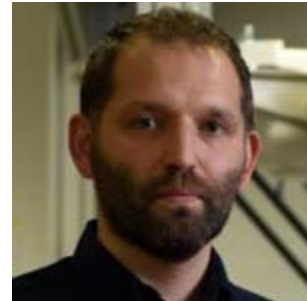


## **CURRICULUM VITAE**

### **Dr. Renato Vidoni**

Nationality: Italian

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### **Current position**

May 2015 – ongoing: Associate Professor in Applied Mechanics for Machinery (SSD ING-IND/13), Faculty of Science and Technology, Free University of Bozen-Bolzano

### **Education**

- 2014 – National Qualification (Abilitazione Scientifica Nazionale) for the role of Associate Professor in the SSD ING-IND/13 – Applied Mechanics for Machinery
- 2009 - PhD in Industrial and Information Engineering, curriculum: Applied Mechanics for Machinery. University of Udine (Italy)
- 2005 - Master Degree in Electronic Engineering, curriculum: Industrial Automation. University of Udine (Italy)

### **Academic experience**

- April 2017: visiting professor at the Chiang May University, Dept. of Industrial Engineering and Dept. of Mechanical Engineering (Chiang May - Thailand)
- April 2011 – April 2015 : Assistant Professor (RTD) in Applied Mechanics for Machinery (SSD ING-IND/13), Faculty of Science and Technology, Free University of Bozen-Bolzano
- July 2013: visiting researcher at the Westfälische Hochschule, Dept. Mechanical Engineering (Bocholt – Germany)
- January 2010 – March 2011: Research fellowship in Mechanics of machines (SSD ING-IND/13) at DIEGM Dip. di Ing. Elettrica Gestionale e Meccanica, University of Udine (I).
- 2009: Research fellowship in Mechanics of machines (SSD ING-IND/13) at DTG-Dip. di tecnica e gestione dei sistemi industriali, University of Padua (I).
- Since December 2008 : Cultore della materia – SSD ING-IND/13 University of Udine
- May - August 2008: Visiting PhD student at the KLT group, University of Murcia (Spain) under the supervision of prof. R. Martinez Bejar.

### **Professional qualification :**

July 2006 : Engineering qualification - abilitazione all'esercizio della professione di Ingegnere

## **Research activity**

Dr. Vidoni research activity is documented in more than 100 scientific works/papers, about 40 in International Journals, 2 book chapters and more than 50 in International or National Conferences.

Dr. Vidoni's research activity, projects and publications deal with the following research fields, all related to the 09/A2 (ING-IND/13) Scientific Sector – Applied Mechanics for Machinery:

- Study, multi-body modeling, experimental validation and control of high-performance automatic machines with rigid and flexible bodies.
- Kinematic study, simulation and trajectory planning of mechanisms and robotic systems
- Study, modeling, simulation and validation of bio-inspired robotic and mechatronic systems
- Field robotics and mechatronics
- Application of Robotics and Mechatronics for advanced automated systems and predictive maintenance (transmissions, building automation applications, medical-surgical).

## **Recent 5 National and international research projects and activities**

Dr. Vidoni has been and is currently involved in scientific projects funded by different and important institutions (e.g. European, National, Regional, Provincial and internal) as principal investigator or team member.

1. “SME 4.0 – Industry 4.0 for SMEs”, European Union's Horizon 2020 RISE programme under the Marie Skłodowska-Curie grant agreement No 734713, PI: Free University of Bolzano; role: team member and responsible for the WP 3.3. and 6.3 – 2017-2021
2. “ARTI - Stability and Control of Articulated Robotic Autonomous Systems for Field Activities”, Free University of Bozen-Bolzano Internal Research Funds (2014-2017)  
Role: PI; type: Free University of Bozen-Bolzano Internal Project
3. "Mimicking the thigmotropic behaviour of climbing plants to design a tactile-based grasping device for the space environment", European Space Agency (ESA) - ACT, Ariadna study n° 12-6402. Role: PI; type: International Project
4. “Development and validation of dynamic models for high-dynamic performance manipulators”, Free University of Bozen-Bolzano Internal Research Funds (call 2011)  
Role: Principal Investigator; type: Free University of Bozen-Bolzano Internal Project
5. “MONALISA : Monitoring key environmental parameters in the Alpine Environment involving science, technology and application”, Partners: Free University of Bozen-Bolzano, Eurac, Laimburg; Role: Team Member of the FUB and responsible for the mechatronic area; type: Provincial Project – 2013-2017

