2014 IEEE/ASME 10th International Conference on Mechatronic and Embedded Systems and Applications

(MESA 2014)

Senigallia (AN), Italy
10-12 September 2014

IEEE Catalog Number: CFP14MES-POD
ISBN: 978-1-4799-2281-9

WePlenary	Wednesday September 10	09:00-10:40	Dolce Vita Room
Chairs	Massimo Callegari		

Interval		Symposium	Paper#	Title	Authors
09:00	10:40	KN	KN1	THE DEVELOPMENT OF A FAST PICK-AND-PLACE ROBOT WITH AN INNOVATIVE CYLINDRICAL DRIVE	Jorge Angeles

WeAT1	Wednesday September 10	11:00-12:40	Dolce Vita Room
Chairs	Massimo Callegari		

Interval		Symposium	Paper#	Title	Authors
11:00	11:20	RM	30	Mantis Hybrid Leg-Wheel Robot: Stability Analysis and Motion Law Synthesis for Step Climbing 1	Luca Bruzzone, Pietro Fanghella
11:20	11:40	RM	39	Experimental Experiences with a LARM Tripod Leg Mechanism 7	Mingfeng Wang, Marco Ceccarelli, Giuseppe Carbone
11:40	12:00	RM	59	Towards the design of a leg-wheel walking hexapod 13	Franco Tedeschi, Giuseppe Carbone
12:00	12:20	RM	40	Conceptual Design and Feasibility study of a novel upper-limb Exoskeleton 19	Hermes Giberti, Vitale Bertoni, Gianmarc Coppola
12:20	12:40	RM	31	Strategy for Designing a Control System for a Target-Approach Task by a Mobile Robot 25	Mateusz Przybyla, Krzysztof Lakomy, Przemyslaw Herman

WeAT2	Wednesday September 10	11:00-12:40	Rina Room
Chairs	Massimo Bertozzi		

Interval		Symposium	Paper#	Title	Authors
11:00	11:20	ITS	57	An Embedded System for Counting Passengers in Public Transportation Vehicles 31	Nicola Bernini, Luca Bombini, Michele Buzzoni, Pietro Cerri, Paolo Grisleri
11:20	11:40	ITS	103	Satisficing Collaborative Decision Making and Controlling for Airport Management 37	Cicero Almeida, Li Weigang, Giovani Meinerz
11:40	12:00	ITS	121	A new semi-active variational based damping control 43	Gianluca Pepe, Antonio Carcaterra
12:00	12:20	ITS	130	Real time monitoring and wear estimation of railway track with FBG sensors 50	Nicola Roveri, Antonio Carcaterra, Also Sestieri
12:20	12:40	ITS	133	Point to Point Navigation for People with Mobility Impairments 56	Adriano Mancini, Primo Zingaretti

WeAT3	Wednesday September 10	11:00-12:40	Europa Room
Chairs	Martin Horauer		

Interval		Symposium	Paper#	Title	Authors
11:00	11:20	APP	5	An Hydraulic Test Rig for the Testing of Quarter Turn Valve Actuation Systems 62	Luca Pugi, Giovanni Pallini, Andrea Rindi, Nicola Lucchesi
11:20	11:40	APP	44	dandel.io – Design of an Audio-Recorder Accessory 68	Wolfgang Fleck, Dominik Höllmüller, Johannes Wittmann, Gregor Aradi, Roman Beneder, Martin Horauer
11:40	12:00	APP	47	Parameters Identification of Induction Motor Dynamic Model for Offshore Applications 74	Witold Pawlus, Martin Choux, Geir Hovland, Van Khang Huynh
12:00	12:20	APP	NO SHOW		
12:20	12:40	APP	128	An automatic analysis of shoppers behaviour using a distributed RGB-D cameras system 80	Daniele Liciotti, Valerio Placidi, Primo Zingaretti

