● Advance Program
(IEEE ISM/IRC/BigMM 2023)

All times are in Pacific Standard Time (PST)

Monday, December 11			
Time (PST)	**Crystal I**	**Crystal II**	**Slate**
07:30 - 08:00	**Check In (in person only) & Breakfast (@ foyer)**		
08:00 - 08:30	**Opening Ceremony** **(Chairs: Fabio Persia, Daniela D'Auria, Giovanni Pilato, Phillip Sheu)**		
08:30 - 09:30	**Keynote 1: VS Subrahmanian** **My** (Chair: Fabio Persia)		
09:30 - 09:45	**Coffee Break**		
09:45 - 11:30	**Session: (ISM-1)** (4 regular papers) (Chair: Mustafa Sert)	**Session: (IRC-1)** (2 regular papers, 3 short papers, 1 position paper) (Chair: *Hiroshi Kage*)	**Session: (IRC-2)** (3 regular papers, 3 short papers) (Chair: Eric T. Matson)
11:30 - 12:45	**Session: (ISM-2)** (2 regular papers, 2 short papers) (Chair: Haoliang Wang)	**Session: (IRC-3)** (1 regular paper, 2 short papers, 2 position papers) (Chair: Shrutheesh Raman Iyer)	**Session: (BigMM-1)** (2 regular papers, 1 short paper) (Chair: Fabio Persia)
12:45 - 14:30	**Lunch (@Cafe): Pick up the lunch order form at the registration desk, complete and return it to the desk by 10 AM**		
14:30 - 15:30	**Keynote 2: Julienne Greer** (Chair: Eric Matson)		

15:30 - 17:15	**Session: (ISM-3)** (4 regular papers) (Chair: Mustafa Sert)	**Session: (IRC-4)** (2 regular papers, 3 short papers, 1 position paper) (Chair: Luca Muratore)	**Session: (BigMM-2)** (3 regular papers) (Chair: Florian Schimanke)
17:15 - 17:30	**Coffee Break**		
17:30 – 19:00	**Session: (ISM-4)** (1 regular paper, 2 short papers, 1 position paper) (Chair: Gerald Friedland)	**Session: (IRC-5)** (3 regular papers, 1 short paper, 1 position paper) (Chair: *Christopher Allred*)	
19:00 - 21:00	**Reception**		

Tuesday, December 12			
Time\ Place	**Crystal I**	**Crystal II**	**Slate**
08:00 - 08:30	**Check In (in person only) & Breakfast (@ foyer)**		
08:30 - 09:30	**Keynote 3: Max Mühlhäuser** (Chair: Mustafa Sert)		
09:30 – 09:45	**Coffee Break**		
09:45 - 12:00	**Session: (ISM-5)** (4 regular papers, 1 short paper) (Chair: Klara Nahrstedt)	**Session: (IRC-6)** (5 regular papers) (Chair: *Ryan Rubel*)	**Session: (ISM-6)** (2 regular papers, 3 short papers, 1 position paper) (Chair: Ling Guan)
12:00 – 13:40	**Lunch (@Cafe): Pick up the lunch order form at the registration desk, complete and return it to the desk by 10 AM**		

13:40 - 14:15	**Session: (ISM-7)** (1 regular papers, 3 short papers, 1 position paper) (Chair: Paul Libbrecht)	**Session: (IRC-7)** (2 regular papers, 2 short papers) (Chair: *Giovanni Pilato*)	
14:15 - 15:00			**Session: (BigMM-3)** (2 regular papers) (Chair: Luca Muratore)
15:00 - 16:00	**Keynote 4: Gerald Friedland** (Chair: Robert Mertens)		
16:00 - 16:15	**Coffee Break**		
16:15 - 17:55	**Session: (ISM-8)** (1 regular paper, 3 short papers, 2 position papers) (Chair: Florian Schimanke)	**Session: (IRC-8)** (4 regular papers, 2 short papers) (Chair: *Prem Raj*)	**Session: (IRC-9)** (2 regular papers, 4 short papers) (Chair: Eric Matson)
17:55 - 18:30			
18:30 - 19:00	**Estimated travel time by car to UC Irvine UNIVERSITY CLUB: 25 - 30 minutes** **UC Irvine UNIVERSITY CLUB** **801 E Peltason Dr, Irvine, CA 92617** **949-334-2103** **Transportation: a charter bus. The bus will depart from Hills Hotel at 6:35 PM to UCI University Club. After the banquet, the bus will depart from UCI University Club at 9:30 PM to the Hills Hotel.**		
19:00 – 21:30	**Banquet (@ "UCI University Club")**		

