

# Prof. Alessandro GASPARETTO, PhD Curriculum vitae

Alessandro Gasparetto was born in Rovigo (Italy) on October 26th, 1968.

# **Education**

1986: Classical High School degree.

1992: Master degree in Electronic Engineering at the University of Padua (Italy) with the maximum grade of 110/110 cum laude.

1992: qualification to the Engineering profession

1996: PhD degree in Applied Mechanics at the University of Brescia (Italy)

2003: Master degree in Mathematics at the University of Padua (Italy) with the maximum grade of 110/110 cum laude.

# **Academic career**

1995-2000: Assistant professor of Mechanics Applied to Machines at the Faculty of Engineering of the University of Udine.

2000-2007: Associate professor of Mechanics Applied to Machines at the Faculty of Engineering of the University of Udine.

2007- to date: Full professor of Mechanics Applied to Machines at the Polytechnic Department of Engineering and Architecture of the University of Udine.

# **Academic appointments**

2001- to date: member of the Scientific Council of the PhD course of Industrial and Information Engineering, University of Udine.

2006- 2012: Chairman of the Committee for the Internationalization of the Faculty of Engineering of the University of Udine.

2006- 2012: Delegate of the Dean of the Faculty of Engineering of the University of Udine for the management of the teaching and scientific activities in the campus of Pordenone.

2011-2016: member of the Committee for International Mobility of the University of Udine.

2013-2016: member of the Committee for Scientific Research of the University of Udine.

2013 - 2019: Deputy Rector for Quality Assurance - University of Udine.

2013 – 2019: Chair of the Quality Presidium of the University of Udine.

2014- to date: Mentor of the Faculty of Sciences and Technologies of the Free University of Bolzano-Bozen (Italy).

2017 - 2021: Coordinator of the Section of Electrical, Management and Mechanical Engineering of the Polytechnic Department of Engineering and Architecture of the University of Udine.

2017 – to date: member of the Executive Council and of the Committee for Scientific Research of the Polytechnic Department of Engineering and Architecture of the University of Udine.

2019 – 2021: Deputy Rector for Scientific Research and Technology Transfer – University of Udine.

2019 – 2021: Chair of the Research, of the Patents and of the Spin-off Committees of the University of Udine.

2020 – to date: Deputy Chair of the Istituto di Genomica Applicata (IGA).

2021 – to date: Head of the Polytechnic Department of Engineering and Architecture of the University of Udine.

2022 – to date: member of the Scientific Council of CISM (Centre International des Sciences Mécaniques);

2022 – to date: member of the Supervisory Board of SMACT Società Consortile Per Azioni, representing the University of Udine;

2022 – to date: member of the Council of the Doctoral School of the Polytechnic of Turin;

2022 – to date: member of the Scientific and Industrial Committee of Fiera A&T (Automation and Testing), representing the University of Udine;

2022 – to date: member of the Executive Council of the "Gruppo di Meccanica Applicata" (GMA), representing at the national level the scientific-disciplinary sector ING-IND/13 (Applied Mechanics);

2024 – to date: member of the Committee for the revision of the Constitution of the University of Udine.

# **Teaching appointments**

Prof. Gasparetto teaches or has taught the following courses at the Faculty of Engineering and at the Polytechnic Department of Engineering and Architecture of the University of Udine:

- Mechanics of Vibrations (Master level)
- Robotics (Master level)
- Mechatronics (Master level)
- Dynamics and Vibrations (Master level)
- Fundamentals of Theoretical and Applied Mechanics (Bachelor level)
- Mechanics Applied to Machines (Bachelor level)
- Machine Safety (Master level).

# Research activity and coordination of the research group

The research activity of Prof. Gasparetto has been, and is currently carried out in the following fields:

- Robotics
- Mechatronics
- Industrial Automation
- Modeling and control of mechanical systems
- Vibration control

Prof. Gasparetto is the Head of the Laboratory of Mechatronics and Robotics of the University of Udine, in which the research activity of the group led by Prof. Gasparetto is carried out.

Up to date, Prof. Gasparetto tutored more than 300 Bachelor and Master students, as well as 10 PhD students of the PhD school in Industrial and Information Engineering at the University of Udine. Moreover, he tutors and has tutored several research fellows, also in the framework of his international relations, namely:

### PHD STUDENTS

Adriano Biason

Renato Vidoni

Albano Lanzutti

Paolo Boscariol

Seyed Amir Hossein Kiaeian Moosavi

Mohammad Rabiei

Erfan Shojaei Barjuei

Nicola Giovanelli

Loranzo Scalera

Federico Lozer

### RESEARCH FELLOWS

Paolo Boscariol (3 years)

Ennio Saccavini (1 year)

Albano Lanzutti (1 year)

Luciano Moro (1 year)

Jelena Srnec Novak (2 years)

Giulio Trigatti (1 year)

Maurizio Antoniutti (3 months)

Dario Richiedei (3 months)

Luca Baldessin (3 months)

Carlo Savorgnan (3 months)

Renato Vidoni (1 year)

Albano Lanzutti (1 year)

Seyed Amir Hossein Kiaeian Moosavi (3 months)

Erfan Shojaei Barjuei (3 months)

Lorenzo Scalera (1 year)

Livio Petriccione (2 years)

Eleonora Maset (1 year)

# **Scientific production**

Up to date, prof. Gasparetto is author of 240 scientific publications (see Appendix), namely:

- 85 papers published in international journals
- 2 papers published in Italian journals
- 128 papers published in the proceedings of international conferences
- 14 papers published in the proceedings of Italian conferences
- 7 book chapters
- 1 report.

Up to date, the <u>bibliometric parameters</u> of Prof. Gasparetto are the following:

- number of papers published in Scopus indexed journals = 77
- total number of citations = 3236
- h-index = 28.

(source: Scopus)

A. Gasparetto has been included in the the ranking of the top 2% most quoted and authoritative scientists in the world, published by researchers at Stanford University (https://data.mendeley.com/datasets/btchxktzyw/2).

# Research projects

Coordinator of the research unit of the University of Udine in the following "PRIN" projects (Research Projects of National Relevance), sponsored by the Italian Ministry of the University:

PRIN 2006: "Master Slave Systems for the Active Safety of Operating Machines"

PRIN 2004: "Robotized Intra-brain Neuro-Radiosurgery"

PRIN 2001: "Robots in Medical Environments"

PRIN 1999: "Control of High-Precision Robots Employed in Medical Environments"

Coordinator of the research unit of the University of Udine in the project "Gecko Mimetic Tape as New Joint Technology" (2010-12), led by Elettra Sincrotrone Trieste and sponsored by the ESA (European Space Agency).

Scientific coordinator of the Ariadna project "Attaching mechanism and strategies inspired by the spider's legs" (2007-08), sponsored by the ESA (European Space Agency).

Member of the project 28027-IC-5-2000-1-BE-ERASMUS-EPS-1, sponsored by the European Commission (years 2000-02), on the design of a teaching module about Machine Safety.

Member of the project "The Cultured Engineer", sponsored by the European Commission (years 2005-07) on the design of a teaching module about the philosophy of engineering.

Member of the project "PRAXIS", sponsored by the European Commission (years 2011-14) on the design of an excellence centre for student internships.

Coordinator of the research unit of the University of Udine in the project "Innovative fire doors" (2011-14), POR-FESR project of the Friuli Venezia Giulia region, led by Fincantieri.

Coordinator of the research unit of the University of Udine in the project "Fire panels for naval applications" (2016-18), POR-FESR project of the Friuli Venezia Giulia region, led by Fincantieri.

Coordinator of the research unit of the University of Udine in the project "New materials for fire safety in naval environments" (2018-20), POR-FESR project of the Friuli Venezia Giulia region.

Coordinator of the research unit of the University of Udine in the project "Wind Energy Propulsion Aid for Ships" (2018-21), POR-FESR project of the Friuli Venezia Giulia region.

Moreover, he achieved several research grants and contracts, with public as well as private companies. The total amount of grants achieved up to date is: 1 436 349 Euro.

The table below reports in details all the research projects achieved by prof. Gasparetto.

Type of project	Customer	Title	Period	Amount (Euro)
Research	Italian Ministry of	RIME: Robotics In Medical Environments	2001-2003	38700
Project of	University			

National Interest				
Contract for research activity	Panotec SpA (Castagnole, TV) - Italy	Innovative solutions for high-flexibility devices	2002	1800
Contract for research activity	Serita srl (Oderzo, TV) - Italy	Laboratory tests with vibration sensors	2004	1800
Research Project of National Interest	Italian Ministry of University	Robot for Neuro-Radiosurgery	2005-2006	28600
Contract for research activity	Anodica Trevigiana SpA (Codognè, TV - Italy)	Feasibility analysis of a robotic workcell	2005-2006	4800
Contract for research activity	Casagrande SpA (Fontanafredda, PN) - Italy	Kinematic study and implementation of a controller for a tunnel-digging machine	2005-2006	25200
Contract for research activity	Antoniolli & C. (Sacile, PN) - Italy	Design of an innovative controller for automatic gates	2005-2008	84000
Contract for research activity	Danieli Officine Meccaniche SpA (Buttrio, UD) - Italy	Design of didactic plans for engineers in China, India and Ukraine	2005-2006	4900
Contract for research activity	Savio Macchine Tessili SpA (Pordenone) - Italy	Design of didactic plans for engineers in China	2006	720
Contract for research activity	Electrolux Home Products SpA (Porcia, PN) - Italy	Design of a robotized system for automatic testing of a washing machine	2006-2007	60000
Research Project of National Interest	Italian Ministry of University	Master-slave systems for active safety of operating machines	2007-2009	30000
Contract for research activity	Canadabox Spa (Tamai, PN) - Italy	Design of an innovative device for an industrial cardboard printer	2007-2008	10800
Ariadna Project	European Space Agency (Noordwijk, The Netherlands)	Attaching mechanisms and strategies inspired by the spiders' legs	2007-2008	38000
Contract for research activity	Electrolux Home Products SpA (Porcia, PN) - Italy	HIL control for home appliances	2008-2010	96000
Contract for research activity	CMA Robotics SpA (Pradamano, UD) - Italy	Algorithms for self-programming of painting robots	2009-2010	36600
Contract for research activity	PMI snc (Fiume Veneto, PN) - Italy	Design of an innovative testing machine for brakes	2011	8400
Contract for research activity	Electrolux Home Products SpA (Porcia, PN) - Italy	Mult-agent robotic systems for maintenance of home appliances	2010-2012	120000
ESA Project	Sincrotrone Trieste SCpA (Basovizza, TS) - Italy	Gecko Mimetic Tape as New Joint Technology	2010-2012	60000
POR-FESR Project	Regioe Friuli – Venezia Giulia - Italy	Innovative fire doors	2011-2014	210000
Contract for research activity	Faim srl (Buttrio, UD) - Italy	System for the automatic counting of steel bars	2012	60000
Contract for research activity	Casagrande SpA (Fontanafredda,	System for automatic actuation of a peg- inserting machine	2012	6050

	PN) - Italy			
Contract for research activity	Casagrande SpA (Fontanafredda, PN) - Italy	System for automatic feeding in digging machines	2012	6050
Contract for	Sistec srl (Sacile,	Design of a system for automatic detection of	2012-2013	18150
research activity	PN) - Italy	defects on natural skine	2012 2014	12200
Contract for research activity	I-bedding SpA (Pavia di Udine, UD) -Italy	New systm for pressure equalization in beds	2013-2014	12200
Contract for research activity	FIRST srl (Pordenone) - Italy	Mathematic models for HIL control techniques	2014	6100
Contract for research activity	FIRST srl (Pordenone) - Italy	Innovative virtual tools for rapid design of new components	2015-2016	36600
Contract for research activity	Free University of Bolzano (BZ) - Italy	Monitoring key environmental parameters in the alpine environment involving science, technology and application	2016	12000
Contract for research activity	Huzhou Harbor Technologies Ltd. (Hangzhou, China)	Support to the presentation of the "Thousand Talents Project	2016-2017	3000
POR-FESR Project	Region Friuli – Venezia Giulia - Italy	Innovative fire panels for naval applications	2016-2018	100000
Contract for research activity	Minini srl (Cassacco, UD) - Itly	Innovation project"Future and more than"	2017	18300
Contract for research activity	CMA Robotics SpA (Pradamano, UD) - Italy	Robotized scanning system	2017-2018	36600
Contract for research activity	FIRST srl (Pordenone) - Italy	Validation of logical interfaces of personal devices	2017	6100
POR-FESR Project	Region Friuli – Venezia Giulia - Italy	Wind Energy Propulsion Aid for Ships	2018-2021	132007
POR-FESR Project	Region Friuli – Venezia Giulia - Italy	New materials for fire safety in naval environments	2018-2020	105172
Contract for research activity	Konner srl (Amaro, UD) - Italy	Development of a model to predict the "ground resonance" phenomenon in helicopters	2019	18300
TOTAL				1 436 349

# Activity as a Reviewer, Advisor and Member of Societies

He is or has been a member of the Editorial Board of the journals:

- "Humanoid Robotics"
- "Mathematical Problems in Engineering"
- "Shock and Vibration"
- "Robotica"
- "Applied Sciences"
- "Machines"
- "Advanced Engineering Letters"

He has been Guest Editor for Special Issues of some scientific journals (Robotics, Applied Sciences, ...).