WeAT4	Wednesday September 10	11:00-12:40	Rotonda Building
Chairs	Lorena Rossi		

Interval		Symposium	Paper#	Title	Authors
11:00	11:20	AAL	135	Designing a user-centred ICT platform for active aging 86	Margherita Peruzzini, Michele Germani
11:20	11:40	AAL	136	Design and Realization of a Wideband Antenna for Non-Contact Respiration Monitoring in AAL Application 92	Valentina Di Mattia, Valerio Petrini, Emanuele Pallotta, Alfredo De Leo, Marco Pieralisi, Giovanni Manfredi, Paola Russo, Valter Mariani Primiani, Graziano Cerri, Lorenzo Scalise
11:40	12:00	AAL	137	Interoperability Issues Among Smart Home Technological Frameworks 96	L. Rossi, A. Belli, A. D. Santis, C. Diamantini, E. Frontoni, E. Gambi, L. Palma, L. Pernini, P. Pierleoni, D. Potena, L. Raffaeli, S. Spinsante, P. Zingaretti, D. Cacciagrano, F. Corradini, R. Culmone, F. D. Angelis, E. Merelli, B. Re,
12:00	12:20	AAL	138	Controlling AAL environments through BCI 103	Niccolo' Mora, Valentina Bianchi, Ilaria De Munari, Paolo Ciampolini
12:20	12:40	AAL	139	SLAM-based Autonomous Wheelchair Navigation System for AAL Scenarios 109	Luca Cavanini, Flavia Benetazzo, Alessandro Freddi, Sauro Longhi, Andrea Monteriù

WeBT1	Wednesday September 10	14:40-16:20	Dolce Vita Room
Chairs	Luca Bruzzone		

Interval		Symposium	Paper#	Title	Authors
14:40	15:00	RM	6	Design and testing of a spherical parallel mini manipulator 114	Giacomo Palmieri, Massimo Callegari, Luca Carbonari, Matteo Palpacelli
15:00	15:20	RM	42	A Picking Strategy for Circular Conveyor Tracking 120	Gioanni Boschetti
15:20	15:40	RM	64	Design of a Holonomic Ball Drive for Mobile Robots 126	Gundula Runge, Gunnar Borchert, Annika Raatz
15:40	16:00	RM	93	Error Recovery Strategies for Electronic Connectors Mating in Robotic Fault-tolerant Assembly System 132	Fei Chen, Ferdinando Cannella, Hironobu Sasaki, Carlo Canali, Toshio Fukuda
16:00	16:20	RM	76	A Goal-centric Framework for Behaviour Programming in Autonomous Robotic Systems 138	Fabrizio Messina, Giuseppe Pappalardo, Corrado Santoro

WeBT2	Wednesday September 10	14:40-16:20	Rina Room
Chairs	Bo Chen		

Interval		Symposium	Paper#	Title	Authors
14:40	15:00	ITS	54	Study the Performance of Battery Models for Hybrid Electric Vehicles 144	Baifan Wu, Bo Chen
15:00	15:20	ITS	48	An Innovative High Speed Weigh in Motion System for Railway Vehicles 150	Benedetto Allotta, Giulia Gaburri, Alice Innocenti, Lorenzo Marini, Enrico Meli, Luca Pugi, Pierluca D'adamio
15:20	15:40	EV	18	Design of an Educational Emulation Framework for Mechatronics Control Unit Development 157	Tamás Bécsi, Szilárd Aradi, Péter Gáspár
15:40	16:00	EV	19	Experimental Vehicle Development for Testing Autonomous Vehicle Functions 162	Szilárd Aradi, Tamás Bécsi, Péter Gáspár
16:00	16:20	EV	123	Examinations of complex traffic dynamic systems and new analysis, modeling and simulation of electrical vehicular systems 167	Ferenc Szauter, Peter Tamas, István Lakatos