Wednesday, December 13				
Time\ Place		**Platinum**	**Slate**	**Emerald Lounge**
08:00 - 08:30		**Check In (in person only) & Breakfast (@ foyer)**		
08:30 - 09:30		**Keynote 5: Jacob Rosen** (Chair: Daniela D'Auria)		
09:30 - 10:45		**Session: (ISM-10)** (4 short papers, 1 position paper) (Chair: Fabio Persia)	**Session: (IRC-10)** (3 regular papers) (Chair: *David Hermann*)	**Session: (BigMM-4)** (3 regular papers) (Chair: Robert Mertens)
10:45 – 11:05		**Coffee Break**		
11:05 - 12:25		**Session: (ISM-11)** (1 regular paper, 3 short papers, 1 position paper) (Chair: Haoliang Wang)	**Session: (IRC-11)** (3 regular papers, 2 short papers) (Chair: *Nazish Tahir*)	**6th International Workshop on New Frontiers in Computational Robotics + Semantic Multimedia Computing (Fall Edition)** (5 workshop papers)
12:25 - 12:40				
12:50 – 14:30		**Lunch (@Cafe): Pick up the lunch order form at the registration desk, complete and return it to the desk by 10 AM**		

<table>
<tr><td>14:30 - 15:30</td><td></td><td colspan="3"><u>Keynote 6</u>: Alfredo Cuzzocrea

(Chair: Giovanni Pilato)</td></tr>
<tr><td>15:30 - 15:45</td><td></td><td colspan="3">Award Ceremony
(Co-Chairs: Fabio Persia, Eric Matson)</td></tr>
<tr><td>15:45 - 16:00</td><td></td><td colspan="3">Coffee Break</td></tr>
<tr><td>16:00 - 16:35</td><td rowspan="2"></td><td rowspan="2">Multimedia Technologies for E-Learning (MTEL) Workshop
(5 workshop papers)</td><td>First Workshop on Computational Human-Robot Interaction (CHRI 2023)
(2 workshop papers)</td><td rowspan="2">9th Workshop on Collaboration of Humans, Agents, Robots, Machines and Sensors (CHARMS 2023)
(3 workshop papers)</td></tr>
<tr><td>16:35 - 17:20</td><td><u>Session</u>: (ISM-9)
(2 short papers)
(Chair: Rakesh Rao Ramachandra Rao)</td></tr>
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Detailed Sessions (IEEE ISM 2023)

Session	Title
Session: **ISM-1 - Best Paper Session (I)** **(**Chair: Mustafa Sert**)**	Bitstream organization for parallel entropy coding on neural-based video codecs (Regular Paper) *Amir Said, Hoang Le and Farzad Farhadzade*
	NN-VVC: Versatile Video Coding boosted by self-supervisedly learned image coding for machines (Regular Paper) *Jukka I. Ahonen, Nam Le, Honglei Zhang, Antti Hallapuro, Francesco Cricri, Hamed Rezazadegan Tavakoli, Miska M. Hannuksela and Esa Rahtu*
	SmartCrop: AI-Based Cropping of Soccer Videos (Regular Paper) *Sayed Mohammad Majidi Dorcheh, Mehdi Houshmand Sarkhoosh, Cise Midoglu, Saeed S. Sabet, Tomas Kupka, Michael A. Riegler, Dag Johansen and Pål Halvorsen*
	360TripleView: 360-Degree Video View Management System Driven by Convergence Value of Viewing Preferences (Regular Paper)