He is or has been a member of the Scientific Board of the journals:

- "Journal of Engineering Science and Technology Review"
- "Annals of the Faculty of Engineering of Hunedoara"
- "Technical Diagnostics".

He has served and/or serves as a reviewer for the following journals:

- "Advanced Robotics"
- "Advances in Engineering Software"
- "Advances in Space Research"
- "Applied Mathematical Modelling"
- "Applied Mathematics and Computation"
- "Asian Journal of Control"
- "Automatica"
- "Automation in Construction"
- "Autosoft Journal"
- "Biomedical Engineering Online"
- "Biosystems Engineering"
- "Computer-Aided Design"
- "Computers and Electronics in Agriculture"
- "Control Engineering Practice"
- "Dynamics of Continuous, Discrete and Impulsive Systems"
- "Engineering Optimization"
- "Engineering with Computers"
- "IEEE Access"
- "IEEE / ASME Transactions on Mechatronics"
- "IEEE Transactions on Automation Science and Engineering"
- "IEEE Transactions on Control Systems Technology"
- "IEEE Transactions on Cybernetics"
- "IEEE Transactions on Robotics"
- "IEEE Transactions on Systems, Man and Cybernetics"
- "IEEE Transactions on Vehicular Technology"
- "Intelligent Service Robotics"
- "International Journal for Numerical Methods in Engineering"
- "International Journal of Advanced Manufacturing Technology"

- "International Journal of Advanced Robotic Systems"
- "International Journal of Computer Applications in Technology"
- "International Journal of Precision Engineering and Manufacturing"
- "International Journal of Robotics Research"
- "International Journal of Solids and Structures"
- "International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems"
- "Journal of Adhesion"
- "Journal of Advanced Robotic Systems"
- "Journal of Agricultural Science and Technology"
- "Journal of Bionic Engineering"
- "Journal of Dynamic Systems, Measurement and Control"
- "Journal of Intelligent and Robotic Systems"
- "Journal of Low Frequency Noise, Vibration and Active Control"
- "Journal of Mechanical Engineering Science"
- "Journal of Precision Engineering and Manufacturing"
- "Journal of Robotics"
- "Journal of Robotics and Computer Integrated Manufacturing"
- "Journal of Sound and Vibration",
- "Journal of Systems and Control Engineering"
- "Journal of Systems Science and Complexity"
- "Journal of Vibration and Control"
- "Journal of Vibration Engineering and Technologies"
- "Journal of Zhejiang University-SCIENCE A"
- "Mathematical and Computer Modelling"
- "Mathematical Problems in Engineering"
- "Mechanical Systems and Signal Processing"
- "Mechanics Research Communications"
- "Meccanica"
- "Mechanism and Machine Theory"
- "Mechatronics"
- "Review of Scientific Instruments"
- "Robotica"
- "Robotics and Autonomous Systems"
- "Robotics and Biomimetics"
- "Robotics and Computer Integrated Manufacturing"
- "Scientific Research and Essay"
- "Strojniški vestnik Journal of Mechanical Engineering"
- "Structural Engineering and Mechanics"
- "World Journal of Modeling and Simulation"

Moreover, he serves and/or has served as a reviewer for several scientific Conferences, mainly sponsored by ASME, IEEE and IFToMM.

In 2013 he received the "Certificate of excellence in reviewing" from the editorial Board of the international journal "Robotics and Computer Integrated Manufacturing".

In 2017 he received the "Outstanding Reviewer Award" from the editorial Board of the international journal "Mechanism and Machine Theory".

Reviewer of scientific projects on behalf of the Italian Ministry of University, and on behalf of several public and private Italian institutions (Region of Piedmont; Province of Trento, District of Mechanical Components, Region of Puglia).

Reviewer of scientific projects in the framework of the PNNR ("Piano Nazionale di Ripresa e Resilienza"), the Italian Recovery Plan.

Expert reviewer for the Natural Sciences and Engineering Research Council of Canada (NSERC).

Expert for the Tenure and Promotion Committee of the Simon Fraser University (Vancouver, Canada) and of the Al Bal'qa Applied University (Amman, Jordan).

Reviewer for the Ministry of Higher Education, Science and Technology of the Republic of Slovenia.

Reviewer for the Czech Science Foundation (Czech Republic).

Reviewer for the National Science Centre (Poland).

Referee of PhD thesis and member of the PhD examination board for several Universities worldwide.

# **Invited lectures**

Invited speaker (keynote lecture) at the International Workshop on Mathematics and Algorithms for Computer-Aided Manufacturing, organized by the Chinese Academy of Sciences (Beijing, October 2011).

Invited speaker (keynote lecture) at the RICH 2012 (Robotics in Cultural Heritage) Conference (Venice, December 2012).

Invited speaker at the International Scientific and Professional Conference - POLITEHNIKA 2023 (Belgrade, Serbia, December 2023).

# **Book editing**

Editor (with Giovanni Boschetti) of the book: "Advances in Italian Mechanism Science. Proceedings of the First International Conference of IFToMM Italy", Volume 47 of the Series "Mechanism and Machine Science", Springer.

Editor (with Marco Ceccarelli) of the book: "Mechanism Design for Robotics. Proceedings of the 4<sup>th</sup> IFToMM Symposium on Mechanism Design for Robotics", Volume 66 of the Series "Mechanism and Machine Science", Springer (2018).

Editor (with Giuseppe Carbone) of the book: "Advances in Italian Mechanism Science. Proceedings of the Second International Conference of IFToMM Italy", Volume 68 of the Series "Mechanism and Machine Science", Springer (2018).

Editor (with Vincenzo Niola) of the book: "Advances in Italian Mechanism Science. Proceedings of the Third International Conference of IFToMM Italy", Volume 68 of the Series "Mechanism and Machine Science", Springer (2020).

Editor (with Giuseppe Quaglia, Victor Petuya and Giuseppe Carbone) of the book: "Proceedings of I4SDG Workshop 2021 - IFToMM for Sustainable Development Goals", Volume 108 of the Series "Mechanism and Machine Science", Springer (2021).

Editor (with Vincenzo Niola, Giuseppe Carbone and Giuseppe Quaglia) of the book: "Advances in Italian Mechanism Science. Proceedings of the Fourth International Conference of IFToMM Italy", Volume XXX of the Series "Mechanism and Machine Science", Springer (2022).

# International collaborations, invitations and awards

Cooperates with several European and extra-European Universities for research and teaching projects, such as:

- Simon Fraser University Vancouver (Canada), KU Leuven (Belgium), Universidad de Murcia (Spain), Universidad de Girona (Spain), Université des Sciences et Technologies de Lille (France), Université Paris-Est Creteil Val de Marne (France), University College Cork (Ireland), Universidade de Aveiro (Portugal), Instituto Politecnico de Porto (Portugal), Universitatea Politehnica Timisoara (Romania), University College Odisee (Belgium), Universidad del Pais Vasco (Spain), Universidad de Vigo (Spain), Universidad Politècnica de Valencia (Spain), Vilnius Gediminas Technical University (Lithuania), Bialystok Technical University (Poland), etc.

Since 1999, has taught monographic courses and seminars at the Universidad de Murcia (Spain) and at the Politehnica Timisoara (Romania).

### **Awards**

Second place at the "2009 EUROP/EURON Robotics Technology Transfer Award" for the project "Automation and control of a tunnel digging robotic machine" (European Robotic Forum, Leuven - Belgium, April 2009).

Recipient of the "Nicola Chiari Award" for the best application in Measurement and Automation 2010), for the project "A haptic Master-Slave System for Robotized Neuro-Surgery" (NI Days, Rome, February 2010).

Recipient of the prize "NI Engineering Impact Awards 2015" for the best application in the category "Advanced Research", for the project "Wearable system for the measurement of the reaction forces during ultra-endurance running competitions" (NI Days, Milan, March 2015).

Recipient of the "2015 Springer Award for the most active member of the IFToMM Permanent Commission on History of Mechanisms and Machine Science" (IFToMM World Congress, Taipei, October 2015).

Recipient of an Award for the paper "Anti-hedonistic mechatronic systems", presented at the First International Conference of IFToMM Italy (IFIT 2016) – Vicenza (Italy), December 2016.

Recipient of an Award for the paper "From the Unimate to the Delta robot: the early decades of Industrial Robotics", presented at the 6<sup>th</sup> International Symposium on History of Machines and Mechanisms (HMM 2018) – Beijing (China), September 2018.

Recipient of an Award for the paper "A framework for improving the energy efficiency and sustainability of collaborative robots", presented at the 2nd IFToMM for Sustainable Development Goals Workshop (I4SDG 2023) – Bilbao (Spain), June 2023.

Recipient of the Gold Best Paper Award for the paper "History of Drawing Robots", presented at the 8<sup>th</sup> International Symposium on History of Machines and Mechanisms (HMM 2024) – Ankara (Turkey), April 2024

# **Patents**

- Italian patent n. 0001372650 (29/03/2010): "Machine and procedure for ground drilling". Authors: Del Tedesco, Gasparetto, Zanotto;
- Italian patent n. 0001381863 (27/09/2010): "Control apparatus and procedure for an automatic opening and closing device". Authors: Antoniolli, Gasparetto, Vidoni, Zanotto;
- Italian patent n. ITUD20100218 (30/05/2012): "Device and procedure for loading and unloading goods to and from vehicles". Authors: Gasparetto, Zanotto, Lanzutti, Boscariol.

# Organizational activity and membership of committees

Member of the Executive Council of IFToMM (International Federation for Promotion of Mechanism and Machine Science), from 2024 until 2027.

President of IFToMM Italy, the Italian branch of the International Federation for Promotion of Mechanism and Machine Science (2017-2023).

Chair (2018-2023) of the Permanent Commission for History of Machine and Mechanism Science (HMMS) of the IFToMM (International Federation for Promotion of Mechanism and Machine Science).

Vice-president of IFToMM Italy, the Italian branch of the International Federation for Promotion of Mechanism and Machine Science (from 2013 to 2017).

Member (since 2014) and Deputy Chair (from 2015 to 2017) of the Permanent Commission for History of Machine and Mechanism Science (HMMS) of the IFToMM (International Federation for Promotion of Mechanism and Machine Science).

Member (since 2018) of the International Scientific Committee of the International Conference in Alpe-Adria Danube Region (RAAD).

Member (since 2016) of the International Scientific Committee of the IFToMM International Symposium on History of Machines and Mechanisms (HMM Symposium).

Member of the Advisory Board of "City Life Magazine" (since 2013).

Member of the Scientific Board of the "SPS/IPC/Drives Italia" Fair in Parma, Italy (since 2012).

Member of the Scientific Board of the magazine "Automazione Oggi" (since 2010).

Member of the Technical-Scientific Committee of "Startcup" (the Italian competition for innovative entrepreneurial ideas) from 2005 to 2010.

Member of the Program Committee of the following conferences:

- 5<sup>th</sup> International Conference on Advanced Manufacturing Systems and Technology (AMST) (1999)
- - 6<sup>th</sup> International Conference on Advanced Manufacturing Systems and Technology (AMST) (2002)
- 5<sup>th</sup> Austrian Robotics Workshop (2015)
- 6<sup>th</sup> Austrian Robotics Workshop (2016)
- 1<sup>st</sup> IFToMM Italy Conference (2016)
- 26<sup>th</sup> RAAD Conference (2017)
- 2° Italian Conference of Robotics and Intelligent Machines (I-RIM 2020)

Member of the International Advisory Committee of the 5th International and 20th National Conference on Machines and Mechanisms (iNaCoMM2021), December 9-11, 2021 – Jabalpur (India).

Member of the International Advisory Committee of MECHATRONICS 2018, the 16th Mechatronics Forum International Conference (2018).

