

Program at a glance (IEEE IRC 2019)

February 25 (Monday)			
	Aula Magna	Sala A	Sala B
08:00-17:00	Registration		
08:50-09:10	Opening Ceremony		
09:10-10:00	Keynote I Dr. Nick Hawes (Chair: Davide Brugali)		
10:00-10:20	Coffee Break		
10:20-12:00	IRC(1) Path Planning and Robot Navigation I (20 mins x4)	IRC(2) Task Planning and Multirobot I (20 mins x5)	IRC(3) Formal Methods for Analysis and Design I (20 mins x5)
12:00-13:30	Lunch (on your own)		
13:30-15:10	IRC(4) Robot Cognition I (20 mins x4)	IRC(5) Object Recognition and Tracking I (20 mins x5)	IRC(6) Task Planning and Multirobot II (15 mins x5)
15:10-15:20	Intermission		
15:20-16:40	Best Paper Session (20 mins x4)		
16:40-17:00	Coffee Break		
17:00-18:20	IRC(7) Path Planning and Robot Navigation II (15 mins x5)	IRC(8) Sensor Fusion and Integration (15 mins x5)	IRC(9) Object Recognition and Tracking II (15 mins x5)
18:30-20:30	Reception		

February 26 (Tuesday)

	Aula Magna	Sala A	Sala B
08:00-17:00	Registration		
09:10-10:00	Keynote II Prof. Arianna Menciassi (Chair: Daniela D'Auria)		
10:00-10:20	Coffee Break		
10:20-12:00	IRC(10) Hardware Modeling and Abstraction (20 mins x5)	IRC(11) Formal Methods for Analysis and Design II (20 mins x4)	IRC(12) Robot Cognition II (20 mins x4)
12:00-13:30	Lunch (on your own)		
13:30-15:00	IRC(13) Formal Methods for Analysis and Design III (15 mins x6)	Workshop: WSR (15 mins x6)	IRC(14) Robot Cognition III (15 mins x5)
15:00-16:20	Panel Session		
16:20-16:40	Coffee Break		
16:40-18:00	Poster Session I		
18:00-19:00	Break		
19:00-21:00	Banquet		

February 27 (Wednesday)

	Aula Magna	Sala A	Sala B
08:00-17:00	Registration		
08:35 - 09:05		Workshop: CHARMS(1) (15 mins x2)	
09:05-10:20	Workshop: NFCR(1) (15 mins x5)	Workshop: CHARMS(2) (15 mins x5)	Workshop: MR(1)
10:20-10:40	Coffee Break		
10:40-12:00	Workshop: NFCR(2) (15 mins x5)	Workshop: CHARMS(3) (15 mins x4)	Workshop: MR(2)
12:00-13:30	Lunch (on your own)		
13:30-14:30	Workshop: NFCR(3) (15 mins x4)	Tutorial(1) Part I, II	Workshop: MR(3)
14:30-14:50	Coffee Break		
14:50-17:30		Tutorial(2) Part III	Workshop: MR(4)
17:30 – 18:50	Poster Session II	Tutorial(3) Part III, IV	

Detailed Sessions (IEEE IRC 2019)

Session	Paper ID	Title
Session 1: Path Planning and Robot Navigation I (full paper: 20 min/paper) Session Chair: Jong Park	15	Juan Luis Hortelano, Norbert Krüger and Jorge Rodriguez. <i>Heuristics-Based Explorer for 2D Navigation.</i>
	35	Baran Demir, Frank Hoeller, Francisco Garcia Rosas, Dirk Schulz and Nils Goerke. <i>Spline-based Robot Trajectory Generation Using the Dynamic Window Approach.</i>
	34	Frank Hoeller, Francisco Garcia Rosas, Dirk Schulz and Devvrat Arya. <i>LEO: Liquid Exploration Online.</i>
	67	Daniel Wilbers, Lars Rumberg and Cyrill Stachniss. <i>Approximating Marginalization with Sparse Global Priors for Sliding Window SLAM-Graphs.</i>
Session 2: Task Planning and Multirobot I (full paper: 20 min/paper) Session Chair: Genci Capi	56	Ali Demir and Volkan Sezer. <i>Motion Planning And Control with Randomized Payloads Using Deep Reinforcement Learning.</i>
	19	Esteban Vaca, Pilar Samaniego, Patricio Cruz and Paulo Leica. <i>Null-Space based Robust Controller for Quadcopter's formation in windy environments.</i>
	120	Yizhe Zhang, Lianjun Li, Jorge Nicho, Michael Ripperger, Andrea Fumagalli and Malathi Veeraraghavan. <i>Gilbreth 2.0: An industrial cloud robotics pick-and-sort application.</i>
	127	Dennis Leroy Wigand and Sebastian Wrede. Model-Driven Scheduling of Real-Time Tasks for Robotics Systems.
Session 3: Formal Methods for Analysis and Design I (full paper: 20 min/paper) Session Chair: Miwako Doi	10	Lukas Christoffer Malte Wiuf Schwartz, Lars-Peter Ellekilde and Norbert Krüger. <i>Automated Fixture Design using an Imprint-based Design Approach & Optimisation in Simulation.</i>
	99	André Santos, Alcino Cunha and Nuno Macedo. <i>Static-time Extraction and Analysis of the ROS Computation Graph.</i>
	21	Bernhard Dieber and Benjamin Breiling. <i>Security considerations in modular mobile manipulation.</i>
	32	Marc Pichler, Bernhard Dieber and Martin Pinzger. <i>Can I depend on you? Mapping the dependency and quality landscape of ROS packages.</i>