	Qian Zhou, Mingyuan Wu, Yinjie Zhang, Michael Zink, Ramesh Sitaraman and Klara Nahrstedt
Session: **ISM-2 - Video Streaming** **(**Chair: Haoliang Wang**)**	SAVG360: Saliency-aware Viewport-guidance-enabled 360-degree Video Streaming System (Regular Paper) *Yinjie Zhang, Mingyuan Wu, Beitong Tian, Jiaxi Li, Bo Chen, Qian Zhou and Klara Nahrstedt*
	Temporal Layer Injection for Fast Bitrate Ladder Creation in Video Live Streaming (Regular Paper) *Hannes Mareen, Casper Haems, Tim Wauters, Filip De Turck, Peter Lambert and Glenn Van Wallendael*
	Real-time Delivery of Visual Volumetric Video-based Coding Data (Short Paper) *Lauri Ilola, Sudarshan Bisht, Ugurcan Budak, Peter Fasogbon, Jaakko Keränen and Lukasz Kondrad*
	CALC-VFS: Content-adaptive low-complexity Video Frame Synthesis (Short Paper) *Nicola Giuliani, Hongjie You, A. Burakhan Koyuncu, Atanas Boev, Elena Alshina and Eckehard Steinbach*
Session: **ISM-3 - Best Paper Session (II)** **(**Chair: Mustafa Sert**)**	Multi-Scale Image Graph Representation: A Novel GNN Approach for Image Classification through Scale Importance Estimation (Regular Paper) *João Pedro Batisteli, Silvio Guimaraes and Zenilton K. G. Patrocínio Jr.*
	EHT-SR: An Entropy-Based Hybrid Approach for Faster Super-Resolution (Regular Paper) *Abhilash Dharmavarapu, Jiashen Cao, Stefano Petrangeli and Hyesoon Kim*
	Active Learning for Multi-Class Vehicle Categorization and Traffic Analysis in complex environments (Regular Paper) *Gabriel Lugo, Joey Quinlan, Lingrui Zhou, Md Nahid Sadik and Irene Cheng*
	Active Context Modeling for Efficient Image and Burst Compression (Regular Paper) *Yang Li, Gang Wu, Stefano Petrangeli, Viswanathan Swaminathan, Haoliang Wang and Ryan Rossi*
Session: **ISM-4 - Object Detection** **(**Chair: Gerald Friedland**)**	Angle Range and Identity Similarity Enhanced Gaze and Head Redirection based on Synthetic data (Regular Paper) *Jiawei Qin and Xueting Wang*

	Illuminating the Bias in Pedestrian Detection (Short Paper) *Afnan Althoupety, Li-Yun Wang, Wu-Chi Feng and Banafsheh Rekabdar*
	Validating Quantification Method for Object Visual Appeal to Motorists in Simulated Hazardous Driving Scenes (Short Paper) *Takumi Inagawa, Tomoya Hayashi and Yohei Nakada*
	DeformableFormer for Classifying Endoscopic Ultrasound-Guided Fine-Needle Biopsy in Pancreatic Diseases (Position Paper) *Taiji Kurami, Takuya Ishikawa and Kazuhiro Hotta*
Session: **ISM-5 - Video Analysis** **(**Chair: Klara Nahrstedt**)**	Video as Text: A New Paradigm for Flexible Video Analysis (Regular Paper) *Li-Yun Wang, Wu-Chi Feng and Li-Yun Wang*
	The Effect of Viewing Distances on 4K and 8K HDR Video Quality Perception (Regular Paper) *Dominik Keller, Rakesh Rao Ramachandra Rao, Steve Göring and Alexander Raake*
	Towards evaluation of immersion, visual comfort and exploration behaviour for non-stereoscopic and stereoscopic 360° videos (Regular Paper) *Stephan Fremerey, Raja Faseeh Uz Zaman, Touseef Ashraf, Rakesh Rao Ramachandra Rao, Steve Göring and Alexander Raake*
	Aerial 360-Degree Video Delivery for Immersive First Person View UAV Navigation (Regular Paper) *Simran Singh and Jacob Chakareski*
	Progressive Coding for Neural Field Transmission (Short Paper) *Anustup Choudhury and Guan-Ming Su*
Session: ISM-6 **Image Analysis and Processing** **(**Chair: Ling Guan**)**	A Framework for Multi-plane Image Layer Merging (Regular Paper) *Zachary Lazri, Guan-Ming Su and Peng Yin*
	Mathematics as Interactive Multimedia (Regular Paper) *Joshua Howell, Angela Chan, Glen Hordemann and Francis Quek*
	Self-Supervised Learning of Free-Hand Sketches with Bezier Curve Features (Short Paper) *Taner Gulez and Mustafa Sert*
	Deep Learning-based Point Cloud Geometry Coding with Attention Models (Short Paper) *Mohammadreza Ghafari, André F. R. Guarda, Nuno M. M. Rodrigues and Fernando Pereira*
	Estimation of the Caloric Intake of Food Consumption Using Convolutional Neural Network (Short Paper) *Jie Li and Bahareh Abbasi*