WeBT3	Wednesday September 10	14:40-16:20	Europa Room
Chairs	Monica Bordegoni		

Interval		Symposium	Paper#	Title	Authors
14:40	15:00	APP	11	Vibration Control of a Semi-active Seat Suspension System using Magnetorheological Damper 172	Hassan Metered, Zbynek Sika
15:00	15:20	APP	67	Co-simulation based method for driving a Desktop Mechatronic Interface for shape rendering. 179	Mario Covarrubias, Monica Bordegoni, Umberto Cugini,
15:20	15:40	APP	81	Rapid prototyping of open source ordinary differential equations solver in distributed embedded control application 185	Andrea Bonci, Simone Imbrescia, Massimiliano Pirani, Paolo Ratini
15:40	16:00	VP	72	Design of an Open-Source Low Cost 2DOF Haptic Device 191	Alberto Lavatelli, Francesco Ferrise, Monica Bordegoni
16:00	16:20	VP	86	An extended Kalman filter approach for augmented strain/stress visualization in mechanical systems. 197	Frank Naets, Francesco Cosco, Wim Desmet

WeBT4	Wednesday September 10	14:40-16:20	Rotonda Building
Chairs	Lorena Rossi		

Interval		Symposium	Paper#	Title	Authors
14:40	15:00	AAL	140	Advanced Integration of Multimedia Assistive Technologies: A Prospective Outlook 203	Daniele Liciotti, Giacomo Ferroni, Emanuele Frontoni, Stefano Squartini, Emanuele Principi, Roberto Bonfigli, Francesco Piazza
15:00	15:20	AAL	141	Smartphone Based Fuzzy Logic Freezing of Gait Detection in Parkinson's Disease 209	Lucia Pepa, Lucio Ciabattoni, Federica Verdini, Marianna Capecci, Maria Gabriella Ceravolo
15:20	15:40	AAL	142	AAL Domain Ontology for Event-based Human Activity Recognition 215	Rosario Culmone, Marco Falcioni, Paolo Giuliodori, Emanuela Merelli, Alessandro Orrù, Michela Quadrini, Paolo Ciampolini, Ferdinando Grossi, Guido Matrella
15:40	16:00	AAL	143	A Simple Object for Elderly Vitality Monitoring: the Smart Insole 221	Adelmo De Santis, Ennio Gambi, Laura Montanini, Laura Raffaelli, Susanna Spinsante, Giorgio Rascioni

WeCT1	Wednesday September 10	16:40-18:20	Dolce Vita Room
Chairs	Annika Raatz		

Interval		Symposium	Paper#	Title	Authors
16:40	17:00	RM	116	Parametric Study for the Steady-State Equilibrium of a Towfish 227	Alessandro Cammarata, Rosario Sinatra
17:00	17:20	RM	83	A lockable spherical joint for robotic applications 233	Matteo Palpacelli, Luca Carbonari, Giacomo Palmieri
17:20	17:40	RM	111	Analytical Study on Improving Intrinsic Stiffness Modulation of Biarticularly Actuated Manipulators through Infinity Norm Resolution 239	Valerio Salvucci, Takafumi Koseki
17:40	18:00	RM	114	An Open-Source 3D Printed Underactuated Robotic Gripper 245	Yedige Tlegenov, Kuat Telegenov, Almas Shintemirov
18:00	18:20	RM	14	Design and performance analysis of an (nS)-2SPU underactuated wrist 251	Massimiliano Battistelli, Massimo Callegari, Raffaele Di Gregorio

WeCT2	Wednesday September 10	16:40-18:20	Rina Room
Chairs	István Lakatos		

Interval		Symposium	Paper#	Title	Authors
16:40	17:00	EV	10	Robust Servo Control Design for an Electro-Pneumatic Clutch System Using the H-infinity Method 257	Barna Szimandl, Huba Németh
17:00	17:20	EV	32	Development of a Full-scale Roller-rig to Test High Speed Trains under Degraded Adhesion Conditions 263	Benedetto Allotta, Roberto Conti, Enrico Meli, Luca Pugi, Alessandro Ridolfi
17:20	17:40	EV	90	Measurement based software execution tracing in HIL (Hardware In the Loop) tests 269	Balázs Scherer, Gábor Horváth
17:40	18:00	EV	109	Modeling and Simulation of a Hybrid Electric Propulsion System of a Green Ship 274	Tiffany Jaster, Andrew Rowe, Zuomin Dong
18:00	18:20	EV	120	Operation and applicability issues of powertrain models in electric vehicle development 280	István Lakatos, Péter Korös, Viktor Nagy