	40	Miguel Campusano and Alexandre Bergel. <i>VizRob: Effective Visualizations to Debug Robotic Behaviors.</i>
	145	Cristiana Miranda de Farias, Luis Felipe da Cruz Figueredo and João Yoshiyuki Ishihara. <i>Performance Study on dqRNEA – A Novel Dual Quaternion based Recursive Newton-Euler Inverse Dynamics Algorithms.</i>
Session 4: Robot Cognition I (full paper: 20 min/paper) Session Chair: Taskin Padir	30	Sofiane Lagraa, Maxime Cailac, Sean Rivera, Frédéric Beck and Radu State. <i>Real-time attack detection on robot cameras: A self-driving car application.</i>
	121	Tianwei Zhang and Yoshihiko Nakamura. <i>HRPSlam: A Benchmark for RGB-D Dynamic SLAM and Humanoid Vision.</i>
	52	Riccardo Monica and Jacopo Aleotti. <i>A 3D Robot Self Filter for Next Best View Planning.</i>
	147	Félix Suárez Bonilla and Federico Ruiz Ugalde. <i>Automatically matic Translation of Spanish Natural Language Commands to Control Robot Comands based on LSTM neural network.</i>
Session 5: Object Recognition and Tracking I (full paper: 20 min/paper) Session Chair: Debashis Chakraborty	72	Dorian Rohner and Dominik Henrich. <i>Object Recognition for Robotics based on Planar Reconstructed B-Rep Models.</i>
	54	Enrica Soria, Fabrizio Schiano and Dario Floreano. <i>The influence of limited visual sensing on the Reynolds flocking algorithm.</i>
	138	Mulham Fawakhrji, Ali Youssef, Domenico Bloisi, Alberto Pretto and Daniele Nardi. <i>Weed and Crop Classification for Precision Agriculture using Pixel-Wise Segmentation.</i>
	109	Dongfang Liu, Yaqin Wang, Tian Chen and Eric Matson. <i>Application of Color Filter Adjustment and K-Means Clustering Method in Lane Detection for Self-Driving Cars.</i>
	131	Unmesh Patil, Aniket Gujarathi, Akshay Kulkarni, Aman Jain, Lokeshkumar Malke, Radhika Tekade, Kartik Paigwar and Pradyumn Chaturvedi. <i>Deep Learning based Stair Detection and Statistical Image Filtering for Autonomous Stair Climbing.</i>
	93	Alexandre Manoury, Sao Mai Nguyen and Cédric Buche. <i>CHIME: an Adaptive Hierarchical Representation for Continuous Intrinsically Motivated Exploration.</i>