## **Awards**

- 2° prize at “EURON/EUnited Robotics Technology Transfer Award 2009” with the project: “Automation and control of a tunnel digging robotic machine”, A.Gasparetto, R.Vidoni, V.Zanotto.
- 1° prize at “Premio Nicola Chiari per la Migliore Applicazione di Misura e Automazione 2010”, National Instruments Italia, with the project: “Sistema aptico master-slave per neurochirurgia robotizzata basato su NI CompactRIO e NI LabVIEW”, V.Zanotto, A.Gasparetto, A.Rossi, P.Boscariol, A.Lanzutti, R.Vidoni.

### **Editorial and reviewer activity**

- Editorial Board (EB) of JOMAC International Journal of Mechanics and Control - DYNAMICS OF MECHANICAL SYSTEMS.
- Editorial Board (EB) of International Journal of Robotic Engineering
- Review editor : Frontiers in Bionics and Biomimetics journal (Bioengineering and Biotechnology, Robotics and AI)
- Review activity for: IEEE/ASME Transactions on Mechatronics, International Journal of Advanced Manufacturing Technology, Robotics and Autonomous Systems, Mechatronics, Robotica, Robotics and Computer Integrated Manufacturing, Journal of Mechanical Engineering Science, Journal of Intelligent and Robotics Systems, Aerospace Science and Technology, Journal of Bionic Engineering, Engineering Optimization, Proc. of the Institution of Mechanical Engineers, part C: Journal of Mechanical Eng. Science, IEEE access, International journal of advanced robotic systems, Advances in Robotics and Automation, Sensors, BioMedical Engineering OnLine, Robotics and Biomimetics, Frontiers on Mechanical Engineering, Journal of Automobile Engineering Part C: Journal of Mechanical Engineering Science, MDPI Applied Sciences, MDPI Robotics, ...

### **Memberships**

- ASME-American Society of Mechanical Engineers- Professional Member 2014-15
- IfToMM Italy – International Federation for the Promotion of Mechanism and Machine Science, since 2015
- ISBE – International Society of Bionic Engineering, since 2015
- Member of the expert reviewers board of the Natural Sciences and Engineering Research Council of Canada (NSERC).
- Member of the expert reviewers board for the National Center for Science and Technology Evaluation, Ministry of Education and Science, Astana, Republic of Kazakhstan

### *Conference Programme Committee Member/Organizer*

- Member of the Organizing Committee – MEDER2018, Udine (I); IFToMM Italy 2018, Cassino (I);
- co-organizer of the topic “Mobile Robots and Unmanned Ground Vehicles” inner the track “Dynamics, Vibration, and Control” at ASME IMECE 2017, November 2017, Tampa – Florida (USA)
- Member of the International Scientific Committee of the XXXVII CIOSTA & CIGR Section V Conference “Research and Innovation for the Sustainable and Safe Management of Agricultural and Forestry Systems”, 13-15 June 2017, Palermo, Italy
- Member of the International Program committee – della conferenza Mechatronics 2014 – Karlstadt University (Sweden), June 2014

- Member of the International Program – della conferenza IEEE ICAR 2013: International Conference on Advanced Robotics 2013, Montevideo (Uruguay), Novembre 2013
- co-chair e session co-organizer nelle sessioni: “Modeling and Dynamics” e “Trajectories and Motion” alla: ASME 2012: International Design Engineering Technical Conferences & Computers and Information Engineering Conference (IDETC/CIE 2012) - 36th Mechanisms and Robotics Conference.
- chair per la sessione “BioRobotics” alla ICABB 2010 : 1st International Conference on Applied Bionics and Biomechanics.