WeCT3	Wednesday September 10	16:40-18:20	Europa Room
Chairs	Maura Mengoni		

Interval		Symposium	Paper#	Title	Authors
16:40	17:00	VP	87	Simulator setup according to use case scenarios - A human-oriented method for virtual development 286	Niko Maas, Martin Koppers, Benjamin Hesse, Dieter Schramm
17:00	17:20	VP	101	Study and implementation of a multimodal system to support virtual prototyping 292	Lorenzo Cavalieri, Maura Mengoni, Michele Germani
17:20	17:40	VP	115	A VP-based application to improve usability of an upper-limb rehabilitation orthosis 298	Margherita Peruzzini, Matteo Iualé, Michele Germani
17:40	18:00	VP	119	Hardware-in-the-Loop Mechatronic Virtual Prototyping of a High Speed Capsule Filling Machine 304	Marcello Pellicciari, Alberto Vergnano, Giovanni Berselli
18:00	18:20	VP	102	An inclusive approach for home environment design 310	Maura Mengoni, Silvia Ceccacci, Damiano Raponi

ThPlenary	Thursday September 11	09:00-10:40	Dolce Vita Room
Chairs	Om Agrawal, Blas Vinagre		

Interval		Symposium	Paper#	Title	Authors
09:00	10:40	KN	KN2	APPLICATION OF FRACTIONAL CONTROL TO FLEXIBLE ROBOTS AND VIBRATION SUPPRESSION	Vicente Feliu Batlle

ThAT1	Thursday September 11	11:00-12:40	Dolce Vita Room
Chairs	Emanuele Frontoni		

Interval		Symposium	Paper#	Title	Authors
11:00	11:20	RES	107	Fuzzy Logic Simulator for Energy Management Algorithms Testing 316	Lucio Ciabattoni, Massimo Grisostomi, Gianluca Ippoliti, Sauro Longhi, Andrea Bonci
11:20	11:40	RES	127	Energy Harvesting system for smart shoes 322	Andrea Gatto, Emanuele Frontoni
11:40	12:00	RES	134	Indoor people localization and tracking using an energy harvesting smart floor 328	Marco Contigiani, Emanuele Frontoni, Adriano Mancini, Andrea Gatto
12:00	12:20	AS	82	An anti-capsize strategy for industrial vehicles: preliminary testing on a scaled AGV 333	Benedetto Allotta, Luca Pugi, Alessandro Ridolfi, Riccardo Costanzi, Fabio Bartolini, Niccolo Monni, Marco Natalini, Roberto Giusti
12:20	12:40	AS	108	Modular design of a novel wireless sensor node for smart environments 338	Massimo Grisostomi, Lucio Ciabattoni, Mariorosario Prist, Luca Romeo, Gianluca Ippoliti, Sauro Longhi

ThAT2	Thursday September 11	11:00-12:40	Rina Room
Chairs	Tapio Heikkilä		

Interval		Symposium	Paper#	Title	Authors
11:00	11:20	AM	49	A robot trajectory programming method using multi-camera systems 343	Silvio Giancola, Davide Chiarion, Remo Sala
11:20	11:40	AM	63	Calibration procedures for object locating sensors in flexible robotized machining 349	Tapio Heikkilä, Jari Ahola, Jukka Koskinen, Tuomas Seppala
11:40	12:00	AM	98	Identification of a Static Tool Force Model for Robotic Face Milling 355	Ilya Tyapin, Geir Hovland, Petri Kosonen, Tarmo Linna
12:00	12:20	AM	105	Hammer: An Android Based Application for End-User Industrial Robot Programming 361	Carlos Mateo, Alberto Brunete, Ernesto Gambao, Miguel Hernando
12:20	12:40	AM	122	Adaptive Control Techniques and Feed Forward Compensation of Periodic Disturbances in Industrial Manipulators 367	Aldo Bottero, Gian Paolo Gerio, Valerio Perna, Alberto Gagliano