Session 6: Task Planning and MultiRobot II (short paper: 15 min/paper) Session Chair: John Gallagher	117	Matteo Saveriano, Michael Seegerer, Riccardo Caccavale, Alberto Finzi and Dongheui Lee. <i>Symbolic Task Compression in Structured Task Learning.</i>
	58	Frank Nägele, Lorenz Halt, Philipp Tenbrock and Andreas Pott. <i>Composition and Incremental Refinement of Skill Models For Robotic Assembly Tasks.</i>
	126	Mario Di Castro, Giacomo Lunghi, Manuel Ferre, Raul Marin and Aessandro Masi. <i>A Multidimensional RSSI Based Framework for Autonomous Relay Robots in Harsh Environments.</i>
Best Paper Session (full paper: 20 min/paper) Session Chair: Fabio Persia	88	Yapeng Gao, Jonas Tebbe, Julian Krismer and Andreas Zell. <i>Markerless Racket Pose Detection and Stroke Classification based on Stereo Vision for Table Tennis Robots.</i>
	50	Donghyun Kim, Suneung Kim, Mingi Kim, Myeongseob Ko and Kwangtaek Kim. <i>Illumination invariant skin texture generation using CGAN from a single image for haptic augmented palpation.</i>
	28	Ahmad Pishehvari, Uri Iurgel, Stephanie Lessmann, Lutz Roesse-Koerner and Bernd Tibken. <i>Radar Scan Matching Using Navigation Maps.</i>
	78	Dinh-Khanh Ho, Karim Ben Chehida, Benoit Miramond and Michel Auguin. <i>QoS and Energy-Aware Run-time Adaptation for Mobile Robotic Missions: A Learning Approach.</i>
Session 7: Path Planning and Robot Navigation II (short paper: 15 min/paper) Session Chair: Francois Ingrand	66	Daniel Wilbers, Christian Merfels and Cyrill Stachniss. <i>A Comparison of Particle Filter and Graph-based Optimization for Localization with Landmarks in Automated Vehicles.</i>
	75	Antin Paul Phillips and Mathys Cornelius du Plessis. <i>Towards the Incorporation of Proprioception in Evolutionary Robotics Controllers.</i>
	76	Peter Zechel, Ralph Streiter, Klaus Bogenberger and Ulrich Goehner. <i>Pedestrian Occupancy Prediction for Autonomous Vehicles.</i>
	153	Rahul Kranti Kiran G, Indu Kant Deo, Sanskar Agrawal, Het Shah, Siddhant Haldar, Sohan Rudra, Harsh Maheshwari, Aditya Rathore, Poojan Shah, Ashwin Nehete and Debashish Chakravarty. <i>Design and Implementation of Autonomous Ground Vehicle for constrained environments.</i>

Session 8: Sensor Fusion and Integration (short paper: 15 min/paper) Session Chair: Xue Wang	68	Ahmad Amin Kharboutli, Markus Hiller, Thorsten Nowak, Markus Hartmann, Florian Particke and Jörn Thielecke. <i>Efficient Localization using Radio-Based Sensors and Odometry.</i>
	110	Patricia Javierre, Paloma de la Puente and Biel Piero Alvarado. <i>Particle filter localization using visual markers based omnidirectional vision and a laser sensor.</i>
	74	Urban B. Himmelsbach, Thomas M. Wendt, Nikolai Hangst and Philipp Gawron. <i>Single Pixel Time-of-Flight Sensors for Object Detection and Self-Detection in Three-Sectional Single-Arm Robot Manipulators.</i>
	39	Arturs Ivanovs, Agris Nikitenko, Mario Di Castro, Toms Torims, Alessandro Masi and Manuel Ferre. <i>Multi-sensor Based Low-Cost System for Real-Time Human Detection and Remote Vital Parameter Acquisition.</i>
	79	Hee-Seung Moon and Jiwon Seo. <i>Observation of Human Response to a Robotic Guide Using a Variational Autoencoder.</i>
Session 9: Object Recognition and Tracking II (short paper: 15 min/paper) Session Chair: Luca Muratore	89	Maria Victorova, David Navarro-Alarcon and Yong-Ping Zheng. <i>3D Ultrasound Imaging of Scoliosis with Force-Sensitive Robotic Scanning.</i>
	53	Guoliang Han, Xiaofeng He, Xiaoping Hu, Lilian Zhang, Chen Fan, Jun Mao, Xin Li and Xuesong Wu. <i>A polarized light compass aided place recognition system.</i>
	42	Doron Nussbaum and Stephanie Thoumy. <i>Identifying Hazardous Shapes In the Plane.</i>
	73	Soon-Sub Kwon and Tae-Hyoung Park. <i>Object Detection Using Multiple 3D Low-Channel Lidar and Polar-View.</i>
	155	Eirik Njåstad and Olav Egeland. <i>Visual Tracking of Manual Surface Finishing Tool and Planning of Robotic Inspection of Tolerances.</i>
Session 10: Hardware Modeling and Abstraction (full paper: 20 min/paper) Session Chair: Giovanni Pilato	49	Erik Jung, Victoria Ly, Adam Buderer, Emma Appleton and Mircea Teodorescu. <i>Design and Selection of Muscle Excitation Patterns for Modeling a Lower Extremity Joint Inspired Tensegrity.</i>
	51	Yixiang Liu, Xizhe Zang, Chao Wang and Yubin Liu. <i>A Bio-Inspired Musculoskeletal Model of the Lower Limb for Energy Economical Bipedal Walking.</i>
	142	Mohammadreza Sharif and Taskin Padir.

