haptic perception of material properties and implications for applications," *Journal of IEEE*, vol. 99, pp. 1–12, 2013.

[16] A. Steed, W. Steptoe, W. Oyekoya, F. Pece, T. Weyrich, J. Kautz, D. Friedman, A. Peer, M. Solazzi, F. Tecchia, M. Bergamasco, and M. Slater, "Beaming: An Asymmetric Telepresence System," *IEEE Computer Graphics and Applications*, vol. 32, no. 6, pp. 10–17, 2012.

[17] R. Groten, D. Feth, R. Klatzky, and A. Peer, "The Role of Haptic Feedback for the Integration of Intentions in Shared Task Execution," *IEEE Transactions on Haptics*, pp. 94–105, 2012.

[18] Z. Wang, E. Giannopoulos, M. Slater, A. Peer, and M. Buss, "Handshake: Realistic Human-Robot Interaction in Haptic Enhanced Virtual Reality," *Presence*, vol. 20, no. 4, pp. 371–392, 2011.

[19] D. Feth, R. Groten, A. Peer, and M. Buss, "Haptic HumanRobot Collaboration: Comparison of Robot Partner Implementations in Terms of Human-Likeness and Task Performance," *Presence*, vol. 20, no. 2, pp. 173–189, 2011.

[20] E. Giannopoulos, Z. Wang, A. Peer, M. Buss, and M. Slater, "Comparison of People's Responses to Real and Virtual Handshakes within a Virtual Environment," *Brain Research Bulletin*, vol. 85, no. 5, pp. 276–282, 2011.

[21] M. Strolz, R. Groten, A. Peer, and M. Buss, "Development and Evaluation of a Device for the Haptic Rendering of Rotatory Car Doors," *Transactions on Industrial Electronics*, vol. 58, no. 8, pp. 3133–3140, 2011.

[22] A. Reichenbach, J.-P. Bresciani, A. Peer, H. H. Bülthoff, and A. Thielscher, "Contributions of the PPC to Online Control of Visually Guided Reaching Movements assessed with fMRI-guided TMS," *Cerebral Cortex*, vol. 11, pp. 1–11, 2010.

[23] A. Peer, H. Pongrac, and M. Buss, "Influence of varied human movement control on task performance and feeling of telepresence," *Presence*, vol. 19, no. 5, pp. 463–481, 2010.

[24] C. Passenberg, A. Peer, and M. Buss, "A Survey of Environment-, Operator-, and Task-adapted Controllers for Teleoperation Systems," *Mechatronics, Special Issue on Design and Control Methodologies in Telerobotics*, vol. 20, no. 7, pp. 787–801, 2010.

[25] M. Buss, A. Peer, T. Schauß, N. Stefanov, U. Unterhinninghofen, S. Behrendt, J. Leupold, M. Durkovic, and M. Sarkis, "Development of a Multi-modal Multi-user Telepresence and Teleaction System," *The International Journal of Robotics Research*, vol. 29, no. 10, pp. 1298–1316, 2009.

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