ThAT3	Thursday September 11	11:00-12:40	Europa Room
Chairs	Om Agrawal		

Interval		Symposium	Paper#	Title	Authors
11:00	11:20	FD	3	Self-similar stochastic models with stationary increments for symmetric space-time fractional diffusion 374	Gianni Pagnini
11:20	11:40	FD	NO SHOW		
11:40	12:00	FD	22	Experimental analysis of a fractional-order control applied to a second order linear system 380	David Corinaldi, Matteo Palpacelli, Luca Carbonari, Luca Bruzzone, Giacomo Palmieri
12:00	12:20	FD	26	Frequency-domain subspace system identification with fractional differentiation models 386	Elena Ivanova, Rachid Malti, Xavier Moreau
12:20	12:40	FD	97	The Determination of an Unknown Source for a Space Fractional Advection Dispersion Equation 392	Abeer Aldoghaither, Taous-meriem Laleg-kirati, Da-yan Liu

ThBT1	Thursday September 11	14:40-16:20	Dolce Vita Room
Chairs	Ferdinando Cannella		

Interval		Symposium	Paper#	Title	Authors
14:40	15:00	RM	110	A bio-inspired mobile agent-based coalition formation system for multiple modular-robot systems 398	Binsen Qian, Harry Cheng
15:00	15:20	RM	104	A compact, lightweight and energy efficient system for autonomous navigation based on 3D vision 404	Stefano Mattoccia, Paolo Macrì, Giacomo Parmigiani, Giuseppe Rizza
15:20	15:40	RM	129	A Stereovision System for Dimensional Measurements in Industrial Robotics Applications 410	Gianluca Di Fulvio, Emanuele Frontoni, Adriano Mancini, Primo Zingaretti
15:40	16:00	RM	7	Modeling and evaluation of power transmission of flapping wing nano air vehicle 416	Alexandre Bontemps, Sebastien Grondel, Thomas Vanneste, Samuel Dupont, Eric Cattan
16:00	16:20	RM	60	Bond graph model of a flapping wing micro-air vehicle 422	Samuel Dupont, Sebastien Grondel, Alexandre Bontemps, Eric Cattan, Daniel Coutelier

ThBT2	Thursday September 11	14:40-16:20	Rina Room
Chairs	Shane Xie		

Interval		Symposium	Paper#	Title	Authors
14:40	15:00	BIO	4	Development of a Compliant Hand Assistive Device 428	Siddharth Goutam, Kean Aw
15:00	15:20	BIO	13	A Computational Biomechanical Model of the Human Ankle for Development of an Ankle Rehabilitation Robot 434	Fenfang Zeng, Guoli Zhu, Yunho Tsoi, Shane Xie
15:20	15:40	BIO	15	Voltage Driven Electrowetting based Microfluidic Operations for Efficient Droplet Routing in Digital Microfluidic Biochips 440	Indrajit Pan, Tuhina Samanta
15:40	16:00	BIO	27	Influence of gender on the myoelectric signal of shank muscles 446	Francesco Di Nardo, Alessandro Mengarelli, Elvira Maranesi, Laura Burattini, Sandro Fioretti
16:00	16:20	BIO	28	Influence of gender on the myoelectric signal of thigh muscles 450	Francesco Di Nardo, Alessandro Mengarelli, Elvira Maranesi, Laura Burattini, Sandro Fioretti

ThBT3	Thursday September 11	14:40-16:20	Europa Room
Chairs	Dumitru Baleanu		

Interval		Symposium	Paper#	Title	Authors
14:40	15:00	FD	NO SHOW		
15:00	15:20	FD	35	Additional optimization parameter for a simplified design of third generation CRONE controllers 454	Abderrahim Lamara, Patrick Lanusse, Dominique Nelson Gruel, Yann Chamaillard, Antoine Lesobre, Alain Oustaloup
15:20	15:40	FD	56	On Tempered and Substantial Fractional Calculus 460	Jianxiong Cao, Changpin Li, Yangquan Chen
15:40	16:00	FD	65	Fractional Disturbance Observer for Vibration Suppression of a Beam-Cart System 466	Inés Tejado, Blas M. Vinagre, Daniel Torres González, Emiliano Pérez
16:00	16:20	FD	118	Permeation of water through the stratum corneum. A mathematical model based on diffusion with memory 471	Michele Caputo, Cesare Cametti