Member of the Scientific Committee of the 24th IFToMM China International Conference on Mechanism and Machine Science & Engineering -CCMMS 2024 (September 20-22, 2024 – Tianjin, China).

Chair of EUCOMES 2024, the 9th European Conference on Mechanism Science (September 18-20, 2024 – Padova, Italy)

Honorary Chair and member of the Scientific Committee di IFIT2024, the 5th IFToMM ITALY Conference (September 11-13, 2024 - Turin, Italy).

Member of the International Scientific Committee of ISIEA 2024, the 3rd International Symposium on Industrial Engineering and Automation (June 19-21, 2024 – Bolzano, Italy).

Member of the International Scientific Committee of the International Scientific and Professional Conference - POLITEHNIKA 2023 (December 15th, 2023 - Belgrade, Serbia).

Member of the Scientific Committee of the 16th edition of the IFToMM World Congress (November 5-10, 2023 – Tokyo, Japan).

Member of the Scientific Committee of I4SDG 2023, The 2nd IFToMM for Sustainable Development Goals Workshop (Bilbao, June 22-23, 2023).

Member of the Scientific Committee of MTM & Robotics 2020, the Joint International Conference of the XIII International Conference on Mechanisms and Mechanical Transmissions (MTM) and the XXIV International Conference on Robotics (Robotics), October 14-16, 2020 – Timisoara (Romania).

Co-chair of I4SDG 2021, The 1st IFToMM for Sustainable Development Goals online Workshop (November 25-26, 2021).

Chair of the Scientific Committee di IFIT2022, the 4th IFToMM ITALY Conference (September 7-9, 2022 - Napoli, Italy).

Chair of the Scientific Committee di IFIT2020, the 3rd IFToMM ITALY Conference (September 9-11, 2020 - Napoli, Italy).

Chair of the Scientific Committee of IFIT2018, the 2nd IFToMM ITALY Conference (November 29-30, 2018 - Cassino, Italy).

General Chair of the 4th IFToMM Symposium on Mechanism Design for Robotics (MEDER 2018), September 11-13, 2018 – Udine (Italy).

Member of the Scientific Committee of IFIT2016, the 1st IFToMM ITALY Conference (December 1-2, 2016 - Vicenza, Italy).

# **APPENDIX – List of publications**

### 1-- A. Gasparetto, A. Rossi

"An Autonomous Vehicle for a Flexible Manufacturing Cell"

Proceedings of the Third IMEKO International Symposium on Measurement and Control in Robotics, Torino, 21-24 settembre 1993

### 2-- A. Gasparetto, A. Rossi, I.A. Robb

"Control System Design and Dynamic Simulation of an Autonomous Vehicle for Factory Automation"

Proceedings of the 20th IEEE International Conference on Industrial Electronics, Control and Instrumentation, Bologna, 5-9 settembre 1994

### 3-- R.Caracciolo, F.Fanton, A.Gasparetto

"Surface Matching for Correlation of Virtual Models: Theory and Application"

Proceedings of the ISMCR'94 (IMEKO Fourth International Symposium on Measurement and Control in Robotics) -Topical Workshop on Virtual Reality, NASA Lindon Johnson Space Center, Houston, 30 novembre - 3 dicembre 1994

### 4-- R.Caracciolo, F.Fanton, A.Gasparetto

"A Low Cost Laser Based System for Mobile Robot Localization"

Proceedings of the Fifth IMEKO International Symposium on Measurement and Control in Robotics, Bratislava, 12-16 giugno 1995

### 5-- F. Fanton, A. Gasparetto, M. Giovagnoni

"A Technique for Position Estimation of an Autonomous Vehicle Using Reflective Beacons"

Proceedings of the Ninth IFToMM World Congress on the Theory of Machines and Mechanisms, Milano, 29 agosto - 2 settembre 1995

### 6-- R. Caracciolo, E. Ceresole, A. Gasparetto, A. Rossi

"A Modular Cell Structure for Robotized Assembly"

Proceedings of the First ECPD International Conference on Advanced Robotics and Intelligent Automation, Atene, 6-8 settembre 1995

# 7-- R.Caracciolo, E.Ceresole, A. Gasparetto, M.Giovagnoni

"Linearizzazione del modello di un attuatore pneumatico controllato in portata"

Atti del XII Congresso Nazionale AIMETA, Napoli, Castel dell'Ovo, 3-6 ottobre 1995

### 8-- R. Caracciolo, F. Fanton, A. Gasparetto, A. Rossi

"A Laser Based 3D Correlation Procedure for the Execution of a Biomedical Task in a Robotized Cell"

Proceedings of the Third Conference on Mechatronics and Robotics, Paderborn, Germany, 4-6 ottobre 1995

### 9-- R. Caracciolo, E. Ceresole, A. Gasparetto, M. Giovagnoni

"Accurate Modelling of a Controlled Pneumatic Actuator with Experimental Validation"

Proceedings of the IUTAM International Symposium on Interaction between Dynamics and Control in Advanced Mechanical Systems, Eindhoven, 22-26 aprile 1996

### 10-- R. Caracciolo, D. Ciscato, A. Gasparetto, A. Rossi

"Design and Implementation of a Mechatronic Device for X-ray Collimation"

Proceedings of the Sixth IMEKO International Symposium on Measurement and Control in Robotics, Bruxelles, 9-11 maggio 1996

### 11-- R. Caracciolo, A. Gasparetto, A. Rossi e S. Santi

"Applicazioni di Robotica in Neurochirurgia"

Atti del IV Seminario GMA di Meccanica Applicata alle Macchine, Assisi, 13-14 giugno 1996

### 12-- R. Caracciolo, A. Gasparetto, M. Giovagnoni and A. Rossi

"A Mechatronic System for Conformal Radiotherapy"

Proceedings of the Scientific Seminar of the 15<sup>th</sup> Working Meeting of the IFToMM Commission A, Polish Academy of Sciences, Warsaw, 22-25 giugno 1996

### 13-- R. Caracciolo, A. Gasparetto

" "RoboNav": A Flexible User Friendly System for Navigation of an Autonomous Vehicle in Factory Environments" Proceedings of the Second ECPD International Conference on Advanced Robotics, Intelligent Automation and Active Systems, Vienna, 26-28 settembre 1996

### 14-- R. Caracciolo, P. Gallina, A. Gasparetto, M. Giovagnoni

"Nella cella di fusione"

Meccanica & Automazione, n. 26, Aprile 1997

### 15 -- R. Caracciolo, P. Gallina, A. Gasparetto, A. Rossi

"A Mechatronic System for Diagnostics of Plastic Products Using Vision"

Proceedings of the 5th Workshop on AC Motor Drives Technology - Elettronica e Meccatronica per l'Automazione Industriale, Vicenza, 2-3 giugno 1997

### 16 -- R. Caracciolo, P. Gallina, A. Gasparetto, A. Rossi

"A Flexible Robotized Cell for Automation of a Press for Cast Products"

Proceedings of the 5th Workshop on AC Motor Drives Technology - Elettronica e Meccatronica per l'Automazione Industriale, Vicenza, 2-3 giugno 1997

### 17-- R. Caracciolo, A. Gasparetto, M. Morandin, S. Santi

"Robotized Stringing of a Drift Chamber in a Virtual Environment"

Proceedings of the ISMCR'97 – Topical Workshop on Virtual Reality and Advanced Man-Machine Interfaces, Tampere (Finlandia), 1-6 giugno 1997

### 18-- R. Caracciolo, P. Gallina, A. Gasparetto, A. Rossi

"A Teleoperated Robot for Servicing inside a RFX Machine"

Proceedings of the Sixth International Workshop on Robotics in Alpe-Adria-Danube Region (RAAD '97), Cassino, 26-28 giugno 1997

### 19A-- R. Caracciolo, P. Gallina, Gasparetto

"Fuzzy Control of a Pneumatic Actuator"

Proceedings of the 5th Symposium on Robot Control SYROCO '97, Nantes (Francia), 3-5 settembre 1997

# 20-- R. Caracciolo, A. Gasparetto, M. Giovagnoni

"An Experimental Method to determine Poisson's Ratio in a Small Beam Subject to Seismic Excitation"

Proceedings of the ASME Design Engineering Technical Conferences DETC'97 / 16th Biennial Conference on Mechanical Vibration and Noise, Sacramento (California, USA), 14-17 settembre 1997

### 21-- R. Caracciolo, A. Gasparetto, M. Giovagnoni

"La misura diretta del modulo di Poisson di materiali viscoelastici. Teoria ed esperimenti"

Atti del XIII Congresso Nazionale AIMETA, Siena, 29 settembre - 3 ottobre 1997

### 22-- A. Gasparetto

"A System Theory Approach to Mode Coupling Chatter in Machining"

ASME Journal of Dynamic Systems, Measurement, and Control - Vol. 120, December 1998

### 23-- R. Caracciolo, P. Gallina, A. Gasparetto

"Automatic Alignment of Workpieces for Robotic Manipulation Using a Conveyor Belt and Fixed Flat Fences"

Proceedings of the 5th International Conference on Advanced Manufacturing Systems and Technology AMST '99, Udine, 3-4 giugno 1999

### 24-- A. Gasparetto, M. Giovagnoni, E. Kuljanic, F. Miani

"Stabilization of a Milling Machine Against Chatter"

Proceedings of the 5th International Conference on Advanced Manufacturing Systems and Technology AMST '99, Udine, 3-4 giugno 1999

### 25-- R. Caracciolo, P. Gallina, A. Gasparetto, A. Rossi

"A New, Transportable and Low Cost Method for Robot Calibration"

Proceedings of the Tenth IFToMM World Congress on the Theory of Machines and Mechanisms, Oulu, Finlandia, 20-24 giugno 1999

### 26--A. Gasparetto, S. Miani

"Application of a Classical PD Regulator to the Control of a Flexible Planar Closed Chain Linkage"

Proceedings of the 7th IEEE Mediterranean Conference on Control and Automation, Haifa, Israele, 28-30 giugno 1999

### 27-- P. Gallina, A. Gasparetto

"A Friction-Based Single-Body Dynamic Model of a Mobile Robot"

Proceedings of the 3rd. World Multiconference on Systemics, Cybernetics and Informatics (SCI'99) and the 5th. International Conference on Information Systems Analysis and Synthesis (ISAS'99), Orlando, USA, 31 luglio-4 agosto 1999

### 28-- P. Gallina, A. Gasparetto, A. Rossi

"A Teleoperated Tracked Vehicle for Inspection Inside a RFX Machine"

Proceedings of the European Control Conference ECC'99, Karlsruhe, Germania, 31 agosto - 3 settembre 1999

### 29--A. Gasparetto, M. Giovagnoni, S. Miani

"A Linearized Dynamic Model of a Flexible-Link Planar Mechanism"

Proceedings of the Asia-Pacific Vibration Conference A-PVC'99, Singapore, 13-15 dicembre 1999

### 30-- P. Gallina, A. Gasparetto

"A Technique to Analytically Formulate and to Solve the 2-Dimensional Constrained Trajectory Planning Problem for a Mobile Robot"

Journal of Intelligent and Robotic Systems, Kluwer Academic Publishers, vol. 27, n. 3, March 2000, pp. 237-262

### 31-- R. Caracciolo, A. Gasparetto, M. Giovagnoni

"Measurement of the Isotropic Dynamic Young's Modulus in a Seismically Excited Cantilever Beam Using a Laser Sensor"

Journal of Sound and Vibration, Academic Press, vol. 231, n. 5, April 2000, pp. 1339-1353

### 32-- R. Caracciolo, A. Gasparetto, A. Rossi, A. Trevisani

"Linear quadratic optimal control of a planar four-link flexible linkage"

Proceedings of the IASTED International Conference on Robotics And Applications 2000, Honolulu (USA), 14-16 agosto 2000

### 33-- R. Caracciolo, A. Gasparetto, M. Giovagnoni, A. Trevisani

"A Comparison of Two Approaches to Rigid-Body Motion and Vibration Control of a Four-Bar Flexible Planar Linkage"

Proceedings of the MOVIC 2000- Fifth International Conference on Motion and Vibration Control, Sydney (Australia), 4-8 dicembre 2000

### 34-- A. Gasparetto

"Eigenvalue Analysis of Mode Coupling Chatter for Machine-Tool Stabilization"

Journal of Vibration and Control, Sage Academic Publishers, vol. 7, n. 2, February 2001, pp. 181-198

### 35-- A. Gasparetto

"Accurate Modelling of a Flexible-Link Planar Mechanism by Means of a Linearized Model in the State-Space Form for Design of a Vibration Controller"

Journal of Sound and Vibration, Academic Press, vol. 240, n. 2, February 2001, pp. 241-262.