		<i>Human-in-the-Loop Prosthetic Robot Hand Control Using Particle Filters for Grasp Selection.</i>
	154	Mauricio Jaramillo Morales, Lino Marques, Sedat Dogru and Juan Gómez Mendoza. <i>Predictive Power Estimation for a Differential Drive Mobile Robot Based on Motor and Robot Dynamic Models.</i>
	149	Jesus Lugo, Alessio Caligiuri, Matteo Zoppi and Rezia Molfino. <i>Position and stiffness control of one DoF revolute joint using a biphasic media variable stiffness actuator.</i>
Session 11: Formal Methods for Analysis and Design II (full paper: 20 min/paper) Session Chair: Chun-Ming Chang	136	Takumi Nakamura, Akishige Yuguchi, Aubert Maël, Gustavo Alfonso Garcia Ricardez, Jun Takamatsu and Tsukasa Ogasawara. <i>Ontology Generation using GUI and Simulation for Robots to Operate Appliances.</i>
	23	Felix Ingrand. <i>Recent Trends in Validation and Verification of Autonomous Robots Software.</i>
	24	Nadia Hammoudeh Garcia, Mathias Luedtke, Sitar Kortik, Bjoern Kahl and Mirko Bordignon. <i>Bootstrapping MDE Development from ROS Manual Code - Part 1: Metamodeling.</i>
	139	Felix Frank, Alexandros Paraschos and Patrick van der Smagt. <i>ORC---a lightweight, lightning-fast middleware.</i>
Session 12: Robot Cognition II (full paper: 20 min/paper) Session Chair: Andrea Caiti	130	Plinio Moreno, André Silva, Maria Brites and Tiago Paulino. <i>Estimation of lightweight object's mass by a humanoid robot during a precision grip with soft tactile sensors.</i>
	125	Shu Jiang. <i>A Study of Initiative Decision-Making in Distributed Human-Robot Teams.</i>
	157	Yuto Tsuchiya, Takuya Kiyokawa, Gustavo Garcia Ricardez, Jun Takamatsu and Tsukasa Ogasawara. <i>Pouring from Deformable Containers using Dual-Arm Manipulation and Tactile Sensing.</i>
	10	Lukas Christoffer Malte Wiuf Schwartz, Lars-Peter Ellekilde and Norbert Krüger. <i>Automated Fixture Design using an Imprint-based Design Approach & Optimisation in Simulation.</i>
Session 13: Formal Methods for Analysis and Design III (short paper: 15 min/paper)	45	Qiufeng Ren, Yue Zheng, Yangyang Fan and Zhendong Niu. <i>Resource Recommendation Algorithm Based on Text Semantics and Sentiment Analysis.</i>
	61	Marco Frigerio, Enea Scioni, Pawel Pazderski and Herman Bruyninckx. <i>Code generation from declarative models of robotics solvers.</i>

