

Curriculum Vitae et Studiorum di Pierluigi Rea

Short CV

Pierluigi Rea is Associate Professor at Dept. of Mechanical, Chemical and Materials Engineering (DIMCM) at University of Cagliari for the courses of Mechatronics and Industrial Robotics.

He got in 2002 the Master Degree in Mechanical Engineering at the University of Cassino by discussing a thesis on the Experimental Analysis of a PWM Modulated Digital Valve. He got the Ph.D. in Civil and Mechanical Engineering at University of Cassino defending his Ph.D. thesis titled "Mechatronic Design of a Robotic Hand with Pneumatic Actuation" on March, 2007.

From 2017 to 2021 he has been proposal engineer at STAR s.r.l. a company of Icapgroup, his main role was to work directly with customers to understand their processes, recognize and understand the customer needs and quickly develop the best solutions for their requirements.

From 2014 to 2016 he has been Assistant Researcher for the courses of Fluid Mechanics, Design of Mechanisms, Mechanics of Actuation. Moreover, he has been member of the Exams Committee for the above-mentioned courses and additionally for Mechanics of Machinery and Mechanisms, Fluid Automation and Fluid Servosystems. From 2007 to 2013 he has been Assistant Professor by contract at the University of Cassino for the Mechanical design disciplines at the Dept. of Civil and Mechanical Engineering. He has been Professor by Contract at the University "Guglielmo Marconi" in Rome for the course of Bioengineering from the year 2008 to 2011.

Since 2016, he serves as Associate Editor, section "Mechatronics: Robotics and Automation" at the journal "International Journal of Mechatronics and applied Mechanics".

In 2016, he has been member of the Scientific Committee of the "Safety Day", promotion of safety in agriculture as part of the research agreement (DICeM / BRIC-INAIL) "PROMOSIC-Protection of Operators of Operational Machines from Crushing, Entanglement, Shearing". He has been Member of the Program Committee of the Int. Conference Controlo 2018, 13th APCA Int. Conf. on Control and Soft Computing (CONTROLO 2018) held in Guimarães. Member of the Scientific Committee of the Helix 2018, Int. Conf. on Innovation, Engineering and Entrepreneurship, organizer of the special session titled "Mechatronics and its Applications for Industry 4.0". He served as Member of the Scientific Committee of the International Conference Innovation Engineering in 2021 (online) and in 2022, Guimarães - PORTUGAL June 28-30, 2022. From 2019 to 2021 he served as member of the Scientific Committee of the "ITS-Mechatronics Lazio", Higher College of Technology.

His main research interests regard topics on the Robotics and Mechatronics, Automatic Machinery Design and Fluid Automation. He participated at several public and private research projects, as those with FIAT Auto, Rockwell Automation, Thyssen Krupp, KMI, WAIRCOM-MBS, INAIL, SKF.

He is co-editor of a book: "Rea, Pierluigi, et al., editors. *Design, Applications, and Maintenance of Cyber-Physical Systems*. IGI Global, 2021. <http://doi:10.4018/978-1-7998-6721-0>". He is and author and/or co-author of more than 88 scientific papers, which appeared on book, Journals and Proceedings of National and International Conferences or National and International Journals.

List of publication divided in categories

(The numbering follows the chronological order of publication)

Papers on International Journal ("refereed papers")

- 12 Figliolini G. and Rea P., "Overall design of Ca.U.M.Ha. robotic hand", *Robotica*, Vol. 24 (3), 2006, pp. 329-331.
- 13 Figliolini G., Rea P., Angeles J., "The pure-rolling cam-equivalent of the Geneva mechanism", *Mechanism and Machine Theory*, Vol. 41 (11), 2006, pp.1320-1335. ISSN: 0094114X, DOI: 10.1016/j.mechmachtheory.2006.01.002, *Codice Scopus: 2-s2.0-33746807269*

