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## Technical Session for Monday, May 20

<b>MoBT</b>	17W_MFHall2
<b>Technical Session I - Industrial Robotics (Regular Session)</b>	
Chair: Rehm, Matthias	Aalborg University
Co-Chair: Jang, Young Jae	Korea Advanced Institute of Science and Technology
14:00-14:15	MoBT.1
<i>Analysis of Facial Features for Trust Evaluation in Industrial Human-Robot Collaboration</i> , pp. 1-6.	
Campagna, Giulio	Aalborg University
Chrysostomou, Dimitrios	Aalborg University
Rehm, Matthias	Aalborg University
14:15-14:30	MoBT.2
<i>Adaptive Vibration Reduction Control Strategy for 3-DOF Parallel Energy-Efficient Stabilization Robotic Systems</i> , pp. 7-12.	
Yang, Shaokun	Beijing Institute of Technology
Wang, Junzheng	Beijing Institute of Technology
Shen, Wei	Beijing Institute of Technology
Liu, Dongchen	Beijing Institute of Technology
Lin, Qianye	Beijing Institute of Technology
14:30-14:45	MoBT.3
<i>High-Performance Tactile Sensor-Based Aligning Error State Estimation for FPC Pegging*</i> .	
Ling, Zhengrong	The Hong Kong University of Science and Technology
Yang, Xiong	Hong Kong University of Science and Technology
Guo, Dong	City University of Hong Kong
Shen, Yajing	The Hong Kong University of Science and Technology
14:45-15:00	MoBT.4
<i>Digital Twin Based Test and Verify Framework of Human-Robot Collaboration Solutions</i> , pp. 13-18.	
He, Chengxiao	Tongji University
Fan, Liuqun	Tongji University
Xiao, Yang	Tongji University
Han, ZiQi	Tongji University
Luo, Zicheng	Tongji University
Ge, Chang	Shanghai Robot Industrial Technology Research Institute
Lv, Muyang	School of Mechanical Engineering, Tongji University ; Global Adv
15:00-15:15	MoBT.5
<i>DAIM-HRI: A New Human-Robot Integration Technology for Industries</i> , pp. 19-24.	
Farooq, Muhammad Umar	INNO6
Kang, Geon	Korea Advanced Institute of Science and Technology (KAIST)
Seo, Jiwon	Dongguk University
Bae, Jungchan	KAIST
Kang, Seoyeon	KAIST
Jang, Young Jae	Korea Advanced Institute of Science and Technology
15:15-15:30	MoBT.6
<i>Simulation-Based Motion Priority Optimization for Manufacturing and Tele-Recovery Robot Cooperation</i> , pp. 25-30.	
Itadera, Shunki	National Institute of Advanced Industrial Science and Technology
Domae, Yukiyasu	The National Institute of Advanced Industrial Science and Techno
<b>MoCT</b>	
<b>Technical Session II - HRI and Social Robot (Regular Session)</b>	
Chair: Tzoumas, Georgios	University of Bristol
Co-Chair: Li, Zhuo	The Chinese University of Hong Kong
16:00-16:15	MoCT.1
<i>Humanoid Pianist: Dexterous Piano Playing with Synergy-Based Hand Representation</i> , pp. 31-36.	
Li, Wayne Jason	The Chinese University of Hong Kong, the University of Hong Kong
Li, Zhuo	The Chinese University of Hong Kong
Chen, Fei	The Chinese University of Hong Kong