#### **Participation as speaker at national or international conferences (5):**

- MESA - 12th International Conference on Mechatronic and Embedded Systems and Applications - 2016, Auckland (NZ)
- ECCOMAS Multibody Dynamics 2015, July, 2015, Barcelona, Catalonia, Spain
- ICAR 2013 - 16th INTERNATIONAL CONFERENCE ON ADVANCED ROBOTICS, Montevideo, Uruguay, November 25-29, 2013
- ASME 2012: International Design Engineering Technical Conferences & Computers and Information Engineering Conference (IDETC/CIE 2012) - 36th Mechanisms and Robotics Conference
- IROS 2008: IEEE/RSJ 2008 International Conference on Intelligent Robots and Systems, Sept. 22-26, 2008, Nice – FR

#### **Principal Research cooperations (5):**

- ESTEC-European Space Research & Technology Centre (Noordwijk - The Netherlands),
- Simon Fraser University (Vancouver - Canada),
- Westfälische Hochschule, Dept. Mechanical Engineering (Bocholt – Germany),
- University of Murcia (Murcia - Spain),
- Chiang May University (Thailand).

#### **Experience in Academic Teaching:**

- Courses taught: Machine Design (B.Sc.), Applied Mechanics for Machinery (B.Sc.), Industrial Robotics (M.Sc.), Mechatronics and Robotics (M.Sc.), Functional Mechanical Design for Energy Efficiency (M.Sc.)

#### **Academic responsibilities:**

- 2016 – ongoing : M.Sc. Industrial Mechanical Engineering - course Director – Faculty of Science and Technology – Free University of Bolzano (I)
- 2016 – ongoing : uniBZ representative in the EUCLIDES – European Universities Collaborative Links Developments in Engineering Sciences – network.
- 2012 – Ongoing: Committee Member and Secretary of the PhD Course: “Sustainable Energy and Technologies” – Faculty of Science and Technology – Free University of Bolzano (I)

## **PUBLICATIONS:**

### **Book Chapters**

A. Gasparetto, P. Boscariol, A. Lanzutti, R. Vidoni, "Chapter 1. Path-Planning and Trajectory-Planning Algorithms: a General Overview". In "Motion and Operation Planning of Robotics System: Background and Practical Approaches", Carbone, Gomez-Bravo (eds), Springer, April 2015, ISBN 978-3-319-14704-8.

T. Seidl, R. Vidoni, "Adhesion to flat surfaces: from spiders to stickers", In: Nentwig W (ed): Spider Ecophysiology. Springer, 2013.

### **International indexed (ISI and/or SCOPUS) referred journals**

L Cortese, S Milanovic, R Vidoni, Modelling and understanding the tendril's free-coiling phenomenon with a FEM approach, Applied Bionics and Biomechanics, 2017

P Boscariol, A Gasparetto, R Vidoni, V Zanotto, Closed-form kinematics of a special tunnel digging machine, Journal of Mechanisms and Robotics, J. Mechanisms Robotics 9(3), 031001 (Mar 20, 2017)

B Pavlin, G Pernigotto, F Cappelletti, P Bison, R Vidoni, A Gasparella, "Real-Time Monitoring of Occupants' Thermal Comfort through Infrared Imaging: A Preliminary Study", Buildings 2017, 7, 10; doi:10.3390/buildings7010010

E Shojaei Barjuei, P Boscariol, R Vidoni and A Gasparetto, Robust Control of Three-Dimensional Compliant Mechanisms, Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 138 (10), 101009, 2016

R Vidoni, G Carabin, A Gasparetto, F Mazzetto, "Design, implementation and validation of a stability model for articulated autonomous robotic systems", Robotics and Autonomous Systems (2016), 83, 158-168, DOI: 10.1016/j.robot.2016.05.008

M Bietresato, R Vidoni, A Gasparetto, F Mazzetto, "Evaluation of a Lidar-based 3D-stereoscopic vision system for the automatic monitoring of the canopy vigour status in orchards", Computers and Electronics in Agriculture 124 (2016) 1–13

R Vidoni et al., "Modeling the Vibration of Spatial Flexible Mechanisms through an Equivalent Rigid Link System/Component Mode Synthesis Approach", Journal of Vibration and Control, online September 2015, DOI: 10.1177/1077546315604495

M. Bietresato, G. Carabin, R. Vidoni, F. Mazzetto, A. Gasparetto, A Parametric Approach for Evaluating the Stability of Agricultural Tractors Using Implements during Side-Slope Activities, Contemporary Engineering Sciences, Vol. 8, no. 28, 1289 – 1309, 2015, DOI:10.12988/ces.2015.56185