Session Chair: Arafatur Rahman	48	Gian Piero Zarri. <i>Knowledge Representation and Reasoning According to an Advanced N-ary Model.</i>
	148	Zainab Al-Qurashi and Brian Ziebart. <i>Hybrid Algorithm for Inverse Kinematics using Deep Learning and Coordinate Transformation.</i>
	123	Pierluigi Arpentì, Diana Serra, Fabio Ruggiero and Vincenzo Lippiello. <i>Control of the TORA System through the IDA-PBC without Explicit Solution of Matching Equations.</i>
	65	Alexandre Cherpillod, Stefano Mintchev and Dario Floreano. <i>Embodied Flight with a Drone.</i>
Session 14: Robot Cognition III (short paper: 15 min/paper) Session Chair: Lino Marques	69	Andrzej Reinke, Marco Camurri and Claudio Semini. <i>A Factor Graph Approach to Multi-Camera Extrinsic Calibration on Legged Robots.</i>
	71	Dae-Ui Lim, Young-Gyu Kim and Tae-Hyoung Park. <i>SMD Classification for Automated Optical Inspection Machine using Convolution Neural Network.</i>
	105	Liviu Alexandru Marina, Bogdan Trasnea, Tiberiu Cocias, Andrei Vasilcoi, Florin Moldoveanu and Sorin Mihai Grigorescu. <i>Deep Grid Net (DGN): A Deep Learning System for Real-Time Driving Context Understanding.</i>
	47	Dennis Sprute, Klaus Toennies and Matthias Koenig. <i>This Far, No Further: Introducing Virtual Borders to Mobile Robots Using a Laser Pointer.</i>
	132	Xue Wang, Youtian Du, Xuelian Li, Fuyuan Cao and Chang Su. <i>Embedded Representation of Relation Words with Visual Supervision.</i>
Poster Session I Session Chair: Yujin Shin	18	Cornelia Schulz, Richard Hanten, Matthias Reisenauer and Andreas Zell. <i>Simultaneous Collaborative Mapping Based on Low-Bandwidth Communication.</i>
	31	Sean Rivera, Sofiane Lagraa and Radu State. <i>ROSploit: Cybersecurity tool for ROS.</i>
	33	Kakeru Morita, Masafumi Hashimoto and Kazuhiko Takahashi. <i>Point Cloud Mapping and Merging using Mobile Laser Scanner.</i>
	43	Rodrigo Delgado and Alexandre Bergel. <i>Continuation to the Rescue: Seamlessly Handling Battery Interruption in Drones.</i>
	63	Enrico Marchesini, Davide Corsi, Andrea Benfatti, Alessandro Farinelli and Paolo Fiorini

		<i>Double Deep Q-Network for Trajectory Generation of a Commercial 7DOF Redundant Manipulator</i>
	82	Peter Zechel, Ralph Streiter, Klaus Bogenberger and Ulrich Goehner. <i>Probabilistic Interaction-Aware Occupancy Prediction for Vehicles in Arbitrary Road Scenes.</i>
	83	Sergei Bauer, Martin Brunner and Peter Schartner. <i>Lightweight Authentication for Low-End Control Units with Hardware Based Individual Keys.</i>
	85	Jose Villa, Sauli Virta, Jussi Aaltonen and Kari T. Koskinen. <i>Model-based control architecture for a twin jet Unmanned Surface Vessel.</i>
	86	Clara Gomez, Alejandra C. Hernandez, Ramon Barber, Luis Moreno and Oscar Martinez-Mozos. <i>Localization of Mobile Robots incorporating Scene Information in a Hierarchical Model.</i>
	100	Yujin Shin and Euiho Kim. <i>Primitive Path Generation for a UWB Network based Auto Landing System.</i>
	107	Roger Bostelman and Elena Messina <i>A-UGV Capabilities - Recommended Guide to Autonomy Levels.</i>
<p style="text-align: center;">Poster Session II</p> <p style="text-align: center;">Session Chair: Lino Marques</p>	101	Jordan Masakuna, Simukai Utete and Steve Kroon. <i>A Coordinated Search. Strategy for Solitary Robots.</i>
	92	Wang Wei, Md Arafatur Rahman, Ibnu Febry Kurniawan, A. Taufiq Asyhari, Liu Yao and S M Nazmus Sadat. <i>Immune Genetic Algorithm Optimization and Integration of logistics network Terminal resources.</i>
	96	Patrick Speleers and Marc Ebner. <i>Acceleration based Collision Detection with a Mobile Robot.</i>
	108	Wankun Sirichotiyakul, Volkan Patoglu and Aykut Satici. <i>Convex Multi-Criteria Design Optimization of Robotic Manipulators via Sum-of-Squares Programming.</i>
	122	Crino Shin and Jongpil Yun. <i>Deep Rotating Kernel Convolution Neural Network.</i>
	124	Bogdan Trasnea, Liviu Alexandru Marina, Andrei Vasilcoi, Claudiu Radu Pozna and Sorin Mihai Grigorescu. <i>GridSim: A Simulated Vehicle Kinematics Engine for Deep Neuroevolutionary Control in Autonomous Driving,</i>
	129	Arturo Laurenzi, Dimitrios Kanoulas, Enrico Mingo Hoffman, Luca Muratore and Nikos Tsagarakis. <i>Whole-Body Stabilization for Visual-based Box Lifting with the COMAN+ Robot.</i>