16:15-16:30	MoCT.2
<i>Socially Assistive Robot As Laboratory Safety Assistant for Science Students</i> , pp. 37-42.	
Hasnine, Mohammad Nehal	Hosei University
Indurkha, Bipin	Jagiellonian University
Ahmed, Mahmoud	South Valley University
16:30-16:45	MoCT.3
<i>Use Case Design for Swarms of Firefighting UAVs Via Mutual Shaping</i> , pp. 43-48.	
Tzoumas, Georgios	University of Bristol
Salinas, Lucio R.	University of Bristol
McConville, Alexander	University of Bristol
Richardson, Thomas	University of Bristol
Hauert, Sabine	University of Bristol
16:45-17:00	MoCT.4
<i>Investigating Social Robots in Medical Offices - a Field Study</i> , pp. 49-54.	
Donnermann, Melissa	Julius-Maximilians University Wuerzburg
Steinhaeusser, Sophia C.	University of Wuerzburg
Lein, Martina	Julius-Maximilians-Universität of Würzburg
Binder, Uli	Julius-Maximilians-Universität Würzburg
Lugrin, Birgit	University of Wuerzburg
17:00-17:15	MoCT.5
<i>Reiteratively Designing a Robotic Concierge with Different Stakeholders – a Multi-Methods Field Study</i> , pp. 55-60.	
Lein, Martina	Julius-Maximilians-Universität of Würzburg
Donnermann, Melissa	Julius-Maximilians University Wuerzburg
Steinhaeusser, Sophia C.	University of Wuerzburg
Lugrin, Birgit	University of Wuerzburg
17:15-17:30	MoCT.6
<i>University CopyCat Game: Observational Learning with Robot Tutee</i> , pp. 61-66.	
Ashok, Ashita	University of Kaiserslautern-Landau
Tolj, Vlatka	University of Kaiserslautern-Landau
Berns, Karsten	University of Kaiserslautern
17:30-17:45	MoCT.7
<i>Users' Perception and Dynamic Motion Velocity Matching in Human-Robot Approach Scenarios</i> , pp. 67-73.	
Viddal Sandanger, Tonje	University of Oslo
Sivachandran, Annica	University of Oslo
Stenseth Eriksen, Roman	University of Oslo
Kwak, Dongho	University of Oslo
van Otterdijk, Marieke T. H.	University of Oslo
Baselizadeh, Adel	University of Oslo (UiO)
Torresen, Jim	University of Oslo
17:45-18:00	MoCT.8
<i>A Qualitative Observational Video-Based Study on Perceived Privacy in Social Robots' Based on Robots Appearances</i> , pp. 74-79.	
Saplacan, Diana	University of Oslo
van Otterdijk, Marieke T. H.	University of Oslo
Torresen, Jim	University of Oslo

## Technical Sessions for Tuesday, May 21

TuBT	17W_MFHall2
<b>Technical Session III - Medical and Healthcare Robotics (Regular Session)</b>	
Chair: Han, Yen-Lin	Seattle University
Co-Chair: Wang, Yupeng	The Chinese University of Hong Kong
14:30-14:45	TuBT.1
<i>Spider Legs Inspired Soft Robotic Extensor for Hand Rehabilitation</i> , pp. 80-85.	
Cooperrider Young, Jhet	Seattle University
Olson, Eric	Seattle University
Do, Tony	Seattle University
Shuman, Mariana	University of Washington
Ohta, Davin	Seattle University
Han, Yen-Lin	Seattle University
14:45-15:00	TuBT.2
<i>Design, Analysis, and Experiment of the Drug Delivery Millirobot with In-Situ Adhesive Hydrogel Formation*</i> .	
Zhao, Haoxiang	The Hong Kong University of Science and Technology
Shen, Yajing	The Hong Kong University of Science and Technology
15:00-15:15	TuBT.3
<i>Navigational Augmented Reality for Robotic Drilling</i> , pp. 86-91.	
Wang, Yupeng	The Chinese University of Hong Kong
Ma, Yan	The Chinese University of Hong Kong
Ren, Hongliang	Chinese Univ Hong Kong (CUHK) & National Univ Singapore(NUS)
15:15-15:30	TuBT.4
<i>Effects of a Memory-Engaging Secondary Task in a Virtual Setting for Stimulating the Embodiment of an Artificial Upper Limb</i> , pp. 92-97.	
Lucaroni, Andrea	Istituto Italiano Di Tecnologia
Bottino, Andrea	Politecnico Di Torino
Lamberti, Fabrizio	Politecnico Di Torino
Mariani, Giulia	Istituto Italiano Di Tecnologia
Marinelli, Andrea	University of Genova, Italian Institute of Technologies
Boccardo, Nicolò	IIT - Istituto Italiano Di Tecnologia
Gruppioni, Emanuele	INAIL Prosthesis Center
De Michieli, Lorenzo	Istituto Italiano Di Tecnologia
Laffranchi, Matteo	Istituto Italiano Di Tecnologia
Barresi, Giacinto	Istituto Italiano Di Tecnologia
15:30-15:45	TuBT.5
<i>Design and Validation of a Multimodal Dataset of Robot-Assisted Suturing Gestures Based on Kinematic and Force Information</i> , pp. 98-103.	
Iacono, Cristina	Università Degli Studi Di Napoli Federico II
Caianiello, Marco	University of Naples Federico II
Bartirromo, Serena	Università Degli Studi Di Napoli Federico II
Smaldone, Aldo	Università Degli Studi Di Napoli Federico II
Ficuciello, Fanny	Università Di Napoli Federico II
15:45-16:00	TuBT.6
<i>Optimizing Safety and Efficiency in the Suturing Task: A Comparison of Model Predictive Control and Control Barrier Function Framework</i> , pp. 104-109.	
Caianiello, Marco	University of Naples Federico II
Ricci, Micol	Università Degli Studi Di Napoli Federico II
Smaldone, Aldo	Università Degli Studi Di Napoli Federico II
Hussain, Sajjad	University of Naples Federico II
Iacono, Cristina	Università Degli Studi Di Napoli Federico II
Ficuciello, Fanny	Università Di Napoli Federico II