R Vidoni, T Mimmo, C Pandolfi, "Tendril-based climbing plants to model, simulate and create bio-inspired robotic systems", Journal of Bionic Engineering, 12, 2, 250–262, April 2015 - DOI:10.1016/S1672-6529(14)60117-7

D.T. Matt, E. Rauch, P. Dallasega, R. Vidoni, P. Russo Spena, Synchronisierung von ETO-Fertigung und Baustellenmontage (Synchronisation of ETO-manufacturing and on-site installation), ZWF Zeitschrift für Wirtschaftlichen Fabrikbetrieb, 110 (1/2), 01/2015.

P. Boscariol, A. Gasparetto, R. Vidoni, V. Zanotto, A delayed force reflecting haptic controller for master-slave neurosurgical robots, *Advanced Robotics*, 29, 2, 127-138, 2015 - DOI:10.1080/01691864.2014.977947.

R. Vidoni, M. Bietresato, F. Mazzetto, A. Gasparetto, Evaluation and stability comparison of different vehicle configurations for robotic agricultural operations on side-slopes, *Journal of Biosystems Engineering*, 129, 197-211, 2015 - DOI: 10.1016/j.biosystemseng.2014.10.003.

R. Vidoni, A. Gasparetto, M. Giovagnoni, A method for modeling of three-dimensional flexible mechanisms based on an Equivalent Rigid Link System, *Journal of Vibration and Control*, vol. 20(4), March 2014, pp. 483-500 - DOI: 10.1177/1077546312463745.

R Vidoni, A Gasparetto, M Giovagnoni, Design and implementation of an ERLS-based 3-d dynamic formulation for flexible-link robots, *Robotics and Computer Integrated Manufacturing*, Volume 29, Issue 2, April 2013, Pages 273–282, DOI: 10.1016/j.rcim.2012.07.008.

A Gasparetto, P Boscariol, A Lanzutti, R Vidoni, Trajectory Planning in Robotics, *Mathematics in Computer Science*, 6 (3), pp. 269-279, 2012, DOI: 10.1007/s11786-012-0123-8

A. Gasparetto, A. Lanzutti, R. Vidoni, V. Zanotto, Experimental validation and comparative analysis of optimal time-jerk algorithms for trajectory planning, *Robotics and Computer-Integrated Manufacturing*, Volume 28, Issue 2, April 2012, pp. 164-181, DOI: 10.1016/j.rcim.2011.08.003.

V. Zanotto, P. Boscariol, A. Dalla Via, N. Di Lorenzo, P. Gallina, A. Lanzutti, R. Vidoni, A. Gasparetto, A. Rossi, A master-slave haptic system for neurosurgery, *Applied Bionics and Biomechanics*, 8 (2011), pp- 209-220, DOI: 10.3233/ABB-2011-0026.

A. Gasparetto, A. Lanzutti, R. Vidoni, V. Zanotto, Validation of minimum time-jerk algorithms for trajectory planning of industrial robots, *ASME Journal of Mechanism and Robotics*, Volume 3, Issue 3, 19 July 2011, Article number 031003, DOI:10.1115/1.4004017.

R. Vidoni, F. Garcia-Sanchez, A. Gasparetto, R. Martinez-Bejar, An intelligent framework to manage robotic autonomous agents, *Expert Systems with Applications*, Vol 38(6), June 2011, pp. 7430-7439, DOI:10.1016/j.eswa.2010.12.080.

P. Boscariol, A. Gasparetto, A. Lanzutti, R. Vidoni, V. Zanotto, Experimental validation of minimum time-jerk algorithms for industrial robots, *Journal of Intelligent & Robotic Systems*, Volume 64, Number 2 (2011), 197-219, DOI: 10.1007/s10846-010-9533-5.

R. Vidoni, A. Gasparetto, Efficient force distribution and leg posture for a bio-inspired spider robot, *Robotics and Autonomous Systems* Volume 59, Issue 2, February 2011, Pages 142-150, DOI: 10.1016/j.robot.2010.10.001.