- 14 Figliolini G., Del Prete M. and Rea P., "Controllo distribuito di sistemi elettropneumatici", *Oleodinamica & Pneumatica*, Luglio 2006, pp.60-64.
19. Figliolini G., Rea P., "Mano robotica Ca.U.M.Ha. (Cassino-Underactuated-Multifinger-Hand)", *Oleodinamica & Pneumatica*, Settembre 2006, pp.150-154.
23. Figliolini G., Rea P., G. Federici, "Controllo fuzzy di un servo-asse pneumatico mediante PLC", *Oleodinamica & Pneumatica*, Luglio 2007, pp.76-79.
36. Gonzalez Rodriguez Antonio, Gonzalez Rodriguez Angel and Rea P., "A new articulated leg for mobile robots", *Industrial Robot: An International Journal*, Vol. 38, No. 5, pp. 521–532, 2011, ISSN 0143-991X, DOI 10.1108/01439911111154090. *Codice Scopus 2-s2.0-80054899004*
40. Figliolini G., Conte M., Rea P., "Algebraic algorithm for the kinematic analysis of crank/rocker mechanisms", *ASME J. of Mechanisms and Robotics*, Vol. 4 (1), 2012, Article No. 011003-1. ISSN: 19424302, DOI: 10.1115/1.4005527. *Codice Scopus 2-s2.0-84856597354*
41. Figliolini G., Rea P., "Controllo pressione-forza a applicazioni robotiche", *Oleodinamica & Pneumatica*, Maggio 2012, pp. 48-56.
45. Figliolini G., Rea P., "Effects of the design parameters on the synthesis of Geneva mechanisms". *Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science*, Vol. 227, No. 9, 2013, pp. 2000-2009, ISSN: 0954-4062, doi: 10.1177/0954406212466194. *Codice Scopus: 2-s2.0-84888172250*
49. Rea P., Ottaviano E., Conte M., D'Aguanno A., De Carolis D. (2013). "The design of a novel tilt seat for inversion therapy", *International Journal of Imaging and Robotics (IJIR)*, Vol. 11, No. 3, Pages 1-10, ISSN 2231-525X.
50. Figliolini G. and Rea P. (2014), "Mechatronic Design and Experimental Validation of a Novel Robotic Hand", *Industrial Robot: An International Journal*, Vol. 41, No. 1, Article No. 17103865, pp. 98-108, Doi: 10.1108/IR-04-2013-344; ISSN 0143-991X. *Codice Scopus: 2-s2.0-84893057249*
53. Ottaviano E., Rea P., "Design and operation of a 2DOF leg–wheel hybrid robot", *Journal of Robotica*, Vol. 31, No.8, 2013, pp. 1319-1325. DOI: 10.1017/S0263574713000556, ISSN: 02635747.
54. Rea P., Ottaviano E. , Castelli G., "A Procedure for the Design of Novel Assisting Devices for the Sit-to-Stand", *Journal of Bionic Engineering*, Vol. 10 , No.4, 2013, pp. 488-496, DOI: 10.1016/S1672-6529(13)60249-8, ISSN: 16726529.
56. Castelli G., Ottaviano E., Rea P., "A Cartesian Cable-Suspended Robot for improving end-users' mobility in an urban environment", *Robotics and Computer-Integrated Manufacturing*, Vol. 30, No.3, pp.335–343, 2014. <http://dx.doi.org/10.1016/j.rcim.2013.11.001>, ISSN: 07365845. *Codice Scopus: 2-s2.0-84889654937*