### 36—A. Gasparetto, S. Miani

"Modeling and Control of a Rotating Channel"

Proceedings of the 2001 IEEE Joint International Conference on Control Application and International Symposium on Intelligent Control, Mexico City, 5-7 settembre 2001.

### 37-R. Caracciolo, A. Gasparetto, A. Trevisani

"Experimental Validation of a Dynamic Model for Flexible Link Mechanisms"

Proceedings of the ASME 2001 Design Engineering Technical Conferences DETC'01 - 18th Biennial Conference on Mechanical Vibration and Noise, Pittsburgh (USA), 9-12 settembre 2001

### 38-- R. Caracciolo, A. Gasparetto, M. Giovagnoni

"Application of Causality Check and of the Reduced Variables Method for Experimental Determination of Young's Modulus"

Mechanics of Materials, vol. 33, n. 12, December 2001, pp. 693-703

### 39-- A. Gasparetto, G. Rosati

"Design and implementation of a cartesian robot"

Proceedings of the 6th International Conference on Advanced Manufacturing Systems and Technology AMST '02, Udine, 20-21 giugno 2002

### 40-- A. Gasparetto, A. Biason

"Design of a robotic wrist for biomedical applications"

Proceedings of the 6th International Conference on Advanced Manufacturing Systems and Technology AMST '02, Udine, 20-21 giugno 2002

### 41-- P. Gallina, A. Gasparetto, G. Rosati and A. Rossi

"Design of a PID controller for a flexible five-bar closed-chain planar manipulator"

Proceedings of the 14th CISM-IFToMM Symposium on Robotics - RoManSy 2002, Udine, 1-4 luglio 2002

### 42-F. Antoniazzi, P. Gallina, A. Gasparetto and G. Rosati

"Admittance Model Haptic Interaction for Large Workspace Teleoperation"

Proceedings of the 14th CISM-IFToMM Symposium on Robotics - RoManSy 2002, Udine, 1-4 luglio 2002

### 43—S. Filippi, A. Gasparetto, and F. Miani

"Study of the Dynamic Response of a Sinterized Material to a Seismic Excitation for Knowledge Enhancement in an Expert System for Rapid Prototyping"

Proceedings of the MOVIC 2002- Sixth International Conference on Motion and Vibration Control, Saitama (Giappone), 19-23 agosto 2002

### 44-- R. Caracciolo, A. Gasparetto, M. Giovagnoni, A. Trevisani

"On the Control of Flexible Link Manipulators: Results of Two Numerical Investigations - Part I: Mathematical Model and Test Cases"

Proceedings of the 12th International Workshop on Robotics in Alpe-Adria-Danube Region (RAAD '03), Cassino, 7-10 maggio 2003

### 45-- R. Caracciolo, A. Gasparetto, M. Giovagnoni, A. Trevisani

"On the Control of Flexible Link Manipulators: Results of Two Numerical Investigations - Part II: Regulator Design and Numerical Results"

Proceedings of the 12th International Workshop on Robotics in Alpe-Adria-Danube Region (RAAD '03), Cassino, 7-10 maggio 2003

### 46—A. Gasparetto, M. Giovagnoni, G. Rosati, A. Trevisani and V. Zanotto

"Design and construction of a slave robot for telerobotic spine surgery"

Proceedings of the 12th International Workshop on Robotics in Alpe-Adria-Danube Region (RAAD '03), Cassino, 7-10 maggio 2003

### 47— P. Gallina, A. Gasparetto, A. Rossi, A. Trevisani

"Elimination of Chatter Phenomenon in Wood Machining by means of Damping Elements". Proceedings of the 11th IFToMM World Congress in Mechanism and Machine Science, Tianjin (Cina), 19-21 agosto 2003 (posticipato ad aprile 2004)

### 48-- R. Caracciolo, A. Gasparetto, A. Rossi, A. Trevisani

"Linearizzazione di modelli dinamici per meccanismi a membri deformabili"

Atti del XVI Congresso Nazionale AIMETA, Ferrara, 9-12 settembre 2003

### 49— M. Dalla Valle, P. Gallina, A. Gasparetto

"Mirror Synthesis in a Mechatronic System for Superficial Defect Detection"

IEEE/ASME Transactions on Mechatronics, vol. 8, n. 3, September 2003, pp. 309-317

### 50—R. Caracciolo, A. Gasparetto, A. Trevisani, V. Zanotto

"On the Design of State Observers for Flexible Link Mechanisms"

### IASME Transactions, vol. 1, n. 1, January 2004, pp. 125-130

### 51—S. Bortolatto, A. Gasparetto, A. Trevisani, V. Zanotto

"Towards a Model of the Human Hand: Linear System Identification of the Human Grasp" IASME Transactions, vol. 1, n. 1, January 2004, pp. 131-136

### 52—A. Gasparetto, S. Miani

"Dynamic Model of a Rotating Channel Used in the Steel Industry and Implementation of a Controller" Journal of Vibration and Control, Sage Publications, vol. 10, n. 3, March 2004, pp. 423-445

### 53-- R. Caracciolo, A. Gasparetto, M. Giovagnoni

"An experimental technique for complete dynamic characterisation of a viscoelastic material" Journal of Sound and Vibration, Academic Press, vol. 272, n. 3-5, May 2004, pp. 1013-1032.

### 54—A. Gasparetto

"On the Modeling of Flexible-Link Planar Mechanisms: Experimental Validation of an Accurate Dynamic Model" ASME Journal of Dynamic Systems, Measurement and Control, vol. 126, n. 2, June 2004, pp. 365-375

### 55—A. Gasparetto, A. Rossi, A. Trevisani, V. Zanotto

"A Robotic Approach to Stereotactic Radio Surgery"

Proceedings of the 7<sup>th</sup> Biennial ASME Conference on Engineering Systems Design and Analysis (ESDA 2004), Manchester (U.K.), 19-22 luglio 2004

### 56—A. Biason, A. Gasparetto, M. Giovagnoni, A. Trevisani, V. Zanotto

"Design and Implementation of a Control System for a Flexible Planar Manipulator"

Proceedings of the 7<sup>th</sup> Biennial ASME Conference on Engineering Systems Design and Analysis (ESDA 2004), Manchester (U.K.), 19-22 luglio 2004

### 57—E. Alessandri, A. Gasparetto, R. Martinez Béjar, R. Valencia Garcia

"An application of artificial intelligence to medical robotics"

Journal of Intelligent and Robotic Systems, Kluwer Academic Publishers, vol. 41, Dec. 2004, pp. 225-243

### 58 -- R. Valencia Garcia, R. Martinez Béjar, A. Gasparetto

"An intelligent framework for simulating robot-assisted surgical operations"

Expert Systems with Applications, Elsevier Publ., vol. 28, n. 3, Apr. 2005, pp. 425-433

### 59 - A. Biason, G. Boschetti, A. Gasparetto, A. Puppatti and V. Zanotto

"Design of a Robotic Vision System"

Proceedings of the 7th International Conference on Advanced Manufacturing Systems and Technology AMST '05, Udine, 9-10 giugno 2005

### 60 – A. Biason, G. Boschetti, A. Gasparetto, M. Giovagnoni and V. Zanotto

"A Force-Torque Sensor for Applications in Medical Robotics"

Proceedings of the 7th International Conference on Advanced Manufacturing Systems and Technology AMST '05, Udine, 9-10 giugno 2005

### 61 —S. Filippi, A. Gasparetto

"Knowledge Enhancement In Advanced Manufacturing Systems Based On Rapid Prototyping Techniques" Robotica & Management International Journal, vol. 11-1, June 2006, pp. 3-8.

### 62 – A. Gasparetto, V, Zanotto

"Vibration Reduction in a Flexible-Link Mechanism through Synthesis of an Optimal Controller" Meccanica, vol. 41, n. 6, Dec. 2006, pp. 611-622

# 63 – A. Gasparetto

"The Status of the Engineer in Europe in View of Social Changes"

in: "Philosophy in Engineering", Academica Publishers, Aarhus (Denmark), April 2007, pp. 339-352

### 64 – A. Gasparetto, V, Zanotto

"A New Method for Smooth Trajectory Planning of Robot Manipulators"

Mechanism and Machine Theory, vol. 42, April 2007, pp. 455-471

### 65- A. Gasparetto, R. Vidoni, V. Zanotto

"NEUROBUD: a Novel Robot for Neurosurgery"

Proceedings of the 16<sup>th</sup> International Workshop on Robotics in Alpe-Adria Danube Region (RAAD 2007), Ljubljana (Slovenia), June 7-9, 2007.

### 66- A. Gasparetto, R. Vidoni, V. Zanotto

"Design of a Mechatronic System for the Control of a Spatial Mechanism in a Tunnel Digging Machine"

Proceedings of the 16<sup>th</sup> International Workshop on Robotics in Alpe-Adria Danube Region (RAAD 2007), Ljubljana (Slovenia), June 7-9, 2007.

### 67 – A. Gasparetto, R. Vidoni, V. Zanotto

"A Robotic Teleoperation System Based on Force Reflecting and Delayed Reference Control"

Proceedings of the 12th IFToMM World Congress in Mechanism and Machine Science, Besançon (France), June 17-21, 2007

### 68- A. Gasparetto

"I robot nella storia"

Acta Concordium, n.3, luglio 2007, pp. 9-16

### 69- A. Gasparetto, M. Giovagnoni, R. Vidoni, V. Zanotto

"Progetto di un sistema meccatronico per il controllo di un cinematismo spaziale in una macchina per scavo di gallerie" Atti del XVIII Congresso Nazionale AIMETA, Brescia, 11-14 settembre 2007

### 70- A. Gasparetto, R. Vidoni, V. Zanotto

"Controllore ibrido per un sistema robotico master-slave per neurochirurgia"

Atti del XVIII Congresso Nazionale AIMETA, Brescia, 11-14 settembre 2007

### 71- A. Gasparetto, R. Vidoni, V. Zanotto, E. Brusa. T. Seidl

"Attaching Mechanisms and Strategies Inspired by the Spiders' Leg"

Final Report of Ariadna Study nr. 06/6201, in cooperation with the Advanced Concept Team (ACT) of the European Space Agency (ESA), available online on the ACT website: http://www.esa.int/gsp/ACT/ariadna/studies.htm, January 2008.

### 72 – A. Gasparetto, V, Zanotto

"A Technique for Time-Jerk Optimal Planning of Robot Manipulators"

Robotics and Computer Integrated Manufacturing, vol. 24-3, June 2008, pp. 415-426

### 73- 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

# 74- 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

# 75 – G. Boschetti, A. Gasparetto, V. Zanotto

"Singularity analysis and performance indexes for parallel manipulators"

Acta Mechanica Slovaca, vol. 2-A, June 2008, pp. 95-104

### 76- A. Gasparetto, A. Lanzutti, R. Vidoni, V. Zanotto

"New Trends in Robotic Neurosurgery"

Acta Mechanica Slovaca, vol. 2-A, June 2008, pp. 213-224

### 77 – A. Gasparetto, R. Vidoni, V. Zanotto

"Optimal planning of Robotic Trajectories"

Proceedings of the 8th International Conference on Advanced Manufacturing Systems and Technology AMST '08, Udine, June 12-13 2008, pp. 255-265

### 78 – A. Gasparetto, A. Lanzutti, R. Vidoni, V. Zanotto

"An intelligent mechatronic system for safe opening devices"

Proceedings of the 8th International Conference on Advanced Manufacturing Systems and Technology AMST '08, Udine, June 12-13 2008, pp. 617-627

### 79 - A. Gasparetto, M. Giovagnoni, A. Lanzutti, R. Vidoni, V. Zanotto

"Education and Research in Mechatronics at the University of Udine, Italy"

Proceedings of the 9th International Workshop on Research and Education in Mechatronics (REM 2008), Bergamo, September 18-19 2008

### 80- A. Gasparetto, R. Vidoni, T. Seidl

"Kinematic study of the spider locomotor system in a biomimetic perspective"

Proceedings of the IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2008), Nice (France), September 22-26 2008, pp. 3077-3082

### 81 - T. Seidl, R. Vidoni and A. Gasparetto,

"Spider attachment for space applications"

Proceedings of the 9th Intl Bionics Conf. Patents from Nature, Bremen (Germany), November 7-8, 2008

### 82- A. Antoniolli, P. Boscariol, A. Gasparetto, A. Lanzutti, R. Vidoni, V. Zanotto

"Sistema meccatronico intelligente per sistemi di apertura e chiusura automatici"

Atti di NIDays09 - Forum tecnologico sulla progettazione grafica di sistemi, Milano, 25 febbraio 2009

# 83- F. García-Sànchez, R. Vidoni, R. Martínez-Béjar, A. Gasparetto, R. Valencia-García, J. T. Fernàndez-Breis

"Bridging the Gap Between the Logical and the Physical Worlds"

Proceedings of the 7th International Conference on Practical Applications of Agents and Multi-Agent Systems (PAAMS'09), Salamanca (Spain), March 22-27, 2009, pp. 411-420

### 84 – P. Boscariol, A. Gasparetto, V. Zanotto

"Vibrations Reduction in a Flexible Link Mechanism through the Synthesis of an MPC Controller"

Proceedings of the IEEE International Conference in Mechatronics (ICM09), Malaga (Spain), April 14-17, 2009, ISBN 978-1-4244-4195-2.