	Deep Layers Beware: Unraveling the Surprising Benefits of JPEG Compression for Image Classification Pre-processing (Position Paper) *Guruprasad Nayak and Gerald Friedland*
Session: ISM-7 **Sound Event Detection** **(**Chair: Paul Libbrecht**)**	Weakly Labeled Sound Event Detection using Attention Mechanism with Teacher-Student Model (Regular Paper) *Yesim Akar and Mustafa Sert*
	The Impact of Parroting Mode on Cross-Lingual Speaker Recognition (Short Paper) *Wen-Hung Liao, Yen-Chun Ou, Po-Han Chen and Yi-Chieh Wu*
	Synthesis of Disparate Audio Species via Recurrent Neural Embedding (Short Paper) *Vania Miriam Ortiz Ramos and Sukhan Lee*
	War & Music: The impact of the Ukrainian War on the Music Listening Behaviour in Eastern Europe (Short Paper) *Fernando Terroso Sáenz, Andres Muñoz and Phillipe Roose*
	Two-Stage Triplet Loss Training with Curriculum Augmentation for Audio-Visual Retrieval (Position Paper) *Donghuo Zeng and Kazushi Ikeda*
Session: **ISM-8 - Image Enhancement and Generation** **(**Chair: Florian Schimanke**)**	3DTextureNet: Neural 3D Texture Style transfer (Regular Paper) *Abhinav Upadhyay, Alpana Dubey and Suma Mani Kuriakose*
	Towards Imperceptible Adversarial Image Generation: Minimizing Perceptual Difference (Short Paper) *Sivaji Retta and Ramarajulu Srinivasan*
	Progressive Image Compression and Syncing (Short Paper) *Junda Wu, Haoliang Wang, Tong Yu, Gang Wu, Stefano Petrangeli, Handong Zhao, Sungchul Kim and Viswanathan Swaminathan*
	Towards Efficient Multi-view Representation Learning (Short Paper) *Kai Liu, Zheng Guo, Lei Gao, Naimul Mefraz Khan and Ling Guan*
	Deep Learning-Based Low-Light Aerial Image Enhancement (Position Paper) *Trong-An Bui*
	Adaptation of Bitstream-based Video Quality Models for Image Quality Assessment (Position Paper) *Rakesh Rao Ramachandra Rao, Steve Göring and Alexander Raake*

Session: **ISM-9 - Papers from High Schoolers** **(**Chair: Rakesh Rao Ramachandra Rao**)**	Bridging Subjectivity and Objectivity in Evaluation of Machine-Generated Jazz Music: A Multimetric Approach (Short Paper) *Conrad Hsu and Ross Greer*
	Spectrogram-Based Deep Learning for Flute Audition Assessment and Intelligent Feedback (Short Paper) *Manu Agarwal and Ross Greer*
Session: **ISM-10 - Event Detection** **(**Chair: Fabio Persia**)**	Heart Rate Detection Using an Event Camera (Short Paper) *Aniket Jagtap, Venkatesh Saripalli Saripalli, Joe Lemley, Waseem Shariff and Alan Smeaton*
	elling for the unsupervised pre-training of a Graph Attention Network block for bottom-up video event recognition (Short Paper) *Dimitrios Daskalakis, Nikolaos Gkalelis and Vasileios Mezaris*
	Interactive Scene Analysis for Teleconferencing (Short Paper) *Mingyuan Wu, Yuhan Lu, Shiv Trivedi, Bo Chen, Qian Zhou, Lingdong Wang, Simran Singh, Michael Zink, Ramesh Sitaraman, Jacob Chakareski and Klara Nahrstedt*
	Efficient Automatic Annotation of Binary Masks for Enhanced Training of Computer Vision Models (Short Paper) *Dylan Seychell, Matthew Kenely, Matthias Bartolo, Carl J. Debono, Matthew Sacco and Mark Bugeja*
	Care3D: An Active 3D Object Detection Dataset of Real Robotic-Care Environments (Position Paper) *Michael G. Adam, Sebastian Eger, Martin Piccolrovazzi, Maged Iskandar, Joern Vogel, Alexander Dietrich, Seongjien Bien, Jon Skerlj, Abdeldjallil Naceri, Eckehard Steinbach, Alin Albu-Schaeffer, Sami Haddadin and Wolfram Burgard*
Session: **ISM-11 - Applications** **(**Chair: Haoliang Wang**)**	Maintaining Text Legibility Regarding Font Size Based on User Distance in Mobile Devices: Application Development and User Evaluation (Regular Paper) *Andreas Mallas, Hara Papadatou and Michalis Xenos*
	Analysis of Hand Movement and Head Orientation in Hierarchical Menu Selection in Immersive AR (Short Paper) *Majid Pourmemar and Charalambos Poullis*
	Exploring terrestrial point clouds with Google Street View for discovery and fine-grained catalog of urban objects (Short Paper) *Gabriel Lugo, Rutvik Chauhan and Irene Cheng*
	Learning Individualized Automatic Content Magnification in Gaze-based Interaction (Short Paper) *Florian Eggenkemper, Lars Kölker, Mike Valente, Constantin A. Rothkopf and Robert Mertens*

	Semantic and Lexical Token Based Vectors Improve Precision of Recommendations for TV Programmes (Position Paper) *Taner Cagali, Hadi Wazni, Saba Nazir, Mehrnoosh Sadrzadeh and Chris Newell*

Detailed Sessions (IEEE IRC 2023)