57. Ottaviano E., Rea P., Castelli G., "THROO: a Tracked Hybrid Rover to Overpass Obstacles", *Advanced Robotics*, Vol. 28, No. 10, pp. 683-694, 2014, doi=10.1080/01691864.2014.891949, ISSN: 01691864. *Codice Scopus: 2-s2.0-84900499434*
58. Grassi R., Rea P., Maggiore P., Ottaviano E., "Electric-Powered, Remote-Control Surveillance: FREEDOM, the synergy between air and land", *IEEE Transportation Electrification Newsletter*, 2014.
60. Chao K.-M., James A.E., Nanos A.G., Chen J.-H., Stan S.-D., Muntean I., Figliolini G., Rea P., Bouzgarrou C.B., Vitliemov P., Cooper J., Van Capelle J. "Cloud E-learning for Mechatronics: CLEM" *Future Generation Computer Systems*, Vol. 48, July 2015, pp. 46-59. ISSN: 0167739X, DOI: 10.1016/j.future.2014.10.033.
64. Figliolini G., Rea P., Angeles J., "The synthesis of the axodes of RCCC linkages", *Journal of Mechanisms and Robotics*, Vol. 8, No. 2, Article No. 021011; doi: 10.1115/1.4031950, ISSN: 19424302, 2016. *Codice Scopus: 2-s2.0-84949257791*
65. Figliolini G., Rea P., Grande S., "Kinematic Synthesis of Rotary Machines Generated by Regular Curve-Polygons", *Journal of Mechanical Design, Transactions of the ASME*, Vol. 138, No. 2, Article No. 022301; doi: 10.1115/1.4032088, ISSN: 10500472, 2016. *Codice Scopus: 2-s2.0-84949775964*
67. Rea P., Ottaviano E., "Analysis and Mechanical Design Solutions for Sit-To-Stand Assisting Devices", *American Journal of Engineering and Applied Sciences*, Vol. 9 No. 4, 2016, pp. 1134-1143, DOI: 10.3844/ajeassp.2016.1134.1143, ISSN: 1546-9239, 2016. (*open access*)
69. Gonzalez-Rodriguez A., Castillo-Garcia F.J., Ottaviano E., Rea P., Gonzalez-Rodriguez A.G., "On the effects of the design of cable-Driven robots on kinematics and dynamics models accuracy", *Mechatronics*, Vol. 43, No. 1, 2017, pp. 18-27, ISSN 0957-4158, <http://dx.doi.org/10.1016/j.mechatronics.2017.02.002>. *Codice Scopus: 2-s2.0-85014045822*
73. Castillo-Garcia F.J., Rea P., Gonzalez-Rodriguez A., Ottaviano E., "On the Design of a 4 Degrees-of-freedom Pick and Place Cable Suspended Parallel Manipulator", *IAES International Journal of Robotics and Automation (IJRA)*, Vol. 6, No. 4, December 2017, pp. 286-302, ISSN: 2089-4856, DOI: 10.11591/ijra.v6i4.
74. Rea P., Pelliccio A., Ottaviano E., Saccucci M., "The Heritage Management and Preservation Using the Mechatronic Survey", *International Journal of Architectural Heritage*, Vol. 11, No. 8, pp. 1121-1132, 2017, DOI: 10.1080/15583058.2017.1338790