### 85- A. Gasparetto, R. Vidoni, T. Seidl

"A mechanical model for the adhesion of spiders to nominally flat surfaces" Journal of Bionic Engineering, vol. 6, June 2009, pp. 135-142, ISSN 1672-6529

### 86- A. Gasparetto, R. Vidoni, V. Zanotto

"DFORCE: Delayed FOrce ReferenCE control for master-slave robotic systems" Mechatronics, vol. 19(5), August 2009, pp. 639-646, ISSN 0957-4158

# 87- P. Boscariol, A. Gasparetto, M. Giovagnoni, A. Lanzutti, R. Vidoni, V. Zanotto

"Innovative Control Techniques for Mechatronic Systems"

Atti del XIX Congresso Nazionale AIMETA, Ancona, 14-17 settembre 2009

### 88- P. Boscariol, A. Gasparetto and V. Zanotto

"Active Position and Vibration Control of a Flexible Links Mechanism Using Model-Based Predictive Control" ASME Journal of Dynamic Systems, Measurement, and Control, Vol. 132, n. 1, January 2010, pp. 014506-1/4 (DOI: 10.1115/1.4000658), ISSN: 0022-0434

### 89- P. Boscariol, V. Zanotto, A. Gasparetto, F. Parere, O. Toscano, D. Baggio

"Simulatore Hardware-in-the-Loop per il rapid development nel mondo degli elettrodomestici" Atti di NIDays 2010- Forum tecnologico sulla progettazione grafica di sistemi. Roma, 24 febbraio 2010

### 90- V. Zanotto, A. Gasparetto, P. Boscariol, A. Lanzutti, R. Vidoni, A. Rossi

"Sistema aptico master-slave per neurochirurgia robotizzata basato su NI CompactRIO e NI LabView"

Atti di NIDays 2010- Forum tecnologico sulla progettazione grafica di sistemi. Roma, 24 febbraio 2010

### 91- A. Gasparetto, V. Zanotto

"Toward an Optimal Performance Index for Neurosurgical Robot's Design"

### Robotica Vol. 28, n. 2, March 2010, pp. 279-276, DOI: 10.1017/S026357470999035X. ISSN: 0263-5747

### 92- A. Gasparetto, R. Vidoni, T. Seidl

"Passive control of attachment in legged space-robots"

Applied Bionics and Biomechanics, Volume 7, Issue 1 March 2010, pp. 69-81, DOI: 10.1080/11762320902940219, ISSN: 1176-2322

### 93 - A. Gasparetto, V, Zanotto

"Optimal Trajectory Planning for Industrial Robots"

Advances in Engineering Software, Vol. 41, Issue 4, April 2010, pp. 548-556, DOI: 10.1016/j.advengsoft.2009.11.001, ISSN: 0965-9978

### 94-P. Boscariol, A. Gasparetto, V. Zanotto

"Model Predictive Control of a Flexible Links Mechanism"

Journal of Intelligent and Robotic Systems: Vol. 58, Issue 2, May 2010, pp. 125-147, DOI: 10.1007/s10846-009-9347-5, ISSN: 0921-0296

### 95- P. Boscariol, A. Gasparetto, V. Zanotto

"Trajectory Following and Vibration Control for Flexible-link Manipulators"

Proc. of the 18th CISM-IFToMM Symposium on Robot Design, Dynamics, and Control - Romansy 2010. Udine, July 5-8, 2010

### 96-A. Gasparetto, A. Lanzutti, R. Vidoni, V. Zanotto

"Trajectory planning for manufacturing robots: algorithm definition and experimental results"

Proceedings of the 10th Biennial Conference on Engineering and System Design and Analysis - ESDA2010. Istanbul, July 12-14, 2010

### 97- A. Gasparetto, R. Vidoni, E. Saccavini, D. Pillan

"Optimal path planning for painting robots"

Proceedings of the 10th Biennial Conference on Engineering and System Design and Analysis - ESDA2010. Istanbul, July 12-14, 2010

### 98- P. Boscariol, A. Gasparetto, V. Zanotto

"Design and Experimental Validation of a Hardware-In-the-Loop Simulator for Mechanisms with Link Flexibility" Proceedings of the 10th Biennial Conference on Engineering and System Design and Analysis - ESDA2010. Istanbul, July 12-14, 2010

### 99- A. Gasparetto, R. Vidoni

"Foot-force distribution and leg posture analysis for a spider-inspired climbing robot"

Proceedings of the First International Conference on Applied Bionics and Biomechanics - ICABB 2010. Venezia, October 14-16, 2010

# 100- P. Boscariol, A. Gasparetto, A. Lanzutti, R. Vidoni, V. Zanotto

"NEUMESY: a special robot for neurosurgery"

Annals of the Faculty of Engineering Hunedoara, vol. IX - 2, 2011, pp. 65-72, ISSN: 1584-2665

### 101 - P. Boscariol, A. Gasparetto, A. Lanzutti, R. Vidoni, V. Zanotto

"Sistema di controllo Real-Time per un robot cartesiano"

Atti di NIDays 2011 - Forum tecnologico sulla progettazione grafica di sistemi. Milano, 23 febbraio 2011

### 102 - A. Gasparetto, R. Vidoni

"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

### 103 - A. Gasparetto, R. Vidoni, R. Martinez-Béjar, F. Garcia-Sanchez

"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

# 104 - A. Gasparetto, R. Vidoni, D. Pillan, E. Saccavini

"Optimal trajectory generator for painting robots"

Proceedings of the 9th International Conference on Advanced Manufacturing Systems and Technology AMST '11, Mali Losinj (Croatia), June 16-17 2011, pp. 237-248, ISBN 978-953-6326-64-8

### 105 - P. Boscariol, A. Canderan, A. Gasparetto, R. Vidoni

"An advanced manufacturing system based on MARS (multi agent robotic system)"

Proceedings of the 9th International Conference on Advanced Manufacturing Systems and Technology AMST '11, Mali Losinj (Croatia), June 16-17 2011, pp. 295-306, ISBN 978-953-6326-64-8

### 106 - P. Boscariol, A. Gasparetto, M. Giovagnoni, R. Vidoni

"Experimental validation of an innovative haptic system for surgical robotics"

Proceedings of the 9th International Conference on Advanced Manufacturing Systems and Technology AMST '11, Mali Losinj (Croatia), June 16-17 2011, pp. 271-282, ISBN 978-953-6326-64-8

### 107 - 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

### 108 - R. Vidoni, A. Gasparetto, M. Giovagnoni and P. Boscariol

"A novel 3D equivalent rigid ling system approach for flexible-link mechanisms: formulation and comparison with the floating frame of reference approach"

Proceedings of the ECCOMAS 2011 - Thematic Conference on Multibody Dynamics, Brussels (Belgium), July 4-7 2011, pp. 1-13, ISBN 978-2-8052-0116-5

### 109 - A. Gasparetto A. Lanzutti R. Vidoni V. Zanotto

"Validation of minimum time-jerk algorithms for trajectory planning of industrial robots"

Journal of Mechanism and Robotics (Transactions of the ASME), Volume 3, Issue 3, n. 031003 (12 pages), August 2011, DOI: 10.1115/1.4004017

### 110 - P. Boscariol, A. Gasparetto, V. Zanotto

"Simultaneous position and vibration control system for flexible link mechanisms"

Meccanica, Vol. 46, n. 4, August 2011, pp.723-737, DOI: 10.1007/s11012-010-9333-9

### 111 - R. Vidoni, A. Gasparetto, M. Giovagnoni, P. Boscariol

"Dynamic analysis and simulation of spatial flexible-link manipulators by means of a novel Equivalent Rigid Link System approach"

Atti del XX Congresso Nazionale AIMETA, Bologna, 12-15 settembre 2011, pp. 1-10

112 - V. Zanotto, P. Boscariol, A. Gasparetto, A. Lanzutti, R. Vidoni, N. Di Lorenzo, P. Gallina, A. Dalla Via, A. Rossi "A master-slave haptic system for neurosurgery"

Applied Bionics and Biomechanics, Vol. 8 (2011), pp. 209-220, DOI 10.3233/ABB-2011-0026

### 113 - A. Gasparetto, P. Boscariol, A. Lanzutti, R. Vidoni

"Trajectory planning in Robotics" (INVITED PAPER)

Proceedings of the International Workshop on Mathematics and Algorithms for Computer-Aided Manufacturing, Engineering and Numerical Control (MAMENC), Beijing (China), October 24-26, 2011, pp. 1-13

### 114 - V. Zanotto, A. Gasparetto, A. Lanzutti, P. Boscariol, R. Vidoni

"Experimental validation of minimum time-jerk algorithms for industrial robots"

Journal of Intelligent & Robotic Systems, Volume 64, Number 2, November 2011, pp. 197-219, DOI: 10.1007/s10846-010-9533-5

# 115 - P. Boscariol, A. Gasparetto, V. Zanotto

"A HIL simulator of Flexible-Link Mechanisms"

Journal of Intelligent & Robotic Systems, Volume 64, Number 3-4, December 2011, pp. 427-446, DOI: 10.1007/s10846-011-9547-7

### 116 -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

### 117 - A. Gasparetto, R. Vidoni, D. Pillan, E. Saccavini

"Automatic path and trajectory planning for robotic spray painting"

Proceedings of Robotik 2012 - The 7th Conference in Robotics, Munich (Germany), May 21-22, 2012, pp. 211-216

### 118 - P. Boscariol, A. Gasparetto, R. Vidoni

"Planning continuous-jerk trajectories for industrial manipulators"

Proceedings of ESDA 2012 - The 11th Biennial Conference on Engineering System Design and Analysis, Nantes (France) July 2-4, 2012, pp. 82103 1-10

### 119 - P. Boscariol, A. Gasparetto, M. Giovagnoni, S A H Kiaeian Moosavi, R. Vidoni

"Design and implementation of a simulator for 3D flexible-link serial robots"

Proceedings of ESDA 2012 - The 11th Biennial Conference on Engineering System Design and Analysis, Nantes (France) July 2-4, 2012, pp. 82168\_1-10

# 120 - R. Vidoni, P. Boscariol, A. Gasparetto, M. Giovagnoni

"Kinematic and Dynamic Analysis of Flexible-Link Parallel Robots by Means of an ERLS Approach"

Proceedings of the ASME International Design Engineering Technical Conferences (IDETC), Chicago (USA), August 12-15, 2012, pp. 1-10

### 121 - P. Boscariol, A. Gasparetto, R. Vidoni

"Jerk-Continous Trajectories For Cyclic Tasks"

Proceedings of the ASME International Design Engineering Technical Conferences (IDETC), Chicago (USA), August 12-15, 2012, pp. 1-10

### 122 - A. Gasparetto, P. Boscariol, A. Lanzutti, R. Vidoni

"Trajectory planning in Robotics"

Mathematics in Computer Science, Volume 6, Issue 3, September 2012, pp. 269-279, DOI 10.1007/s11786-012-0123-8

# 123 - L. Gregoratti, A. Goldoni, O. Trygub, M. Marazzi, M. Tormen, G. Grenci, S. Dalzilio, R. Vidoni, A. Gasparetto "Large Gecko Mimetic Tapes As New Joining Technology"

Proceedings of the 12th International Symposium on Materials in the Space Environment (ISMSE-12), September 24-28, 2012, Noordwijk, The Netherlands

### 124 - M. Rabiei, A. Gasparetto

"Design of an architecture for human-robot interaction based on human perception"

Proceedings of the First RSI/ISM International Conference on robotics and Mechatronics (ICRoM 2013), Teheran (Iran), February 13-15, 2013

### 125 - P. Boscariol, A. Gasparetto, R. Vidoni, A. Romano

"A model-based trajectory planning approach for flexible-link mechanisms"

Proc. of the IEEE International Conference on Mechatronics (ICM 2013), Vicenza (Italy), February 27-March 1, 2013, pp. 1-6

### 126 - 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"

Proc. of the IEEE International Conference on Mechatronics (ICM 2013), Vicenza (Italy), February 27-March 1, 2013, pp. 1-5

### 127 - A. Gasparetto , A. K. Moosavi, P. Boscariol and M. Giovagnoni

"Experimental Validation of a Dynamic Model for Lightweight Robots"

International Journal of Advanced Robotic Systems, Volume 10, March 2013, pp. 182:1-7

### 128 - 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, pp. 273-282, http://dx.doi.org/10.1016/j.rcim.2012.07.008

### 129 - 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 (ARW 2013), Vienna (Austria), May 23-24, 2013, pp. 7-12

### 130 - P. Boscariol, A. Gasparetto, R. Vidoni

"Robust trajectory planning for flexible robots"

Proc. of the 2013 ECCOMAS Multibody Dynamics Conference, Zagreb (Croatia), 1-4 July, 2013, pp. 293-294.