TuCT		17W_MFHall2
<b>Technical Session IV - AI and Machine Learning (Regular Session)</b>		
Chair: Cao, Wujing	Shenzhen Institute of Advanced Technology	
Co-Chair: Chen, Fei	The Chinese University of Hong Kong	
16:30-16:45	TuCT.1	
<i>Learning and Simulation of Spatiotemporally Multi-Scale Pedestrian Flow Model</i> , pp. 110-115.		
Sakurai, Akihiro	University of Tokyo	
Yamamoto, Ko	University of Tokyo	
16:45-17:00	TuCT.2	
<i>Lateral Walking Gait Phase Detection with Data Optimization for a Hip Exoskeleton in Resistance Exercise</i> , pp. 116-121.		
Cao, Wujing	Shenzhen Institute of Advanced Technology	
Zhu, Xinbo	Nanjing University of Aeronautics and Astronautics	
Xu, Rui	Nanjing University of Aeronautics and Astronautics	
Li, Changyu	Jining Zhongke Intelligent Technology Co., Ltd	
Yu, Hongliu	University of Shanghai for Science and Technology	
Zhang, Mingming	Southern University of Science and Technology	
Yu, Haoyong	National University of Singapore	
Worawarit, Kobsiriphat	National Metal and Materials Technology Center, Thailand	
Wu, Xinyu	CAS	
17:00-17:15	TuCT.3	
<i>The Robot's Understanding of Classification Concepts Based on Large Language Model</i> , pp. 122-127.		
Shi, Bao	Dalian University of Technology	
Cai, Haiyang	School of Computer Science and Technology, Dalian University Of	
Gao, Hui	Dalian University of Technology	
Ou, Yongsheng	Dalian University of Technology	
Wang, Degang	Dalian University of Technology	
17:15-17:30	TuCT.4	
<i>Good Looking: How Gaze Patterns Affect Users' Perceptions of an Interactive Social Robot</i> , pp. 128-133.		
Somashekarappa, Vidya	University of Gothenburg	
Howes, Christine	University of Gothenburg	
Sayeed, Asad	University of Gothenburg	
17:30-17:45	TuCT.5	
<i>Navigation of Tendon-Driven Flexible Robotic Endoscope through Deep Reinforcement Learning</i> , pp. 134-139.		
Ng, Chikit	The Chinese University of Hong Kong	
Gao, Huxin	National University of Singapore	
Ren, Tianao	Stanford University	
Lai, Jiewen	The Chinese University of Hong Kong	
Ren, Hongliang	Chinese Univ Hong Kong (CUHK) & National Univ Singapore(NUS)	
17:45-18:00	TuCT.6	
<i>Surface Electromyography Relation Network</i> , pp. 140-145.		
Liu, Yanchen	City University of Hong Kong	
Lai, King Wai Chiu	City University of Hong Kong	
18:00-18:15	TuCT.7	
<i>Understanding, Describing and Mitigating the Flow of Personal Data in ROS 2 Systems to Comply with the GDPR and Beyond</i> , pp. 146-152.		
Zander, Tim	Karlsruhe Institute of Technology	
Wohnig, Jonas	Salzburg Research	
Beyerer, Jürgen	Fraunhofer Gesellschaft	
18:15-18:30	TuCT.8	
<i>Community Robotics: A New Paradigm for Robotic Design and Innovation</i> , pp. 153-160.		
Maule, Ella	University of Bristol, University of the West of England, Bristol	
Philamore, Hemma	University of Bristol	
Studley, Matthew	University of the West of England, Bristol	
Manchester, Helen	University of Bristol	
Goudswaard, Mark	University of Bristol	