Session	Title
Session: **IRC-1 - Computer Vision** **(**Chair: *Hiroshi Kage***)**	Language-Based Augmentation to Address Shortcut Learning in Object-Goal Navigation (Regular Paper) *Dennis Hoftijzer, Gertjan Burghouts and Luuk Spreeuwers*
	An Algorithm for Two-Dimensional Pattern Detection by Combining Echo State Network-based Weak Classifiers (Regular Paper) *Hiroshi Kage*
	Robotic Assembly Planning from Video Demonstration (Short Paper) *Abhinav Upadhyay, Priyanshu Barua, Alpana Dubey, Shubhashis Sengupta, Piyush Goenka and Suma Mani Kuriakose*
	Learning Indoors Free-space Segmentation for a Mobile Robot from Positive Instances (Short Paper) *Christos Sevastopoulos, Qiyuan An, Joey Hussain, Stasinos Konstantopoulos, Vangelis Karkaletsis and Fillia Makedon*
	Tactile Sensing with Contextually Guided CNNs: A Semisupervised Approach for Texture Classification (Short Paper) *Olcay Kursun, Beiimbet Sarsekeyev, Mahdi Hasanzadeh and Ahmad Patooghy*
	Multi-label Annotation for Visual Multi-Task Learning Models (Position Paper) *Gaurang Sharma, Alexandre Angleraud and Roel Pieters*
Session: **IRC-2 - Place and Object Localization** **(**Chair: Eric T. Matson**)**	LiDAR-based localization system for kidnapped robots (Regular Paper) *Thibaud Lasguignes, Guillaume Gobin and Olivier Stasse*
	Robotic Odor Source Localization via End-to-End Recurrent Deep Reinforcement Learning (Regular Paper) *Lingxiao Wang and Shuo Pang*
	MoV-SLAM Using Motion Vectors for Real-time Single-CPU Visual SLAM (Regular Paper) *Richard N. C. Turner, Natasha Banerjee and Sean Banerjee*

	Multi-Modal Robotic Platform Development for Odor Source Localization (Short Paper) *Sunzid Hassan, Lingxiao Wang and Khan Raqib Mahmud*
	Improving the Overall Anti-drone System Performance With the Implementation of an Active Malicious Drone Chasing Strategy (Short Paper) *Seungchol Cho, Uk Jang, Youngseo Chang, William Choi, Nicole Hornbrook, Justin Allange, Mia Y. Wang and Eric T. Matson*
	Self-Supervised Drone Detection Using Acoustic Data (Short Paper) *Juann Kim, Mia Y. Wang and Eric T. Matson*
Session: **IRC-3 - Robot Navigation** **(**Chair: **)**	Fillet-Based Batch Informed Trees (FB-BIT*): Rapid Convergence Path Planning for Curvature Constrained Vehicles (Regular Paper) *James Swedeen and Greg Droge*
	An Approach to Cooperative, Wide Area Visual Navigation by Leveraging Blockchain Consensus (Short Paper) *Damian Lyons and Mohamed Rahouti*
	Household navigation and manipulation for everyday object rearrangement tasks (Short Paper) *Shrutheesh Raman Iyer, Anwesan Pal, Jiaming Hu, Akanimoh Adeleye, Aditya Aggarwal and Henrik I. Christensen*
	Real-time implementation of Model Predictive Control for fast trajectory tracking of a quad rotorcraft UAS (Position Paper) *Hengameh Mirhajianmoghadam, Nicholas Grijalva and Luis Rodolfo Garcia Carrillo*
	Stealth Centric A* (SCA*): Bio-Inspired Navigation for Ground Robots (Position Paper) *Ryan Anderson, Taylor Anderson, Carter Bailey, Jeffrey Anderson and Mario Harper*
Session: **IRC-4 - Human-Robot Interaction** **(**Chair: Luca Muratore**)**	Emotion Detection in Social Robotics: Empath-Obscura - An Ensemble Approach with Novel Face Augmentation Using SPIGA (Regular Paper) *Debajyoti Dasgupta, Arijit Mondal and Partha Chakrabarti*
	Fleet2D: A fast and light simulator for Home Robotics (Regular Paper) *Apaar Sadhwani, Hamid Badiozamani, Tushar Agarwal, Saraswathi Marthandam, Amin aAtrash, Jing Zhu, Aarthi Raveendran and William Smart*
	Co-speech Gestures for Human-Robot Collaboration (Short Paper) *Akif Ekrekli, Alexandre Angleraud, Gaurang Sharma and Roel Pieters*