### 131 - P. Boscariol, A. Gasparetto

"Model-based trajectory planning for flexible-link mechanisms with bounded jerk"

Robotics and Computer Integrated Manufacturing, Volume 29, Issue 4, August 2013, pp. 90-99, http://dx.doi.org/10.1016/j.rcim.2012.11.003

### 132 - 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, volume 44(s1): e133, 2013, pp.663-668, http://dx.doi.org/10.4081/jae.2013.(s1):e133

### 133 - P. Boscariol, F. De Bona, A. Gasparetto , S. A. H. Kiaeian Moosavi, L. Moro

"Thermal analysis of fire doors for naval applications"

Proc. of the PRADS2013 Conference, Changwon City (Korea), 20-25 October, 2013, pp. 451-456

### 134 - P. Boscariol, F. De Bona, A. Gasparetto, L. Moro

"Thermo-mechanical analysis of a fire door for naval applications"

Proceedings of the International CAE Conference 2013, Pacengo del Garda (Italy), 21-22 October 2013, pp. 1-4

### 135- A Gasparetto, S. Miani

"A system for automatic orientation of items for robotic manipulation purposes"

Tehnička Dijagnostika / Technical Diagnostics, vol. 12, n. 4, 2013, pp. 7-11.

### 136 - R. Vidoni, A. Gasparetto, M. Giovagnoni

"A method for modeling 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

### 137 - M. Rabiei, A. Gasparetto

"A Methodology for Recognition of Emotions Based on Speech Analysis, for Applications to Human-Robot Interaction. An Exploratory Study"

Paladyn, Journal of Behavioral Robotics. Volume 5, Issue 1, ISSN (Online) 2081-4836, April 2014, pp. 1-11, DOI:10.2478/pjbr-2014-0001

# 138 - R. Vidoni, F. Mazzetto, M. Bietresato, A. Gasparetto and P. Boscariol

"On the design of a Mechatronic Mobile System for Laser Scanner Based Crop Monitoring"

Proceedings of the 14th Mechatronics Forum International Conference, Karlstad (Sweden), June 16-18, 2014, pp. 406-412

### 139 - P. Boscariol, A. Gasparella, A. Gasparetto and R. Vidoni

"A minimum energy trajectory algorithm for mechatronic systems with regenerative braking"

Proceedings of the 14th Mechatronics Forum International Conference, Karlstad (Sweden), June 16-18, 2014, pp. 385-390

### 140 - E. Shojaei Barjuei, P. Boscariol, A. Gasparetto, M. Giovagnoni, R. Vidoni

"Control design for 3D flexible link mechanisms using linearized models"

Proceedings of the ROMANSY-2014 XX CISM-IFToMM SYMPOSIUM on Theory and Practice of Robots and Manipulators, Moscow (Russia), 23-26 June, 2014, pp. 181-188

### 141 - Seriani, S., Gallina, P., Gasparetto, A.

"A performance index for planar repetitive workspace robots"

Journal of Mechanisms and Robotics, Volume 6, Issue 3, August 2014, n. 031005, 12 pages

142- D. Giovanelli, N. Giovanelli, P. Taboga, E. Shojaei Barjuei, P. Boscariol, R. Vidoni, A. Gasparetto and S. Lazzer "A Mechatronic System Mounted on Insole for Analyzing Human Gait"

Proceedings of ICRoM 2014- The 2nd International Conference on Robotics and Mechatronics, Tehran (Iran), 15-17 October, 2014, pp. 1-6

### 143- M. Rabiei, A. Gasparetto

"A system for feature classification of emotions based on Speech Analysis; Applications to Human-Robot Interaction" Proceedings of ICRoM 2014- The 2nd International Conference on Robotics and Mechatronics, Tehran (Iran), 15-17 October, 2014, pp. 1-6

### 144 - Moro L., Boscariol P, Srnec Novak J., De Bona F., Gasparetto A.

"Fire doors for naval applications: numerical analysis and innovative solutions"

Proceedings of the CAE Conference 2014, Pacengo del Garda, Verona (Italy), 27-28 October 2014

### 145 - R. Vidoni, M. Bietresato, F. Mazzetto, A. Gasparetto

"Evaluation and stability comparison of different vehicle configurations for robotic agricultural operations on sideslopes"

Biosystems Engineering, Volume 129, January 2015, pp. 197-211

### 146 - P. Boscariol, A. Gasparetto, R. Vidoni, V. Zanotto

"A delayed force-reflecting haptic controller for master-slave neurosurgical robots"

Advanced Robotics, Volume 29, Issue 2, January 2015, pp. 127-138, DOI: 10.1080/01691864.2014.977947

### 147 - P. Boscariol, F. De Bona, A. Gasparetto and L. Moro

"Thermo-mechanical analysis of a fire door for naval applications" Journal of Fire Sciences, vol. 33, n. 2, March 2015, pp. 142-156

### 148 - P. Boscariol, E. Shojaei Barjuei, A. Gasparetto, N. Giovanelli, P. Taboga, S. Lazzer

"Sistema portatile per la misura delle forze sviluppate nelle corse di ultra-endurance"

Atti di NIDays 2015– Forum tecnologico sulla progettazione grafica di sistemi. Milano, 12 marzo 2015, pp. 30-31

### 149 - A. Gasparetto, P. Boscariol, A. Lanzutti, R. Vidoni

"Path Planning and Trajectory Planning Algorithms: A General Overview"

Chapter in book: "Motion and Operation Planning of Robotic Systems. Background and Practical Approaches", G. Carbone, F. Gomez-Bravo Editors, Springer Editions, Series "Mechanism and Machine Science", vol. 29, ISBN 978-3-319-14705-5, DOI 10.1007/978-3-319-14705-5 1, pp. 3-27

# 150 - A. Gasparetto, R. Vidoni and P. Boscariol

"Intelligent Automated Process: a Multi Agent Robotic Emulator"

Proc. of the Austrian Robotics Workshop (ARW 2015), Klagenfurt (Austria), May 7-8 2015, pp. 7-8

### 151 - G. Carabin, A. Gasparetto, F. Mazzetto, R. Vidoni

"A smart real-time anti-overturning mechatronic device for articulated robotic systems operating on side slopes" Proc. of the Austrian Robotics Workshop (ARW 2015), Klagenfurt (Austria), May 7-8 2015, pp. 70-71

### 152 - A. Gasparetto

"History of Robotics: from Ancient Times to the 18th Century"

Proc. of the 2015 IFToMM PC Workshop on History of Mechanisms and Machine Science, St. Petersburg (Russia), May 26-28, 2015, pp. 1-6

### 153 - P. Boscariol, G. Carabin, A. Gasparetto, N. Lever, R. Vidoni

"Energy-Efficient Point-to-Point Trajectory Generation for Industrial Robotic Machines"

Proc. of the ECCOMAS Thematic Conference on Multibody Dynamics, Barcelona (Spain), June 29th-July 2nd 2015, pp.1425-1433

### 154 - E. Shojaei Barjuei, A. Gasparetto

"Predictive control of spatial flexible mechanisms"

International Journal of Mechanics and Control, vol. 16, n. 1 - June 2015, pp.85-96, ISSN: 1590-8844

### 155 - 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"

Proc. of the EAGE Near Surface Geoscience 2015 - 21st European Meeting of Environmental and Engineering Geophysics, Turin, September 6-10 2015, pp. 1-5

### 156 - Bietresato M., Carabin G., Vidoni R., Gasparetto A., Mazzetto F.

"Evaluation of the stability of an articulated farm tractor using mounted implements on hillsides"

Proc. of the International Conference Rural Health & Ragusa SHWA 2015 "Safety Health and Welfare in Agriculture, Agro-food and Forestry Systems", September 8-11, 2015, Lodi (Italy), pp. 267-275

### 157 - R. Vidoni, M. Bietresato, P. Boscariol, G. Carabin, F. Mazzetto, A. Gasparetto

"Study and stability evaluation of a non-conventional Articulated Robotic System for Side-Slope Activities" Atti del XXII Congresso Nazionale AIMETA, Genova, 14-17 settembre 2015, pp. 313 (abstract)

### 158 – P. Boscariol, L. Moro, A. Fanzutto, A. Gasparetto, N. Zucchiatti, D. Dell'Antonia

"Risk management in solitary agricultural work: new technologies for handling emergency and falls from great heights (SHADE)"

Contemporary Engineering Sciences, Vol. 8, no. 27, 2015, pp. 1279 - 1288—Special Issue: "Prospective for safety and health in Agriculture, Forest and Agro-industrial sector", Guest editors: Sirio Cividino and Rino Gubiani. DOI: http://dx.doi.org/10.12988/ces2015.56184

### 159 – 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, 2015, pp. 1289 – 1309- Special Issue: "Prospective for safety and health in Agriculture, Forest and Agro-industrial sector", Guest editors: Sirio Cividino and Rino Gubiani, DOI: http://dx.doi.org/10.12988/ces.2015.56185

### 160 - P. Boscariol R. Vidoni A. Gasparetto

"Robustness improvement of trajectory planning algorithms"

Proc. of the 14th IFToMM World Congress in Mechanism and Machine Science, Taipei (Taiwan) 25-30 October 2015, pp. OS13-024 1-10

### 161 - V. Niola, C. Rossi, S. Savino, G. Carbone, A. Gasparetto, G. Quaglia

"IFToMM Italy Mechanical Hand"

Proc. of the 14th IFToMM World Congress in Mechanism and Machine Science, Taipei (Taiwan) 25-30 October 2015, pp. PS13-005\_1-6

### 162 - Vidoni R., Carabin G., Gasparetto A., Mazzetto F.

"Stability analysis of an articulated agri-robot under different central joint conditions"

Advances in Intelligent Systems and Computing, vol. 417, pp. 335-346 (chapter in book)—also: Proc. of "Robot2015" — the second Iberian Robotics Conference, Lisbon (Portugal), November 19-21 2015

### 163 – M. Bietresato, G. Carabin, R. Vidoni, A. Gasparetto, F. Mazzetto

"Evaluation of a Lidar-based 3D-stereoscopic vision system for crop-monitoring applications"

Computers and Electronics in Agriculture, vol. 124, 2016, pp. 1-13, DOI: http://dx.doi.org/10.1016/j.compag.2016.03.017

### 164 - A. Gasparetto

"Robots in History: Legends and Prototypes from Ancient Times to the Industrial Revolution"

Explorations in the History of Machines and Mechanisms, Vol. 32 of the series History of Mechanism and Machine Science, pp. 39-49, April 2016

Also: Proc. of HMM 2016, International Symposium on History of Machines and Mechanisms, Querétaro (Mexico), June 7-10, 2016

### 165 - P. Boscariol, A. Gasparetto

"Optimal trajectory planning for nonlinear systems: robust and constrained solution"

Robotica, Volume 34, Issue 06, June 2016, pp 1243-1259, DOI: http://dx.doi.org/10.1017/S0263574714002239, Published online: 15 August 2014

### 166 - P. Boscariol, A. Gasparetto

"Vibration suppression of speed-controlled robots with nonlinear control"

Frontiers of Mechanical Engineering, Volume 11, Issue 2, pp 204-212, June 2016, DOI 10.1007/s11465-016-0380-3

167 - M Bietresato, G Carabin, D D'Auria, R Gallo, A. Gasparetto, G Ristorto, F Mazzetto, L. Scalera, R Vidoni "A Tracked Mobile Robotic Lab for Monitoring the Plants Volume and Health"

Proc. of the 12th IEEE/ASME International Conference on Mechatronic and Embedded Systems and Applications, Auckland (New Zealand), August 29-31, 2016, pp. 1-6

### 168 - G. Carabin, A. Gasparetto, F. Mazzetto, R. Vidoni

"Design, implementation and validation of a stability model for articulated autonomous robotic systems" Robotics and Autonomous Systems, Volume 83, September 2016, Pages 158-168

### 169 - E. Shojaei Barjuei, P. Boscariol, R. Vidoni, A. Gasparetto

"Robust Control of Three-Dimensional Compliant Mechanisms"

Journal of Dynamic Systems, Measurement and Control, vol. 138, pp. 101009-1, October 2016.