ThCT1	Thursday September 11	16:40-18:20	Dolce Vita Room
Chairs	Harry Cheng		

Interval		Symposium	Paper#	Title	Authors
16:40	17:00	RM	45	Recursive Algorithm For Simulation Of Single Chain Manipulator Dynamics 475	Nikita Yaskevich
17:00	17:20	RM	94	Simulation of a Cable-driven Actuation Concept for a Humanoid Robot Prototype 480	Sebastian Feldmann, Tobias Bruckmann, Dieter Schramm
17:20	17:40	EDU	68	A Low Cost Mobile Platform for Educational Robotic Applications 486	Mariorosario Prist, Luca Cavanini, Sauro Longhi, Andrea Monteriù, Davide Ortenzi, Alessandro Freddi
17:40	18:00	EDU	84	Modelling simulation and control of dynamic platform with several degree of freedom 492	Andrea Bonci, Riccardo De Amicis
18:00	18:20	EDU	113	RoboSim: A Simulated Environment for Programming Modular Robots 498	Kevin Gucwa, Harry Cheng

ThCT2	Thursday September 11	16:40-18:20	Rina Room
Chairs	Enrico Franco		

Interval		Symposium	Paper#	Title	Authors
16:40	17:00	BIO	29	A goniometer-based method for the assessment of gait parameters 505	Elvira Maranesi, Francesco Di Nardo, Giacomo Ghetti, Laura Burattini, Sandro Fioretti
17:00	17:20	BIO	37	Design and Control of Needle Positioner for MRI-guided Laser Ablation of the Liver 509	Enrico Franco, Mihailo Ristic
17:20	17:40	BIO	41	A Virtual-Reality Tracking Game for Use in Robot-Assisted Ankle Rehabilitation 515	Mingming Zhang, Guoli Zhu, Anoop Nandakumar, Shihua Gong, Shane Xie
17:40	18:00	BIO	46	Characterization and Micro-assembly of Electrostatic Actuators for 3-DOF Micromanipulators in Laser Phonomicrosurgery 519	Eakkachai Pengwang, Kanty Rabonorosoa, Micky Rakotondrabe, Nicolas Andreff
18:00	18:20	BIO	51	Minimally-Invasive-Surgery Parallel Robot with Non-Identical Limbs 525	Tanio Tanev

ThCT3	Thursday September 11	16:40-17:40	Europa Room
Chairs	Andra Monteriù		

Interval		Symposium	Paper#	Title	Authors
16:40	17:00	D&V	NO SHOW		
17:00	17:20	D&V	1	Real Time Simulation of a Turbine Bypass Controller 531	Luca Pugi, Carlo Carcasci, Emanuele Galardi, Andrea Rindi, Nicola Lucchesi
17:20	17:40	D&V	62	Considerations on Teaching Digital ASIC Design 537	Andreas Ruhm, Peter Rössler
17:40	18:00	D&M	9	Real-time monitoring and diagnosis of a train door mechatronic system 543	Laurent Cauffriez, Sebastien Grondel
18:00	18:20	D&M	58	Actuator Fault Detection and Isolation System for an Hexacopter 549	Alessandro Freddi, Sauro Longhi, Andrea Monteriù, Mariorosario Prist