	133	Marco Ferro, Damiano Brunori, Federico Magistri, Lorenzo Saiella, Mario Selvaggio and Giuseppe Andrea Fontanelli. <i>A portable da Vinci simulator in virtual reality.</i>
	137	Dario Panariello, Teodorico Caporaso, Stanislao Grazioso, Giuseppe Di Gironimo, Antonio Lanzotti, Sebastian Knopp, Luigi Pelliccia, Mario Lorenz and Philipp Klimant. <i>Using the KUKA LBR iiwa Robot as Haptic Device for Virtual Reality Training of Hip Replacement Surgery.</i>
	146	Sedat Dogru and Lino Marques. <i>Grid Based Indoor Mapping Using Radar.</i>
	11	Terry Traylor, Jeremy Straub, Nicholas Snell and Chaudhary Gurmeet. <i>Identifying Fake News Articles Using Natural Language Processing to Identify "In-Article" Attribution as a Supervised Learning Estimator.</i>
	12	Adel Alshehri, Wainella Isaacs, Aseel Addawood, Maya Trotz and Sriram Chellappan. <i>Predicting Community Engagement on Twitter on Environmental Health Hazards.</i>
Workshop CHARMS (15 min/paper) Session Chair: Eric Matson	5th Workshop on Collaboration of Humans, Agents, Robots, Machines and Sensors	
	1	Tyler Highlander and Bernard Abayowa. <i>Conditional Dilated Convolution Attention Tracking Model.</i>
	2	Jiyeon Oh, Daeun Choe, Chanhui Yun, Michael Hopmeier and Jeonghwan Kim. <i>Towards the development and realization of an undetectable UAV.</i>
	3	David Valencia and Dong Han Kim. <i>Trajectory Tracking Control for Multiple Quadrotors Based on a Neurobiological-Inspired System.</i>
	4	Keonyoung Shim, Yoojin Choi, Kyungmin Kim, Hyewon Jeon, Jane Commerford and Eric T. Matson. <i>Analyzing the range of angles of a solar panel to detect defective cells, using a UAV.</i>
	5	Taeyang Gwon, Hyeonjun Park, Donghyeon Seo, Sangheum Lee, Donghan Kim and Sangwon Jeon. <i>A Study on Safety Evaluation Criteria of the Personal Carrier Robot based on ISO 13482.</i>
	6	Yeon Kang, Donghan Kim and Kwangjin Kim. <i>URDF generator for Manipulator using DH parameters.</i>
	7	Donghyeon Seo, Harin Kim and Donghan Kim. <i>Push Recovery Control for Humanoid Robot using Reinforcement Learning.</i>

	8	Bowon Yang, Eric Matson, Eric Dietz, Anthony Smith and John Gallagher. <i>UAV Detection System with Multiple Acoustic Nodes Using Machine Learning Models.</i>
	10	John Gallagher and Eric Matson. <i>A Demonstration of Core-Model Independence in Evolutionary Model Consistency Checking.</i>
	11	Piotr Artiemjew and Krzysztof Ropiak. <i>Robot localization in the magnetic unstable environment.</i>
	12	Heonseop Shin, Sanghoon Kim, Kwang Seo and Sungsoo Rhim. <i>A real-time human-robot collision safety evaluation method for collaborative robot.</i>
Workshop WSR (15 min/paper) Session Chair: Giovanni Pilato	Third International Workshop on Semantic Robots	
	1	Qian Gao and Aimei Dong. <i>A Contextual Reasoning Research Based On the Uncertain Context.</i>
	2	Yiqun Zhang, Peng Cheng Ma and Qian Gao. <i>Multiple Classification Models based Students' Phobia Prediction Study.</i>
	3	Tatiana Ringenberg, Kanishka Misra, Kathryn Seigfried-Spellar and Julia Rayz. <i>Exploring Automatic Identification of Fantasy-Driven and Contact-Driven Online Solicitation.</i>
	4	Dong Li, Derong Shen, Yue Kou, Yichuan Shao, Tiezheng Nie and Rui Mao. <i>Exploiting Unlabeled Ties for Link Prediction in Incomplete Signed Networks.</i>
	5	Nayoung Yun, Hakjun Lee, Jiwon Moon and Ki-Baek Lee. <i>Korean Customer Service Associate Assist System based on Machine Learning.</i>
	6	Daniela D'Auria, Fabio Persia, Fabio Bettini and Sven Helmer. <i>Predicting and Preventing Dangerous Events Via Video Surveillance Using a Robotic Platform.</i>
Workshop NFCR (15 min/paper) Session Chair: Daniela D'Auria	Third International Workshop on New Frontiers in Computational Robotics	
		Invited Talk. Fabio Persia. <i>An Interactive Framework for Video Surveillance Event Detection and Modeling.</i>
	1	Yuki Yamazaki, Chinthaka Premachandra, Chamika Janith Perera, Sagara Sumathipala and B. H. Sudantha. <i>Victim Detection Using UAV with On-board Voice Recognition System.</i>