### 170 - P. Boscariol, A. Gasparetto

"Robust model-based trajectory planning for nonlinear systems"

Journal of Vibration and Control, vol. 22(18), pp. 3904-3915, October 2016, DOI: 10.1177/1077546314566834

### 171 – M. Rabiei, A. Gasparetto

"System and method for recognizing human emotion state based on analysis of speech and facial feature extraction. Applications to human-robot interaction"

Proc. of the 4th RSI International Conference on Robotics and Mechatronics (ICRoM 2016), Tehran (Iran), 26-28 October 2016, pp. 266-271

### 172 – G. Carabin, R. Vidoni, F. Mazzetto, A. Gasparetto

"Dynamic model and instability evaluation of an articulated mobile agri-robot"

Mechanisms and Machine Science, Volume 47, 2017

Also: Proc. of the 1st International Conference of IFToMM ITALY (IFIT 2016), Vicenza (Italy), 1-2 December 2016, pp. 335-343

### 173 – L. Scalera, P. Gallina, A. Gasparetto, M. Giovagnoni

"Anti-hedonistic mechatronic systems"

Mechanisms and Machine Science, Volume 47, 2017

Also: Proc. of the 1st International Conference of IFToMM ITALY (IFIT 2016), Vicenza (Italy), 1-2 December 2016, pp. 543-550

### 174 – P. Boscariol, A. Gasparetto, P. Giovanelli, S. Lazzer, L. Scalera

"Design and implementation of a low-cost mechatronic shoe for biomechanical analysis of the human locomotion" Mechanisms and Machine Science, Volume 47, 2017

Also: Proc. of the 1st International Conference of IFToMM ITALY (IFIT 2016), Vicenza (Italy), 1-2 December 2016, pp. 3-10

### 175 - P. Boscariol, P. Gallina, A. Gasparetto, M. Giovagnoni, L. Scalera, R. Vidoni

"Evolution of a dynamic model for flexible multibody systems"

Mechanisms and Machine Science, Volume 47, 2017

Also: Proc. of the 1st International Conference of IFToMM ITALY (IFIT 2016), Vicenza (Italy), 1-2 December 2016, pp. 533-541

### 176 - P. Boscariol, A. Gasparetto, L. Scalera, R. Vidoni

"Efficient closed-form solution of the kinematics of a tunnel digging machine"

Journal of Mechanisms and Robotics, vol. 9(3), pp. 031001-031001-13, March 2017

JMR-16-1040, doi: 10.1115/1.4035797

### 177 – L. Scalera, S. Seriani, P. Gallina, M. Di Luca and A. Gasparetto

"An experimental setup to test dual-joystick directional responses to vibrotactile stimuli"

Proceedings of IEEE World Haptics Conference 2017, Fürstenfeldbruck (Munich), Germany, June 6-9, 2017, pp. 1-8

### 178 - 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"

Proceedings of the 8th ECCOMAS Thematic Conference on Multibody Dynamics, Prague, June, 19-22, 2017, pp. 1-10

### 179 - G. Ristorto, R. Gallo, A. Gasparetto, L. Scalera, R. Vidoni, F. Mazzetto

"A mobile laboratory for orchard health status monitoring in precision farming"

Chemical Engineering Transactions, Volume 58, July 2017, Pages 661-666

### 180 - R. Vidoni, P. Gallina, P. Boscariol, A. Gasparetto, M. Giovagnoni

"Modeling the Vibration of Spatial Flexible Mechanisms through an Equivalent Rigid Link System/Component Mode Synthesis Approach"

Journal of Vibration and Control. Volume 23, Issue 12, 1 July 2017, Pages 1890-1907, doi: 10.1177/1077546315604495

### 181 - L. Moro, P. Boscariol, F. De Bona, A. Gasparetto, J. Srnec Novak

"Innovative design of fire doors: computational modeling and experimental validation"

Fire Technology, Volume 53, Issue 5, 1 September 2017, Pages 1833-1846, doi: 10.1007/s10694-017-0658-y

### 182 - Vidoni, R.; Carabin, G.; Scalera, L.; Ristorto, G.; Gallo, R.; Gasparetto, A.; Mazzetto, F.

"Experimental Evaluation of the crop monitoring performance of the ByeLab Teleoperated robotic platform"

Proc. of ASME's International Mechanical Engineering Congress and Exposition (IMECE), Tampa (USA), November 3-9, 2017

### 183 - Scalera, L.; Gallina, P.; Gasparetto, A.; Seriani, S.

"Anti-hedonistic machines"

International Journal of Mechanics and Control. Volume 18, Issue 2, December 2017, Pages 9-16

### 184 – L. Scalera, E. Mazzon, P. Gallina and A. Gasparetto

"Airbrush robotic painting system: experimental validation of a colour spray model"

Mechanisms and Machine Science - Volume 49, 2018, pp. 549-556

Proc. of the 26th International Conference on Robotics in Alpe-Adria-Danube Region, RAAD 2017; Turin (Italy), 21-23 June 2017

### 185 - Vidoni R., Scalera L., Gasparetto A.

"3-D ERLS based dynamic formulation for flexible-link robots: Theoretical and numerical comparison between the finite element method and the component mode synthesis approaches"

International Journal of Mechanics and Control, Volume 19, Issue 1, 2018, Pages 39-50

# 186 - Scalera L., Seriani S., Gallina P., Di Luca M., Gasparetto A.

"Experimental Evaluation of Vibrotactile Training Mappings for Dual-Joystick Directional Guidance"

Lecture Notes in Computer Science - Proc. of the 11th International Conference on Haptics: Science, Technology, and Applications, EuroHaptics 2018; Pisa, Italy; 13 - 16 June 2018, pp. 575-586

### 187 - S. Seriani, P. Gallina, L. Scalera, A. Gasparetto, A. Wedler

"A new mechanism for the deployment of modular solar arrays: kinematic and static analysis"

Proceedings of ARK 2018, 16th Int. Symposium on Advances in Robot Kinematics, July 01-05, 2018, Bologna, Italy.

### 188 - Scalera L., Gallina P., Seriani S., Gasparetto A.

"Cable-Based Robotic Crane (CBRC): Design and Implementation of Overhead Traveling Cranes Based on Variable Radius Drums"

IEEE Transactions on Robotics, Vol. 34(2), pp. 474-485, 2018

# 189 - Scalera L., Seriani S., Gallina P., Di Luca M., Gasparetto A.

"An experimental setup to test dual-joystick directional responses to vibrotactile stimuli"

IEEE Transactions on Haptics, Volume 11, Issue 3, July/September 2018, Pages 378-387

### 190 - L. Scalera, S. Seriani, A. Gasparetto, P. Gallina

Busker Robot: a robotic painting system for rendering images into watercolour artworks

Proceedings of the 4th IFToMM Symposium on Mechanism Design for Robotics, MEDER 2018, September 11-13, 2018, Udine, Italy, pp. 1-8

### 191 - S. Seriani, L. Scalera, A. Gasparetto, P. Gallina

Preloaded structures for space exploration vehicles

Proceedings of the 4th IFToMM Symposium on Mechanism Design for Robotics, MEDER 2018, September 11-13, 2018, Udine, Italy, pp. 129-137

### 192 - G. Trigatti, P. Boscariol, L. Scalera, D. Pillan, A. Gasparetto

A look-ahead trajectory planning algorithm for spray painting robots with non-spherical wrists

Proceedings of the 4th IFToMM Symposium on Mechanism Design for Robotics, MEDER 2018, September 11-13, 2018, Udine, Italy, pp. 235-242

### 193 - A. Gasparetto, L. Scalera

From the Unimate to the Delta robot: the early decades of Industrial Robotics

Proceedings of the 6th International Symposium on History of Machines and Mechanisms, September 26-28, 2018, Beijing, China. Also in: History of Mechanism and Machine Science, Volume 37, 2019, Pages 284-295

### 194 - Trigatti G., Boscariol P., Scalera L., Pillan D., Gasparetto A.

"A new path-constrained trajectory planning strategy for spray painting robots"

International Journal of Advanced Manufacturing Technology, Volume 98, Issue 9-12, 1 October 2018, Pages 2287-2296

### 195 - A. Gasparetto, M. Ceccarelli

"The Arsenal of Venice: the first "industrial" factory in history"

Proceedings of the 2nd IFToMM Italy Conference, IFIT 2018, November 29-30, 2018, Cassino, Italy, pp.3-11

### 196 - S. Seriani, L. Scalera, A. Gasparetto, P. Gallina,

A new family of magnetic adhesion based wall climbing robots

Proceedings of the 2nd IFToMM Italy Conference, IFIT 2018, November 29-30, 2018, Cassino, Italy, pp.223-230

### 197 - A. Gasparetto, L. Scalera

"A Brief History of Industrial Robotics in the 20th Century"

Advances in Historical Studies, 2019, n 8, pp. 24-35, February 2019

### 198 - L. Scalera, S. Seriani, A. Gasparetto, P. Gallina

"Non-Photorealistic Rendering Techniques for Artistic Robotic Painting"

Robotics, 8(1), 10; https://doi.org/10.3390/robotics8010010, pp. 1-16, February 2019

### 199 - S. Seriani, L. Scalera, M. Caruso, A. Gasparetto, P. Gallina

"Upside-Down Robots: Modeling and Experimental Validation of Magnetic-Adhesion Mobile Systems"

Robotics, 8(2), 41; https://doi.org/10.3390/robotics8020041, pp. 1-20, May 2019

### 200 - Boscariol P., Scalera L., Gasparetto A.

"Task-Dependent Energetic Analysis of a 3 d.o.f. Industrial Manipulator"

In: Berns K., Görges D. (eds) Advances in Service and Industrial Robotics. Proc. of 28th International Conference on Robotics in Alpe-Adria-Danube Region. RAAD 2019; Kaiserslautern; Germany; 19-21 June 2019. Also in: Advances in Intelligent Systems and Computing, vol 980, Springer, pp 162-169

# 201 - Palomba I., Wehrle E., Vidoni R., Gasparetto A.

"Parametric eigenvalue analysis for flexible multibody systems"

In: Uhl T. (eds) Advances in Mechanism and Machine Science. Proc. of the 15<sup>th</sup> IFToMM World Congress 2019, Krakow (Poland), June 30<sup>th</sup>-July 4<sup>th</sup>, 2019. Also in: Mechanisms and Machine Science, vol 73, Springer, pp. 4117-4126

# 202 - L. Scalera, I. Palomba, E. Wehrle, A. Gasparetto, R. Vidoni

"Natural Motion for Energy Saving in Robotic and Mechatronic Systems"

Applied Sciences, 9(17), 3516; https://doi.org/10.3390/app9173516, pp. 1-26, August 2019

### 203 - L. Scalera, S. Seriani, A. Gasparetto, P. Gallina

"Watercolour Robotic Painting: a Novel Automatic System for Artistic Rendering"

Journal of Intelligent and Robotic Systems: Theory and Applications, vol. 95, pp. 871-886, September 2019, DOI:10.1007/s10846-018-0937-y

### 204 - F. Vidussi, P. Boscariol, L. Scalera, A. Gasparetto

"Energetic analysis of industrial robots for pick-and-place operations"

Proceedings of the Second International Jc-IFToMM Symposium, Kanagawa, Japan, October 26, 2019, pp. 1-8

205 - Scalera, L., Boscariol, P., Carabin, G., Vidoni, R., Gasparetto, A.

"Enhancing energy efficiency of a 4-DOF parallel robot through task-related analysis"

Machines 2020, 8(1), 10, pp. 1-14; https://doi.org/10.3390/machines8010010

206 - Scalera L., Carabin G., Vidoni R., Gasparetto A.