	Towards Natural and Intuitive Human-Robot Collaboration based on Goal-Oriented Human Gaze Intention Recognition (Short Paper) *Taeyhang Lim, Joosun Lee and Wansoo Kim*
	Customizable Home Rehabilitation Robot for Hemiplegic Patient to Improve Finger Independence (Short Paper) *Yuta Furudate, Kaori Chiba, Yuji Ishida and Sadayoshi Mikami*
	Understanding Agreement in Giver and Receiver Intentions on Grasp in Human-Human Handover (Position Paper) *Noah Wiederhold, Dimaggio Paris, Sean Banerjee and Natasha Banerjee*
Session: **IRC-5 - Mobile Robots (I)** **(**Chair:**)**	Optimizing SLAM Evaluation Footprint Through Dynamic Range Coverage Analysis of Datasets (Regular Paper) *Islam Ali and Hong Zhang*
	A Change Detection Method for Misaligned Point Clouds in Mobile Robot System (Regular Paper) *Masaya Fujiwaka, Manabu Nakanoya and Kousuke Nogami*
	Detecting Ballistic Motions in Quadruped Robots: A Boosted Tree Motif Classifier for Understanding Reinforcement Learning (Regular Paper) *Christopher Allred, Jason Pusey and Mario Harper*
	Point Cloud Distance Metrics for Evaluation of Deep Point Networks (Short Paper) *Sukhan Lee and Jaewoong Kim*
	Algorithmic Framework for Analyzing and Simulating Multi-axial Robotic Transformations in Spatial Coordinates: Towards Effective Multi-tracking, Optimization and Control Applications (Position Paper) *Andrew O. Benyeogor, Tobore L. Igbigbi, Mbadiwe Samuel Benyeogor, Abubakar. A. Dahiru, Olusegun I. Lawal, Kolawole I. Agbaogun, Prosper Agumey, Amos Odju and Ekarika B. Uwak*
Session: **IRC-6 - Best Paper Session** **(**Chair: *Ryan Rubel***)**	Towards 6D MCL for LiDARs in 3D TSDF Maps on Embedded Systems with GPUs (Regular Paper) *Marc Eisoldt, Alexander Mock, Mario Porrmann and Thomas Wiemann*
	A Skeleton-based Approach For Rock Crack Detection Towards A Climbing Robot Application (Regular Paper) *Josselin Somerville Roberts, Paul-Emile Giacomelli, Yoni Gozlan and Julia Di*
	Automated Multimodal Data Annotation via Calibration With Indoor Positioning System (Regular Paper) *Ryan Rubel, Drew Dudash, Mohammad Goli, James O'Hara and Karl Wunderlich*

	Input and Editing of Force Profiles of In-Contact Robot Motions via a Touch Graphical User Interface (Regular Paper) *Johannes Hartwig, Pascal Ruppert and Dominik Henrich*
	Generation of Robot Manipulation Plans Using Generative Large Language Models (Regular Paper) *Jan-Philipp Töberg and Philipp Cimiano*
Session: **IRC-7 - Mobile Robots (II)** **(**Chair: Giovanni Pilato**)**	FeatSense - A Feature-based Registration Algorithm with GPU-accelerated TSDF-Mapping Backend for NVIDIA Jetson Boards (Regular Paper) *Julian Gaal, Thomas Wiemann, Alexander Mock and Mario Porrmann*
	Modeling of Temperature-dependent Joint Friction in Industrial Robots Using Neural Networks (Regular Paper) *Minh Trinh, Ritesh Yadav, Ruben Schwiedernoch, Lukas Gründel, Oliver Petrovic and Christian Brecher*
	A Fail-Operational Control Architecture for Autonomous Mobile Robots Based on State Machine Replication (Short Paper) *Manuel Schrick and Jochen Kreutzfeldt*
	Simultaneous Frontier-based Exploration and Topological Mapping (Short Paper) *Davide Brugali and Jose Raul Luizaga Yujra*
Session: **IRC-8 - Object Detection** **(**Chair: Prem Raj**)**	Transformer-based Supervision of Ground Crews During UAV Sling-load Operations (Regular Paper) *Marvin Brenner and Peter Stütz*
	Bin-picking of novel objects through category-agnostic-segmentation: RGB matters (Regular Paper) *Prem Raj, Sachin Bhadang, Gaurav Chaudhary, Laxmidhar Behera and Tushar Sandhan*
	A Framework for Training 3D Object Detection Models on a Limited Amount of Real Data (Regular Paper) *Manabu Nakanoya, Masaya Fujiwaka and Kousuke Nogami*
	Efficient Multi-Object Pose Estimation using Multi-Resolution Deformable Attention and Query Aggregation (Regular Paper) *Arul Selvam, Vladimir Tsaturyan and Sven Behnke*
	Robotic Tomato Detection using YOLOv3 with Pre- & Post-Processing: Evaluation through Gazebo Siulation and Real World Laboratory Testing (Short Paper) *Arielle Wilson, Lisa Milkowski and Altanai Bisht*