2	Saumya Kumar, Navaneethkrishnan B, Sinchana Hegde, Pragadeesh Raja and S N Omkar. <i>Towards Behavioural Cloning for Autonomous Driving.</i>
3	Delowar Hossain, Sivapong Nilwong, Tran Duc Dung and Genci Capi. <i>A Faster R-CNN Approach for Partially Occluded Robot Object Recognition.</i>
4	Nikolay Bratovanov. <i>Robot Modeling, Motion Simulation and Off-line Programming Based on SolidWorks API.</i>
5	Gianluca Bardaro, Andrea Semprebon, Agnese Chiatti and Matteo Matteucci. <i>From Models To Software Through Automatic Transformations: An AADL To ROS End-to-End Toolchain.</i>
6	Kazuhiko Takahashi and Iwao Sugimoto. <i>Remarks on Recognition of Aromas from Tea Leaves Using Deep Neural Network based on PPF-coated QCR Sensor Signals.</i>
7	Hai Nguyen and Hung La. <i>Review of Deep Reinforcement Learning for Robot Manipulation.</i>
8	Adarsh Sehgal, Hung La, Sushil Louis and Hai Nguyen. <i>Deep Reinforcement Learning using Genetic Algorithm for Parameter Optimization.</i>
9	Ashutosh Singandhupe and Hung La. <i>A Review of SLAM Techniques and Security in Autonomous Driving.</i>
10	Satoki Tsuichihara, Shingo Akita, Reiichirou Ike, Masahiro Shigeta, Hiroshi Takemura, Takahiro Natori, Naoyuki Aikawa, Kazumasa Shindo, Yasuyuki Ide and Shigeki Tejima. <i>Drone and GPS sensors-based grassland management using deep-learning image segmentation.</i>
11	Ashish Malik. <i>A generic decentralized gait generator architecture for statically stable motion of crawling robots.</i>
12	Jesus Lugo, Vishal Ramadoss, Rezia Molfino and Matteo Zoppi. <i>Modeling of a cable-based revolute joint using biphasic media variable stiffness actuation.</i>
13	Barnali Das, Gordon Dobie and Stephen Gareth Pierce. <i>AS-EKF: a delay aware state estimation technique for telepresence robot navigation.</i>
14	Agnese Augello and Giovanni Pilato. <i>An Annotated Corpus of Stories and Gestures for a Storyteller Robot.</i>

Workshop of Marine Robots

Workshop of Marine Robots Session Chair: Gianluca Antonelli, Fausto Ferreira, Gabriele Ferri	Invited Talk. Dr. Roberto Petroccia. <i>Underwater communications and networking: challenges and ways forward.</i>
	Invited Talk. Prof. Andrea Caiti. <i>Ask the way, don't go astray! Cooperative localization and navigation with multiple Autonomous Underwater Vehicles.</i>
	Invited Talk. Prof. Francesco Maurelli. <i>Intelligent localisation in marine robotics.</i>
	Invited Talk. Dr. Gabriele Ferri. <i>Marine robotics at CMRE.</i>
	Invited Talk. Dr. Narcís Palomeras. <i>From mapping to exploration, from exploration to intervention.</i>
	Invited Talk. Dr. Andrea Munafò. <i>Marine Autonomous Robotic Systems in Extreme Environments: Experience from the Field.</i>
	Invited Talk. Dr. Stephanie Kemna. <i>Safe cooperating unmanned vehicles in marine operations.</i>
	Invited Talk. Prof. Marcello Calisti. <i>On the use of soft components in underwater robotics.</i>