75. Rea P., Ottaviano E., Castelli G., "A sit-to-stand device for assisting "normal-like" movements", *International Journal of Imaging and Robotics*, Vol. 17, No.4, 2017, pp. 46-56, ISSN 2231-525X.
76. Rea P., Ottaviano E., Design and Development of an Inspection Robotic System for Indoor Applications, *Robotics and Computer Integrated Manufacturing*, Vol. 49, pp. 143-151, 2018, DOI: 10.1016/j.rcim.2017.06.005. *Codice Scopus: 2-s2.0-85021670518*
77. Rea P., Ottaviano E., "Functional Design for Customizing Sit-To-Stand Assisting Devices", *Journal of Bionic Engineering*, Vol. 15, No.1, pp.83-93, 2018, <https://doi.org/10.1007/s42235-017-0006-4>. *Codice Scopus 2-s2.0-85042494169*

Chapter Book

17. Figliolini G., Ripa V. and Rea P., "Analysis of the wave and tripod gaits of a six-legged walking robot", *Proceedings of the 9th International Conference on Climbing and Walking Robots (CLAWAR06)*, Brussels (Belgium), 2006, pp.115-122.
18. Figliolini G., Rea P. and Stan S.D., "Gait analysis of a six-legged walking robot when a leg failure occurs", *Proceedings of the 9th International Conference on Climbing and Walking Robots (CLAWAR06)*, Brussels (Belgium), 2006, pp.276-283.
24. Figliolini G., Rea P., "Ca.U.M.Ha. Robotic Hand (Cassino-Underactuated-Multifinger-Hand)", *Proceedings of the 2007 IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM2007)*, 2007, Zurich, Switzerland, 2007, paper number 250. ISBN: 1424412641;978-142441264-8, doi: 10.1109/AIM.2007.4412562
26. Figliolini G., Rea P., "Chapter 1: Mechanics and Simulation of Six-Legged Walking Robots", *Climbing & Walking Robots, Towards New Applications*, I-Tech Education and Publishing, ISBN-978-3-902613-16-5, 2007. (open access)
30. Figliolini G., Rea P., Conte M. "Mechanical design of a six-legged walking robot with sarrus-2-(3-RPS) leg mechanism", *International Conference on Climbing and Walking Robots (CLAWAR09)*, pp.487-494, 2009.
35. Figliolini G., Rea P., Conte M. "Stability analysis of a novel biped walking and climbing robot", *International Conference on Climbing and Walking Robots (CLAWAR10)*, Nagoya, Giappone, pp.639-647, 2010.
37. Figliolini G., Rea P., "Static analysis of a novel biped walking and climbing robot", *International Conference on Climbing and Walking Robots (CLAWAR11)*, pp.439-646, 2011.
39. Rea P. "Chapter: On the Design of Underactuated Finger Mechanisms for Robotic Hands",. Individual Book Chapter in: *Advances in Mechatronics*, Horacio Martinez-Alfaro (eds). p. 131-154, Rijeka :InTech Europe, 2011. ISBN: 978-953-307-373-6, doi: 10.5772/24304. (open access)
51. Ottaviano E., Rea P., Errea P., Pinto C. "Design and Simulation of a Simplified Mechanism for Sit-to-Stand Assisting Devices". In: V. Petuya et al.. *Advances in Mechanisms, Transmissions and Applications*. Vol. 17, p.123-130, Ed. Springer Netherlands, ISBN: 9789400774841, doi: 10.1007/978-94-007-7485-8_16, 2013.
52. Ottaviano E., Rea P., Conte M., "Kinematic Analysis of Slider-Cranks Derived from the Lambda-Mechanism", *Proceedings of the 6th International Workshop on Computational Kinematics (CK2013)*, Ed. Springer, Vol. 15, ISBN: 9789400772137, 2013, pp. 387-394.
59. Figliolini G., Rea P., "Effects of the Design Parameters of Involute Gears Generated by Rack-Cutters", *Conference Proceedings of International Gear Conference 2014*, Lyon (France), pag. 294-302, ISBN 9781782421955.
61. Pelliccio A., Ottaviano E., Rea P. "Digital and Mechatronic Technologies Applied to the Survey of Brownfields", Chapter 27 in *Handbook of Research on Emerging Digital Tools for Architectural Surveying, Modeling, and Representation*, S. Brusaporci Ed, IGI Global Eds., pp. 813- 829, 2015. ISBN: 978-146668380-8, DOI: 10.4018/978-1-4666-8379-2.ch027.
68. Pelliccio A., Ottaviano E., Rea P., "Mechatronic survey and recording for historic towns", In book: *Delli Aspetti de Paesi Vecchi e nuovi Media per l'Immagine del Paesaggio/ Old and New Media for the Image of the Landscape*, Chapter: tomo II parte I, Editors: CIRICE - Centro Interdipartimentale di Ricerca sull'Iconografia della Città Europea, ISBN 978-88-99930-01-1, pp.147-154. DOI: 10.17455/99930-01-1/02
70. Grassi R., Rea P., Ottaviano E., Maggiore P., "Application of an inspection robot composed by collaborative terrestrial and aerial modules for an operation in agriculture", *Mechanisms and Machine Science*, Vol. 49, 2018, pp. 539-546, 26th International Conference on Robotics in Alpe-Adria-Danube Region, RAAD 2017; Turin; Italy.
71. Figliolini G., Rea P., Cocomello C., "Mechatronic design and prototype of a 4-DOFs hot-wire CNC cutting machine", *Mechanisms and Machine Science*, Vol. 49, 2018, pp. 591-598, 26th International Conference on Robotics in Alpe-Adria-Danube Region, RAAD 2017; Turin; Italy; 21-23 June 2017; DOI: 10.1007/978-3-319-61276-8_62.