A. Gasparetto, T. Seidl, R. Vidoni, Passive control of attachment in legged space-robots, *Applied Bionics and Biomechanics*, Volume 7, Issue 1, March 2010 , pages 69 - 81, DOI: 10.1080/11762320902940219.

A. Gasparetto, R. Vidoni, V. Zanotto, DFORCE: Delayed FOrce ReferenCE control for master-slave robotic systems, *Mechatronics*, Volume 19, Issue 5, August 2009, Pages 639-646, DOI:10.1016/j.mechatronics.2009.01.010.

A. Gasparetto, R. Vidoni, T. Seidl, A mechanical model for the adhesion of spiders to nominally flat surfaces, *Journal of Bionic Engineering*, Volume 6, June 2009, Pages 135-142, DOI:10.1016/S1672-6529(08)60110-9.

### **International referred journals**

D D'Auria, G Ristorto, F Persia, R Vidoni and F Mazzetto, Development and preliminary tests of a Crop Monitoring Mobile Lab based on a combined use of Optical Sensors, *International Journal of Computer and Software Engineering*, 2016, 1: 103, DOI: 10.15344/ijcse/2016/103

F Mazzetto, R Gallo, R Vidoni, C Bisaglia, Development and characterization tests of a small hydraulic-powered tractor prototype for use in extreme sloped vineyards (2013) *Acta Horticulturae*, 978, pp. 369-376.

F. Mazzetto, M. Bietresato, A. Gasparetto, R. Vidoni, Simulated stability tests of a small articulated tractor designed for extreme-sloped vineyards, *Journal of Agricultural Engineering* 2013, vol XLIV(sI):e133

P. Boscariol, A. Gasparetto, A. Lanzutti, R. Vidoni, V. Zanotto, Neumesy: A special robot for neurosurgery, *Annals of Faculty Engineering Hunedoara – International Journal of Engineering*. Vol. IX-2 pp. 65-72 (2011)

R. Vidoni, A multi agent robotic system for simulation and control of a manufacturing process, *ACTA TECHNICA CORVINIENSIS – Bulletin of Engineering*, Tome IV (Year 2011), ISSN 2067-3809

P. Boscariol, A. Gasparetto, A. Lanzutti, R. Vidoni, V. Zanotto, FLIMHILS: a hardware in the loop simulator of flexible links mechanisms, *Acta Mechanica Slovaca*, vol. 2-A, June 2008, pp. 81-94.

L. Baldessin, A. Gasparetto, R. Vidoni, V. Zanotto, A new kinematic performance index for surgical robots design, *Acta Mechanica Slovaca*, vol. 2-A, June 2008, pp. 55-68.

A. Gasparetto, A. Lanzutti, R. Vidoni, V. Zanotto, New trends in robotic neurosurgery, *Acta Mechanica Slovaca*, vol. 2-A, June 2008, pp. 213-224.

### **Proceedings of international conferences/workshops**

E Wehrle, L Cortese, R Vidoni, Design optimization of planetary gear trains under dynamic constraints and parameter uncertainty, *ECCOMAS Multibody 2017 Prague – June 19 – 22, 2017*

R Vidoni, L Scalera, A Gasparetto, M Giovagnoni, Comparison of Model Order Reduction Techniques for Flexible Multibody Dynamics using an Equivalent Rigid-Link System Approach, *ECCOMAS Multibody 2017 Prague – June 19 – 22, 2017*

G Carabin, I Palomba, D Matt, R Vidoni, Experimental evaluation and comparison of low-cost adaptive mechatronic gripper, *RAAD 2017, Torino, June 21-23, 2017*

RA Rojas, E Rauch, R Vidoni and DT Matt, Enabling Connectivity of Cyber Physical Production Systems: A Conceptual Framework, *Faim 2017: 27th International Conference on Flexible Automation and Intelligent Manufacturing – Modena – June 27-30 2017*

G Carabin, A Gasparetto, F Mazzetto, R Vidoni, Dynamic model and instability evaluation of an articulated mobile agri-robot, *1st IFTomm Italy conference, December 2016*

P. Boscaroli, P. Gallina, A. Gasparetto, M. Giovagnoni, L. Scalera, R. Vidoni, Evolution of a Dynamic Model for Flexible Multibody Systems, 1st IFTomm Italy conference, December 2016

M Bietresato, G Carabin, D D'Auria, R Gallo, G Ristorto, F Mazzetto, R Vidoni, A Gasparetto and L Scalera, A Tracked Mobile Robotic Lab for Monitoring Plants Volume and Health, MESA 2016, Auckland (NZ), 29-31 August.