## Technical Sessions for Wednesday, May 22

<b>WeAT</b>	17W_MFHall2
<b>Technical Session V - Robot Vision and Sensing</b> (Regular Session)	
Chair: Zhang, Jiashi	Zhejiang University
Co-Chair: Chen, Fei	The Chinese University of Hong Kong
11:00-11:15	WeAT.1
<i>LiDAR-Inertial 3D SLAM with Plane Constraint for Multi-Story Building</i> , pp. 161-166.	
Zhang, Jiashi	Zhejiang University
Su, Yuzhu	Zhejiang University
Zhang, Chengyang	Zhejiang University
Jin, Jianxiang	Zhejiang University
Wu, Jun	Zhejiang University
Xiong, Rong	Zhejiang University
Zhu, Qiuguo	Zhejiang University
11:15-11:30	WeAT.2
<i>An Active Tacking and Projection-Based 3D Reconstruction Method for Moving Objects</i> , pp. 167-172.	
Chen, Mengjuan	Hiroshima University
Shimasaki, Kohei	Hiroshima University
Hu, Shaopeng	Hiroshima University
Gu, Qingyi	Institute of Automation, Chinese Academy of Sciences
Ishii, Idaku	Hiroshima University
11:30-11:45	WeAT.3
<i>A Chameleon-Inspired Flexible Tactile Sensor*</i> .	
Ra, Hoonjoo	Hong Kong University of Science and Technology
Li, Gen	City University of Hong Kong
Shen, Yajing	The Hong Kong University of Science and Technology
11:45-12:00	WeAT.4
<i>Depth Camera-Based Monitoring and Simulation System for Weight Training Assessment</i> , pp. 173-176.	
Qu, Zijia	City University of Hong Kong
Chan, Colin Pak Yu	City University of Hong Kong
Liu, Yanchen	City University of Hong Kong
Xue, Jiaqi	City University of Hong Kong
Lai, King Wai Chiu	City University of Hong Kong
12:00-12:15	WeAT.5
<i>3DHoNR: A 3D Object Recognition Using an Efficient and Fast Low-Dimensional 3D Descriptor for a Real-Time Application</i> , pp. 177-181.	
Joshi, Piyush	IIIT Sri City
Mukherjee, Varun	IIIT Sri City
Garg, Pratham	IIIT Sri City
Kumar, Vinay	IIIT Sri City
<b>WeBT</b>	17W_MFHall2
<b>Technical Session VI - Service and Assistive Robotics</b> (Regular Session)	
Chair: Sievers, Thomas	University of Lübeck
Co-Chair: Sienkiewicz, Barbara	Jagiellonian University
14:00-14:15	WeBT.1
<i>Interacting with a Sentimental Robot - Making Human Emotions Tangible for a Social Robot Via ChatGPT</i> , pp. 182-187.	
Sievers, Thomas	University of Lübeck
Russwinkel, Nele	Universität Zu Lübeck
14:15-14:30	WeBT.2
<i>Dealing with Moral Assistance in Robot-Supported Decision Making for Sustainable Consumption</i> , pp. 188-193.	
Krummheuer, Antonia	Aalborg University
Rehm, Matthias	Aalborg University

14:30-14:45	WeBT.3
<i>A Participatory Design Approach to Using Social Robots for Elderly Care</i> , pp. 194-199.	
Sienkiewicz, Barbara	Jagiellonian University
Radosz-Knawa, Zuzanna	Jagiellonian University Collegium Medicum
Indurkha, Bipin	Jagiellonian University
14:45-15:00	WeBT.4
<i>CelesTE, Theomorphic Device for Cognitive Support of Older Adults</i> , pp. 200-205.	
Trovato, Gabriele	Shibaura Institute of Technology
Du, Yegang	Waseda University
Mitchell, Scean	Waseda University
Pariasca, Franco	Pontificia Universidad Catolica Del Peru
Obe, Rio	Waseda University
Lopez Condori, Rodrigo	Pontificia Universidad Catolica Del Peru
Katagiri, Masao	Waseda University
Gawande, Manishk	Shibaura Institute of Technology
Cosentino, Sarah	Waseda University
Manavi, Mehrbod	Siegen University
Carros, Felix	Siegen University
Wieching, Rainer	Siegen University
15:00-15:15	WeBT.5
<i>An Open-Source Software-Hardware Integration Scheme for Embodied Human Perception in Service Robotics</i> , pp. 206-211.	
Okunevich, Iaroslav	University of Technology of Belfort-Montbéliard
Hilaire, Vincent	UTBM
Galland, Stephane	Université De Technologie De Belfort Montvéliard
Lamotte, Olivier	Université De Technologie De Belfort Montbéliard (UTBM)
Ruichek, Yassine	University of Technology of Belfort-Montbéliard - France
Yan, Zhi	University of Technology of Belfort-Montbéliard (UTBM)
15:15-15:30	WeBT.6
<i>Analyses of Parametric Relation in Ant Colony Approach for Robot Path Planning Problem</i> , pp. 212-217.	
Sharan, Sudeep	Frankfurt University of Applied Sciences
Ngoc Minh, Anh Tong	Frankfurt University of Applied Sciences
Dominguez-Jimenez, Juan José	University of Cadiz
Nauth, Peter	Frankfurt University of Applied Sciences
15:30-15:45	WeBT.7
<i>Multi-Purpose Dual Wire Rope Auto Balancing Climber</i> , pp. 218-221.	
Chan, Colin Pak Yu	City University of Hong Kong
Koh, Keng Huat	Hong Kong Applied Science and Technology Research Institute
Shiu, Kin Hei	Carleton University
So, Chun Ho	City University of Hong Kong
Farhan, Musthafa	City University of Hong Kong
Yeung, Kenny Pui Ching	The Hong Kong and China Gas Company Limited
Lau, Michelle Pui Yee	The Hong Kong and China Gas Company Limited
Cheung, Pak Kin	The Hong Kong and China Gas Company Limited
Lai, King Wai Chiu	City University of Hong Kong
15:45-16:00	WeBT.8
<i>Anisotropic Friction Skin for Holonomic Snake Robot Mobility</i> , pp. 222-227.	
Chitikena, Hareesh	University of Agder
Mohammadi, Alireza	University of Michigan, Dearborn
Sanfilippo, Filippo	University of Agder
Poursina, Mohammad	Associate Professor/University of Agder