	Graph Neural Network Empowered Resource Allocation for Connected Autonomous Mobility (Short Paper) *Eugen Šlapak, Adam Petík, Marcel Vološin, Matúš Dopiriak, Juraj Gazda and Zdenek Becvar*
Session: **IRC-9 - Autonomous Vehicles (I)** **(**Chair:**)**	BumpyPatch: Heightmap-based Outdoor Point Cloud Segmentation to Find Less Bumpy Road (Regular Paper) *Jiwon Park and Hyoseok Hwang*
	Repeat Trial Analysis of an EA for Flight Control Correction and Control Model Extraction in a Flapping-Wing Vehicle (Regular Paper) *John Gallagher, Michael Oppenheimer and Eric Matson*
	Localizability Estimation for Autonomous Driving: A Deep Learning-Based Place Recognition Approach (Short Paper) *Kazuto Matsumoto, Ehsan Javanmardi, Jin Nakazato and Manabu Tsukada*
	Can Ro bots Be Responsible: A Bumper Theory Approach to Robot Moral Conditioning (Short Paper) *Mark Alberta, Dongbin Lee and Omhier Khan*
	Personalized Trajectory Prediction for Driving Behavior Modeling in Ramp-Merging Scenarios (Short Paper) *Siyan Li, Chuheng Wei, Guoyuan Wu, Matthew J. Barth, Amr Abdelraouf, Rohit Gupta and Kyungtae Han*
	Unifying Ontological Framework for All-Terrain Datasets (Short Paper) *Anant Bhamri, Anthony Medellin, David Grabowsky, Dariusz Mikulski, Reza Langari and Swaminathan Gopalswamy*
Session: **IRC-10 - Autonomous Vehicles (II)** **(**Chair: *David Hermann***)**	AutonomROS: A ReconROS-based Autonomonous Driving Unit (Regular Paper) *Christian Lienen, Marco Platzner, Mathis Brede, Alexander Philipp Nowosad, Kevin Koch, Alexander Schnelle, Daniel Karger, Mohness Waizy, Dalisha Logan and Janet Mazur*
	Enhancing Perception in Robot-Guided Vehicle Tests: A Rapid Long-Range Obstacle Detector (Regular Paper) *David Hermann, Chao Wei, Clara Marina Martínez, Gereon Hinz and Alois Knoll*
	Mitigating Emergency Stop Collisions in AGV Fleets in Case of Control Failure (Regular Paper) *Natalia Ogorelysheva, Anna Vasileva, Jannik Stadtler, Moritz Roidl and Falk Howar*
Session: **IRC-11 - Multi-Robot Systems**	Consensus-based Resource Scheduling for Collaborative Multi-Robot Tasks (Regular Paper)

(Chair: *Nazish Tahir***)**	*Nazish Tahir and Ramviyas Parasuraman*
	Utility AI for Dynamic Task Offloading in the Multi-Edge Infrastructure (Regular Paper) *Nazish Tahir and Ramviyas Parasuraman*
	Traffic Management for Swarm Production (Regular Paper) *Oliver Beyer Lauritsen, Jonas Andersen, Anders Clement and Casper Schou*
	Multi-Robot Motion Planning at Intersections using Lattice-Guided dRRT* and Gradient-Free Heuristics (Short Paper) *Victor Parque and Miyashita Tomoyuki*
	RealCaPP: Real-time Capable Plug & Produce Service Architecture for Distributed Robot Control (Short Paper) *Christian Eymüller, Julian Hanke, Alexander Poeppel, Constantin Wanninger and Wolfgang Reif*

Detailed Sessions (IEEE BigMM 2023)