B Pavlin, R Vidoni, A Gasparella, An occupancy counting mechatronic device based on bio-inspired algorithm for comfort and control optimization in buildings, ICBE2016UNNC, China, 21-24 June, 2016

P Russo Spena, P Holzner, E Rauch, R Vidoni, DT Matt, Requirements for the Design of flexible and changeable manufacturing and Assembly Systems: a SME-survey, 48th CIRP Conference on MANUFACTURING SYSTEMS - CIRP CMS 2015, Procedia CIRP 41 ( 2016 ) 207 – 212

P Boscaroli, R Vidoni, A Gasparetto, Robustness improvement of trajectory planning algorithms, 14th World Congress in Mechanism and Machine Science, Taiwan, 25-30 October, 2015

R Vidoni, G Carabin, A Gasparetto, F Mazzetto, Stability analysis of an articulated agri-robot under different central joint conditions, Robot2015, Lisbona (Portugal), November 2015

M Bietresato, G Carabin, R Vidoni, A Gasparetto, F Mazzetto, Evaluation of the stability of an articulated farm tractor using mounted implements on hillsides, IV International Conference RAGUSA SHWA - Safety Health Welfare in Agriculture Agro – food and Forestry Systems, Ragusa September 8 - 11, 2015

M Bietresato, R Vidoni, A Gasparetto, F Mazzetto, Design and first tests of a vision system to be placed on a tele-operated vehicle for monitoring the canopy vigour status in orchards, First Conference on Proximal Sensing Supporting Precision Agriculture, Sept 6 - 10, 2015, Turin (I)

N Torabpourshiraz, R Vidoni, M Wenske, Design and Implementation of a Diagnostic Device for Fuel Cell Systems Based on an Application Web Server, IEEE Workshop on Environmental, Energy and Structural Monitoring Systems - EESMS 2015, Trento, Italy, 9-10 July, 2015

P Boscaroli, G Carabin, A Gasparetto, N Lever, R Vidoni, Energy-Efficient Point-to-Point Trajectory Generation for Industrial Robotic Machines, ECCOMAS Thematic Conference on Multibody Dynamics, Barcelona, Catalonia, Spain, 29 June-2 July, 2015

M Riedl, R Vidoni, L Cortese, F Mazzetto, DT Matt, POTENTIAL OF CABLE-SUSPENDED PARALLEL ROBOTICS FOR SITE SPECIFIC CROP TREATMENT IN PRECISION HORTICULTURE, AIIA 2015 conference, Naples (I), June 2015

G Carabin, A Gasparetto, F Mazzetto, R Vidoni, A smart real-time anti-overturning mechatronic device for articulated robotic systems operating on side slopes, ARW 2015 – Austrian Robotics Workshop – Klagenfurt (Austria), 7-8 May, 2015

A Gasparetto, R Vidoni, P Boscaroli, Intelligent Automated Process: a Multi Agent Robotic Emulator, ARW 2015 – Austrian Robotics Workshop – Klagenfurt (Austria), 7-8 May, 2015

D Giovanelli, N Giovanelli, P Taboga, E Shojaei Barjuei, P Boscaroli, R Vidoni, A Gasparetto, S Lazzar, A Mechatronic System Mounted on Insole for Analysing Human Gait, ICROM2014 – October, 2014 -Teheran, Iran



M Bietresato, P Boscariol, A Gasparetto, F Mazzetto, R Vidoni, On the design of a Mechatronic Mobile System for Laser Scanner Based Crop Monitoring, Mechatronics 2014 Conference, Karlstad, Sweden, June 16-18, 2014

P Boscariol, A Gasparella, A Gasparetto, R Vidoni, A minimum energy trajectory algorithm for mechatronic systems with regenerative braking, Mechatronics 2014 Conference, Karlstad, Sweden, June 16-18, 2014