<b>WeCT</b>	17W_MFHall2
<b>Technical Session VII - Autonomous Vehicles</b> (Regular Session)	
Chair: McConville, Alexander	University of Bristol
Co-Chair: Chu, Kai-Fung	University of Cambridge



16:15-16:30	WeCT.1
<i>Adoption of UAV Swarm Technology: Survey and Opinions of Firefighters</i> , pp. 228-234.	
McConville, Alexander	University of Bristol
Tzoumas, Georgios	University of Bristol
Salinas, Lucio R.	University of Bristol
Munera, Marcela	University of West England
Hauert, Sabine	University of Bristol
16:30-16:45	WeCT.2
<i>Adaptive Resilient Control for Autonomous Vehicles Steering System against False Data Injection Attacks</i> , pp. 235-240.	
Li, Zhenyang	Beijing Institute of Technology, School of Mechanical Engi
Li, Guoqiang	Beijing Institute of Technology
Lu, Yu	Beijing Institute of Technology, School of Mechanical Engi
Wang, Zhenpo	Beijing Institute of Technology
16:45-17:00	WeCT.3
<i>Navigating Mixed Traffic: Current State and Future Challenges in Integrating Autonomous and Human-Driven Vehicles</i> , pp. 241-246.	
Chu, Kai-Fung	University of Cambridge
Fan, Chenchen	The University of Hong Kong
Iida, Fumiya	University of Cambridge
17:00-17:15	WeCT.4
<i>Generalized Visual Path Following on Jetbot Using Normalization with Reinforcement Learning</i> , pp. 247-252.	
Nigam, Aarav	Indian Institute of Information Technology, Sri-City
Sanodiya, Rakesh Kumar	IIIT Sri City
Joshi, Piyush	IIIT Sri City
Subhangi, Subhangi	Indian Institute of Information Technology, Sri City
17:15-17:30	WeCT.5
<i>Task Constraint-Guided Inverse Reinforcement Learning (TC-IRL) in Human-Robot Collaborative Assembly</i> , pp. 253-259.	
Chen, Yi	Clemson University
Wang, Weitian	Montclair State University
Jia, Yunyi	Clemson University
17:30-17:45	WeCT.6
<i>Comparison and Analysis of Human Comfort in Virtual Reality (VR)-Based and Reality-Based Human-Robot Collaboration Tasks</i> , pp. 260-266.	
Yan, Yuchen	Clemson University
Zhai, Kexuan	Clemson University
Jia, Yunyi	Clemson University
17:45-18:00	WeCT.7
<i>Simulation Analysis and Model Modification of the LWR Traffic Flow Theory</i> , pp. 267-272.	
Chen, Yang	Northeastern University
Fu, Jun	Northeastern University
Anton, Selivanov	The University of Sheffield
18:00-18:15	WeCT.8
<i>Programming Robot Animation through Human Body Movement</i> , pp. 273-279.	
Frijns, Helena Anna	TU Wien
Stoeva, Darja	TU Wien
Schürer, Oliver	TU Wien
Gelautz, Margrit	TU Wien