FrAT1	Friday September 12	09:00-10:40	Dolce Vita Room
Chairs	Graziano Cerri		

Interval		Symposium	Paper#	Title	Authors
09:00	09:20	SA	43	Static and bifurcation analysis of MEMS arches actuated by electrostatic fringing fields 555	Hassen Ouakad, Mohammad Firaque
09:20	09:40	SA	69	Shape Memory Actuator with Slider and Slot Layout and Single Fan Cooling 561	Alberto Borboni, Rodolfo Faglia
09:40	10:00	SA	71	Ambient Assisted Living Electromagnetic Sensor for Continuous Breathing Monitoring Applied to Movement Analysis: a Preliminary Study 567	Valerio Petrini, Valentina Di Mattia, Alfredo De Leo, Paola Russo, Valter Mariani Primiani, Giovanni Manfredi, Graziano Cerri, Lorenzo Scalise
10:00	10:20	SA	80	Study on Signal Processing of Electro-Hydraulic Actuator for Iterative Control Algorithm 572	Seung Guk Baek, Jong Yoon Choi, Kyeong Ha Lee, Hyungpil Moon, Hyouk Ryeol Choi, Ja Choon Koo
10:20	10:40	SA	124	Real Time Out of Shelf detection using Embedded Sensor Network 578	Emanuele Frontoni, Primo Zingaretti, Adriano Mancini

FrAT2	Friday September 12	09:00-10:40	Rina Room
Chairs	Jia Xu		

Interval		Symposium	Paper#	Title	Authors
09:00	09:20	I&T	17	Runtime Verification Infrastructure for Embedded Linux 584	Roman Beneder, Bernd Glatz, Martin Horauer, Thomas Rauscher
09:20	09:40	I&T	95	A Method for Handling Process Overruns and Underruns in Real-Time Embedded Systems 590	Jia Xu
09:40	10:00	I&T	79	A Cloud-based Integrated Development Environment for Embedded Systems 597	Jürgen Hausladen, Birgit Pohn, Martin Horauer
10:00	10:20	CC	131	GPU Acceleration of Feature Extraction and Matching Algorithms 602	Matteo Marinelli, Adriano Mancini, Primo Zingaretti
10:20	10:40	CC	125	A heuristic approach to evaluate occurrences of products for planogram maintenance 608	Emanuele Frontoni, Marco Contigiani, Giuseppa Ribighini

FrBT1	Friday September 12	11:00-12:40	Dolce Vita Room
Chairs	Adriano Mancini		

Interval		Symposium	Paper#	Title	Authors
11:00	11:20	SA	99	A Real-Time Reliability and Durability Testing Framework 614	Gionata Massi, Gianluca Morganti, Andrea Claudi, Primo Zingaretti
11:20	11:40	SA	85	An Accurate Device for Real-Time Altitude Estimation Using Data Fusion Algorithms 620	Paola Pierleoni, Alberto Belli, Lorenzo Palma, Luca Pernini, Simone Valenti
11:40	12:00	UAV	55	An Essay on Unmanned Aerial Systems Insurance and Risk Assessment 625	Jason Knight, Brendan Smith, Yangquan Chen
12:00	12:20	UAV	106	Multicopter UAV Design Optimization 631	Øyvind Magnussen, Geir Hovland, Morten Ottestad
12:20	12:40	UAV	132	Testing of Cooperative Tasks for Unmanned Aerial and Ground Platforms 637	Artis Gaujens, Alessandro Benini, Adriano Mancini, Sauro Longhi

MESA2014 Symposia Acronyms

Description	Acronym
Advances in Ambient Assisted Living	AAL
Autonomous Systems and Ambient Intelligence	AS
Bio-Mechatronics - Medical Devices & Technologies	BIO
Cloud Computing and Emerging Technologies for Mechatroni	CC
Design and Verification Methodologies for Mechatronic and E	D&V
Diagnosis and Monitoring in Mechatronic Systems	D&M
Embedded Systems Infrastructure and Theory	I&T
Fractional Derivatives and Their Applications	FD
Key Note	KN
Mechatronic and Embedded Systems for Renewable Energy S	RES
Mechatronic and Embedded Technologies in Intelligent Trans	ITS
Mechatronic Control and Electrical Vehicular Systems	EV
Mechatronics and Embedded Systems Applications	APP
Mechatronics and Embedded Systems Education	EDU
Mechatronics for Advanced Manufacturing	AM
Robotics and Mobile Machines	RM
Sensors and Actuators	SA
Small Unmanned Aerial Vehicle Technologies and Application	UAV
Virtual Prototyping in Mechatronics	VP