E. Shojaei Barjuei, P. Boscariol, A. Gasparetto, M. Giovagnoni, R. Vidoni, Control design for 3D flexible link mechanisms using linearized models, ROMANSY-2014 XX CISM-IFTOMM Symposium. Moscow, 23-26 June, 2014

R Vidoni, T Mimmo, C Pandolfi, SMA bio-robotic mimesis of tendril-based climbing plants: first results, 16th INTERNATIONAL CONFERENCE ON ADVANCED ROBOTICS, Montevideo, Uruguay, November 25-29, 2013

C Pandolfi, T Mimmo, R Vidoni, Climbing Plants, a New Concept for Robotic Grasping, LNCS Lecture Notes in Computer Science, (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics), 8064 LNAI, pp. 418-420, 2013

P Boscariol, A Gasparetto, R Vidoni, Robust trajectory planning for flexible robots, ECCOMAS Multibody Dynamics 2013, Zagreb (Croatia), July, 2013

F Mazzetto, M Bietresato, R Vidoni, Development of a Dynamic Stability Simulator for Articulated and Conventional Tractors Useful for Real-time Safety Devices, Applied Mechanics and Materials Vol. 394 (2013) pp 546-553

P Boscariol, A Gasparella, A Gasparetto, N Lever, D Richiedei, A Trevisani, R Vidoni, Energy Efficiency and smoothness in robotics trajectory planning: numerical simulation and comparison, Proc. of the Austrian Robotics Workshop '13, University of Applied Sciences Technikum Wien, May 2013

R Vidoni, T Mimmo and C Pandolfi, From tendrils to robots: kinematic study for a bio-inspired grasping system, Proc. of the Austrian Robotics Workshop '13, University of Applied Sciences Technikum Wien, May 2013

P Boscariol, A Gasparetto, M Giovagnoni, A K Moosavi, R Vidoni, On the Modeling of Flexible-Link Robots: First Experimental Validation of an ERLS-FEM Dynamic Model, ICM 2013 - IEEE Int. Conference on Mechatronics, Vicenza (ITALY), 2013

P Boscariol, A Gasparetto, R Vidoni, A. Romano, A model-based trajectory planning approach for flexible-link mechanisms, ICM 2013 - IEEE Int. Conference on Mechatronics, Vicenza (ITALY), 2013

Gregoratti L., Goldoni A., Trygub O., Marazzi M., Tormen M., Greci G., Dalzilio S., Vidoni R., Gasparetto A., Large gecko mimetic tapes as new joining technology (2013) European Space Agency, (Special Publication) ESA SP, 705 SP.

R Vidoni, A Gasparetto, M Giovagnoni and P Boscariol, Kinematic and Dynamic Analysis of Flexible-Link Parallel Robots by Means of an ERLS Approach, ASME 2012 International Design Engineering Technical Conferences (IDETC), August 12-15 2012, Chicago, USA

P Boscariol, A Gasparetto and R Vidoni, Jerk-Continuous Trajectories For Cyclic Tasks, ASME 2012 International Design Engineering Technical Conferences (IDETC), August 12-15 2012, Chicago, USA

F Mazzetto, R Gallo, R Vidoni, C Bisaglia, Development and characterization tests of a small hydraulic-powered tractor prototype for use in extreme sloped vineyards, International Conference of Agricultural Engineering (CIGR-Ageng2012). Valencia, 8- 12/7/2012

P Boscariol, A Gasparetto and R Vidoni, Planning continuous-jerk trajectories for industrial manipulators, ASME 2012 11th Biennial Conf. on Engineering System Design and Analysis - ESDA 2012 July 2-4 2012, Nantes, France

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A Gasparetto, R Vidoni, D Pillan, E Saccavini, Automatic path and trajectory planning for robotic spray painting, Proc. of Robotik 2012 - The 7th Conf. in Robotics, Munich (Germany), pp. 211-216, May, 2012

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P Boscariol, A Gasparetto, M Giovagnoni, A Lanzutti, R Vidoni, V Zanotto, Receding horizon control of a compliant manipulator: experimental analysis Proceedings of the 13th IFToMM World Congress in Mechanism and Machine Science, Guanajuato (Mexico), June 19-25, 2011, pp.1-10

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