	Title
Session:Session BigMM-1 - Applications **(**Chair: Fabio Persia**)**	Enhanced Method for Computing Optimal Dribbling Routes Using Tracking Data in Basketball (Regular Paper) *Hibiki Sakabe and Yohei Nakada*
	Improvement of Retrieval Process for Similar Outfit Portraits in Prototype Fashion Chatbot (Regular Paper) *Yusuke Sawada and Yohei Nakada*
	Boosting Power Grid Efficiency: Meta-RL Approaches (Regular Paper) *Cherindranath Reddy, Satyesh Das, Surya Narayana Murthy Babu Batchu and Gurram Venkata Yaswanth*
Session: BigMM-2 - Graph Analysis **(**Chair: Florian Schimanke**)**	Formation Analysis Method for Team Sports Using Deep Graph Convolutional Neural Network with Geometric Formation Features as Input (Regular Paper) *Shunsuke Takagi and Yohei Nakada*
	Machine Learning on Dynamic Graphs: A Survey on Applications(Regular Paper) *Sanaz Hasanzadeh Fard*
	Temporal Link Prediction Using Graph Embedding Dynamics (Regular Paper) *Sanaz Hasanzadeh Fard, Hamid Nasiri and Mohammad Ghassemi*
Session: BigMM-3 - BigData and AI **(**Chair: Luca Muratore**)**	SSG-Net: A novel Text-to-Procedure AI artwork generator enables illustrating of the step-by-step painting process (Regular Paper) *Yi Zhao and Yanchun Li*
	AMuSE: Adaptive Multimodal Analysis for Speaker Emotion Recognition in Group Conversations. (Short Paper) *Naresh Kumar Devulapally, Sidharth Anand, Sreyasee Das Bhattacharjee, Junsong Yuan and Yu-Ping Chang*
Session : BigMM-4 - Deep Learning **(**Chair: Robert Mertens**)**	Temporality-guided Masked Image Consistency for Domain Adaptive Video Segmentation (Regular Paper) *Zunhao Zhang, Zhenhao Chen, Yifan Shen, Dayan Guan and Alex Kot*
	Cross-Attention Vision Transformer for Few-Shot Semantic Segmentation(Regular Paper) *Matheus Eduardo Santos, Silvio Guimaraes and Zenilton K. G. Patrocínio Jr.*
	Action Recognition in Videos using 3D ConvNets with Multi-head Attention (Regular Paper) *Yagmur Sahin and Mustafa Sert*

IEEE ISM/IRC/BigMM 2023 - Workshops

Session	Title
Multimedia Technologies for E-Learning (MTEL) Workshop **(**Chair: TBD**)**	An app-based Spaced Repetition Learning Environment with User Generated Video Content *Schimanke, Mertens, Koelker*
	On the Creation of Classifiers to Support Assessment of E-Portfolios *Gantikow, Isking, Libbrecht, Mueller, Rebholz*
	Mental Workload in Augmented Reality-based Urban Planning Education *Das, Wolf, Schmidt, Soebke*
	Composing Music Through Tile-based Games *Laato, Rauti, Espeseth, Soebke, Hamari, Buruk*
	Identification of Visual Objects in Lecture Videos with Color and Keypoints Analysis *Biswas, Shah, Subhlok*
First Workshop on Computational Human-Robot Interaction (CHRI 2023) **(**Chair: TBD**)**	Analyzing the Impact of Distractions on Driver Attention: Insights from Eye Movement Behaviors in a Driving Simulator *Pradeep Narayana and Nada Attar*
	RoboMind: Supporting Older Adults through Robotic Web Applications *Omid Veisi, Maryam Akbarinigjeh, Saeed Motaee, Claudia Müller, Rainer Wieching and Volker Wulf*
6th International Workshop on New Frontiers in Computational Robotics + Semantic Multimedia Computing (Fall Edition) **(**Chair: TBD**)**	Cluster-based Dynamic Object Filtering via Egocentric Motion Detection for Building Static 3D Point Cloud Maps *Pengcheng Cao, Thomas Bewley and Falko Kuester*

	Development of an MRI Guided Auxiliary Robot for Spinal Injections *Depeng Liu, Zixuan Liu, Gang Li, Laura Connolly, Guofeng Shen and Iulian Iordachita*
	Consistency, Uncertainty or Inconsistency Detection in Multimodal Emotion Recognition *Alessia Fantini, Giovanni Pilato and Gianpaolo Vitale*
	GPU-accelerated Lossless Image Compression with Massive Parallelization *Yu Shen, Gang Wu, Viswanathan Swaminathan, Haoliang Wang, Stefano Petrangeli and Tong Yu*
	Complex Event Processing in Heterogeneous Domains *Fabio Persia and Daniela D'Auria*
9th Workshop on Collaboration of Humans, Agents, Robots, Machines and Sensors (CHARMS 2023) **(**Chair: TBD**)**	Stress Factors in Human-Robot Collaboration: Investigating Speed, Robot Density, and Orientation *Nisa Mareldiya Soltani, Qian Zhang, Mia Y Wang and Ellie Lovellette*
	Distributed Agent-Based Collaborative Learning in Cross-Individual Wearable Sensor-Based Human Activity Recognition *Ahmad Esmaeili, Zahra Ghorrati, Eric T. Matson*
	Enhancing Robustness of Indoor Robotic Navigation with Free-Space Segmentation Models Against Adversarial Attacks *Qiyuan An, Christos Sevastopoulos, Fillia Makedon*