"Minimum-Energy Trajectory Planning for Industrial Robotic Applications: Analytical Model and Experimental Results".

Proc. of RAAD 2020, Poitiers (France). Also in: Zeghloul S., Laribi M., Sandoval Arevalo J. (eds) Advances in Service and Industrial Robotics. Mechanisms and Machine Science, vol 84, pp.334-342. Springer, Cham. https://doi.org/10.1007/978-3-030-48989-2 36

### 207 - Ceccarelli M., Gasparetto A.

"Cesare Rossi (1955-2017)"

In: Ceccarelli M., Fang Y. (eds) Distinguished Figures in Mechanism and Machine Science. MESROB 2018. History of Mechanism and Machine Science, vol 38, pp. 115-125. Springer, Cham. https://doi.org/10.1007/978-3-030-32398-1 7

### 208 - L. Scalera, A. Gasparetto and D. Zanotto,

"Design and Experimental Validation of a 3-DOF Underactuated Pendulum-Like Robot,"

IEEE/ASME Transactions on Mechatronics, vol. 25, no. 1, pp. 217-228, Feb. 2020, doi: 10.1109/TMECH.2019.2947915.

### 209 - Scalera L., Boscariol P., Carabin G., Vidoni R., Gasparetto A.

"Optimal Task Placement for Energy Minimization in a Parallel Manipulator"

Proc. of MTM & Robotics 2020, October 2020, Timisoara (Romania)

Also in: Lovasz EC., Maniu I., Doroftei I., Ivanescu M., Gruescu CM. (eds) New Advances in Mechanisms, Mechanical Transmissions and Robotics. MTM&Robotics 2020. Mechanisms and Machine Science, vol 88, pp. 12-22. Springer, Cham. https://doi.org/10.1007/978-3-030-60076-1\_2

### 210 - Comino S., Gasparetto A.

"The Bolognese Silk Mill: One of the Earliest Examples of Factory System"

Proc. of IFIT 2020 - The Third Int. Conference of IFToMM Italy, September 9-10, 2020 (online)

Also in: Niola V., Gasparetto A. (eds) Advances in Italian Mechanism Science. IFToMM ITALY 2020. Mechanisms and Machine Science, vol 91, pp. 3-10. Springer, Cham. https://doi.org/10.1007/978-3-030-55807-9 1

### 211 - Scalera L., Seriani S., Gasparetto A., Gallina P.

"A Novel Robotic System for Painting with Eyes"

Proc. of IFIT 2020 - The Third Int. Conference of IFToMM Italy, September 9-10, 2020 (online)

Also in: Niola V., Gasparetto A. (eds) Advances in Italian Mechanism Science. IFToMM ITALY 2020. Mechanisms and Machine Science, vol 91, pp. 191-199. Springer, Cham. https://doi.org/10.1007/978-3-030-55807-9\_22

### 212 - Comino, S. and Gasparetto, A.

"Silk Mills in the Early Modern Italy".

Advances in Historical Studies, 9, 284-294. doi: 10.4236/ahs.2020.95022, 2020.

### 213 - Boscariol, P.; Scalera, L.; Gasparetto, A.

"Nonlinear control of multibody flexible mechanisms: a model-free approach"

Applied Sciences, Volume 11, Issue 3, Pages 1-14, February 2021, Article number 1082, https://doi.org/10.3390/app11031082

### 214 - Vidussi, F., Boscariol, P., Scalera, L., and Gasparetto, A.

"Local and Trajectory-Based Indexes for Task-Related Energetic Performance Optimization of Robotic Manipulators." ASME. Journal of Mechanisms and Robotics, April 2021; 13(2): 021018. https://doi.org/10.1115/1.4049972

215 - Scalera, L.; Seriani, S.; Gallina, P.; Lentini, M.; Gasparetto, A.

"Human-Robot Interaction through Eye Tracking for Artistic Drawing"

Robotics, Volume 10, Issue 2, pages 1-14, June 2021 Article number 54, https://doi.org/10.3390/robotics10020054

216 - Gallina P., Scuor N., Nolich M., Scalera L., Gasparetto A., Seriani S.

"A Proof of Concept of Self Replicating Robots for Space Settlements"

Proc. of the 1st Workshop IFToMM for Sustainable Development Goals - I4SDG 2021, held online, 25-26 November 2021, Pages 231 - 240

217 - Maset E., Scalera L., Beinat A., Cazorzi F., Crosilla F., Fusiello A., Gasparetto A.

"Preliminary Comparison Between Handheld and Mobile Robotic Mapping Systems"

Proc. of the 1st Workshop IFToMM for Sustainable Development Goals - I4SDG 2021, held online, 25-26 November 2021, Pages 290 - 298

218 - Scalera L., Maset E., Seriani S., Gasparetto A., Gallina P.

"Performance evaluation of a robotic architecture for drawing with eyes"

International Journal of Mechanics and Control, Volume 22, Issue 2, Pages 53 – 60, December 2021

### 219 - Gasparetto, A.; Ceccarelli, M.

"Recent Advances and Challenges in the IFToMM PC for History of MMS"

Proc. of the 7th International Symposium on History of Machines and Mechanisms (HMM 2022), Granada and Jaén (Spain), 28-30 April 2022, pp. 10-23

220 - Tiozzo Fasiolo, D.; Scalera, L.; Maset, E.; Gasparetto, A.

"Recent Trends in Mobile Robotics for 3D Mapping in Agriculture"

Proc. of the 31st International Conference on Robotics in Alpe-Adria-Danube Region (RAAD 2022), Klagenfurt (Austria), 8-10 June 2022, pp. 428-435

221 - Boscariol, P.; Scalera, L.; Gasparetto, A.

"Improving the Efficiency of Closed-Chain Robotic Systems by the Trajectory Energy Index"

Proc. of the 4th International Conference of IFToMM Italy (IFIT 2022), Naples, 7-9 September 2022, pp. 612-620

222 - Scalera, L.; Giusti, A.; Vidoni, R.; Gasparetto, A.

"Online Planning of Path-Consistent Stop Trajectories for Collaborative Robotics"

Proc. of the 4th International Conference of IFToMM Italy (IFIT 2022), Naples, 7-9 September 2022, pp. 693-701

223 - Tiozzo Fasiolo, D.; Scalera, L.; Maset, E.; Gasparetto, A.

"Experimental Evaluation and Comparison of LiDAR SLAM Algorithms for Mobile Robotics"

Proc. of the 4th International Conference of IFToMM Italy (IFIT 2022), Naples, 7-9 September 2022, pp. 795-803

224 - Scalera, L.; Canever, G.; Seriani, S.; Gasparetto, A.; Gallina, P.

"Robotic Sponge and Watercolor Painting Based on Image-Processing and Contour-Filling Algorithms" Actuators, 2022, 11(2), 62; https://doi.org/10.3390/act11020062

225 - Tiozzo Fasiolo, D; Maset, E; Scalera, L; Macaulay, S. O.; Gasparetto, A; Fusiello, A

"Combining Lidar Slam And Deep Learning-Based People Detection For Autonomous Indoor Mapping In A Crowded Environment"

Int. Arch. Photogramm. Remote Sens. Spatial Inf. Sci., XLIII-B1-2022, 447–452, 2022. Proc. of the 24<sup>th</sup> ISPRS Congress, Nice (France), 6-11 June 2022.

225 - Maset, E.; Scalera, L.; Beinat, A.; Visintini, D.; Gasparetto, A.

"Performance Investigation and Repeatability Assessment of a Mobile Robotic System for 3D Mapping" Robotics 2022, 11(3), 54; https://doi.org/10.3390/robotics11030054

226 - Scalera, L.; Giusti, A.; Vidoni, R.; Gasparetto, A.

"Enhancing fluency and productivity in human-robot collaboration through online scaling of dynamic safety zones" International Journal of Advanced Manufacturing Technologies – Vol 121, pp. 6783–6798 (2022). https://doi.org/10.1007/s00170-022-09781-1

227 - Boscariol, P.; Gasparetto, A.; Scalera, L.

"Path Planning for Special Robotic Operations"

In: Carbone, G., Laribi, M.A. (eds) Robot Design. Mechanisms and Machine Science, vol 123. Springer, Cham. https://doi.org/10.1007/978-3-031-11128-0 4

228 - Scalera, L.; Nainer, C.; Giusti, A. and Gasparetto, A.

"Robust safety zones for manipulators with uncertain dynamics in collaborative robotics", International Journal of Computer Integrated Manufacturing, DOI: 10.1080/0951192X.2023.2258111

229 – Martinez Béjar, R.; Garcia Gonzalez M.S.; Scalera, L.; Gasparetto, A.

"A modelling approach to privacy and safety issues in cyber-physical systems"

In: Exploring Cyber Criminals and Data Privacy Measures, pp. 241-252, IGI Global Eds., https://dx.doi.org/10.4018/978-1-6684-8422-7.ch012

230 - Lozer F.; Scalera L.; Boscariol P.; Gasparetto A.

"An Experimental Setup to Test Time-Jerk Optimal Trajectories for Robotic Manipulators"

Proc. of the 32nd International Conference on Robotics in Alpe-Adria-Danube Region, RAAD 2023, Bled (Slovenia), 14-16 June 2023. Also in: Mechanism and Machine Science, vol. 135, pp. 309-316.

231 - Boscariol P.; Clochiatti E.; Scalera L.; Gasparetto A.

"A Framework for Improving the Energy Efficiency and Sustainability of Collaborative Robots"

Proc. of the 2nd IFToMM Workshop for Sustainable Development Goals, I4SDG 2023, Bilbao (Spain), June 22-23, 2023. Also in: Mechanism and Machine Science, vol. 134, pp. 47-54.

232 - Fabris G.; Scalera L.; Gasparetto A.

"An Interactive Collaborative Robotic System to Play Italian Checkers"

Proc. of the 16th International Federation of Theory of Machines and Mechanisms World Congress, IFToMM WC 2023, Tokyo (Japan), November 5-10, 2023. Also in: Mechanism and Machine Science, vol. 148, pp. 74-84.

233 – Scalera, L.; Seriani, S.; Gasparetto, A.; Gallina, P.

"An eye tracking approach for inclusive robotic drawing"

In: Atti del Convegno DAI – Il Disegno per l'accessibilità e l'inclusione, Udine, 1-2 dicembre 2023

234 - Gasparetto A.; Grimaz, S.

"The ESPeRT project: a "polytechnic" strategic plan focused on sustainability"

Proc. of the International Scientific and Professional Conference "Politehnika 2023", Belgrade (Serbia), December 15th, 2023

235 – Tiozzo Fasiolo D.; Scalera L.; Maset, E.; Gasparetto, A.

"Towards autonomous mapping in agriculture: a review of supportive technologies for ground robotics" Robotics and Autonomous Systems, 169 (2023), 104514, ISSN 0921-8890,

https://doi.org/10.1016/j.robot.2023.104514. pp. 1-34.

236 - Fabris, G.; Scalera, L.; Gasparetto, A.

"Playing Checkers with an Intelligent and Collaborative Robotic System"

Robotics 2024, 13, 4, pp. 1-17

https://doi.org/10.3390/ robotics13010004

237 - Fabris, G.; Scalera, L.; Gasparetto, A.

"Dynamic modelling and energy-efficiency optimization in a 3-DOF parallel robot"

The International Journal of Advanced Manufacturing Technology, 132 (5-6), pp. 2677-2699, 2024 https://dx.doi.org/10.1007/s00170-024-13496-w

238 - Scalera, L.; Lozer, F.; Giusti, A.; Gasparetto, A

"An experimental evaluation of robot-stopping approaches for improving fluency in collaborative robotics" Robotica, 2024, pp. 1-17

doi:10.1017/S0263574724000262

239 - Scalera, L.; Gasparetto, A.

"History of Drawing Robots"

Proc. of the 8th IFToMM International Symposium on History of Machines and Mechanisms (HMM 2024), Ankara (Turkey), April 18-20, 2024 (also in Explorations in the History and Heritage of Machines and Mechanisms, Volume 47, pp. 3-17)

240 - Cooconcelli, M.; Ceccarelli, M.; Gasparetto, A

"Editorial Activity of the IFToMM-PC for the History of Mechanism and Machine Science in the Period 2018–2023" Proc. of the 8th IFToMM International Symposium on History of Machines and Mechanisms (HMM 2024), Ankara (Turkey), April 18-20, 2024 (also in Explorations in the History and Heritage of Machines and Mechanisms, Volume 47, pp. 348-359)