- 72 Figliolini G., Lanni C., Rea P., Gallinelli T., " Mechatronic design and control of a 3-RPS parallel manipulator", Mechanisms and Machine Science, Vol. 49, 2018, pp. 74-81, 26th International Conference on Robotics in Alpe-Adria-Danube Region, RAAD 2017; Turin; Italy; 21 - 23 June 2017; DOI: 10.1007/978-3-319-61276-8_9.
- 78 Ottaviano E., Rea P., Grandinetti A., " Mechatronic Design of a Low-Cost Control System for Assisting Devices". In: Machado J., Soares F., Veiga G. (eds) Innovation, Engineering and Entrepreneurship. HELIX 2018. Lecture Notes in Electrical Engineering, Vol. 505, pp. 151-157, 2019, Springer, Cham.
- 79 Rea P., Ottaviano E., "Mechatronic Design and Control of a Robotic System for Inspection Tasks", In: Machado J., Soares F., Veiga G. (eds) Innovation, Engineering and Entrepreneurship. HELIX 2018. Lecture Notes in Electrical Engineering, Vol 505, pp. 135-142, 2019, Springer, Cham.
- 80 Rea P. and Ottaviano E., "Mechatronic Design of Low-Cost Control Systems for Rehabilitation and Assisting Devices", Chapter book, in Handbook of Research on Advanced Mechatronic Systems and Intelligent Robotics, 2020, pp. 82-97, ISSN: 2327-0411|EISSN: 2327-042X|ISBN13: 9781799801375|ISBN10: 1799801373|EISBN13: 9781799801382, DOI: 10.4018/978-1-7998-0137-5.ch004.
82. Figliolini G., Di Donato L., Melloni R., Bacchetta A.P., Lanni C., Preziosi C., Rea P., "Mechatronic Design of a Robotic Arm to Remove Skins by Wine Fermentation Tanks", AIMETA 2019: Lecture Notes in Mechanical Engineering, Springer International Publishing, Proceedings of XXIV AIMETA Conference 2019, pp. 271-277, D.O.I: 10.1007/978-3-030-41057-5_22.
- 84 Rea P., Ottaviano E., Castillo-García F.J., Gonzalez-Rodríguez A. (2022) Inspection Robotic System: Design and Simulation for Indoor and Outdoor Surveys. In: Machado J., Soares F., Trojanowska J., Yildirim S. (eds) Innovations in Mechatronics Engineering. iCieng 2021. Lecture Notes in Mechanical Engineering. Springer, Cham. https://doi.org/10.1007/978-3-030-79168-1_29
- 85 Catelani D., Di Paola L., Linari M., Ottaviano E., Rea P. (2022) Application of Advanced Co-Simulation Technology for the Analysis of Grasping. In: Machado J., Soares F., Trojanowska J., Ottaviano E. (eds) Innovations in Mechanical Engineering. iCieng 2021. Lecture Notes in Mechanical Engineering. Springer, Cham. https://doi.org/10.1007/978-3-030-79165-0_30
- 86 Ottaviano E., Rea P., Cavacece M., Figliolini G. (2022) Mechatronic Design of a Wall-Climbing Drone for the Inspection of Structures and Infrastructure. In: Machado J., Soares F., Trojanowska J., Yildirim S. (eds) Innovations in Mechatronics Engineering. iCieng 2021. Lecture Notes in Mechanical Engineering. Springer, Cham. https://doi.org/10.1007/978-3-030-79168-1_40
- 87 Rea P., Ottaviano E., Machado, J., & Antosz, K. (2021). A General Overview of E-Maintenance and Possible Applications. In P. Rea, E. Ottaviano, J. Machado, & K. Antosz (Ed.), *Design, Applications, and Maintenance of Cyber-Physical Systems* (pp. 196-218). IGI Global. <http://doi:10.4018/978-1-7998-6721-0.ch009>.

Papers on Congress national and international

1. Figliolini G., Rea P. and Principe M., "Mechatronic design of Ca.U.M.Ha. (Cassino - Underactuated - Multifinger - Hand)", CD Proceedings of 12th RAAD International Workshop on Robotics in Alpe-Adria-Danube Region, Cassino (Italy), 2003, paper 26.
2. Figliolini G. and Rea P., "Ca.U.M.Ha Robotic hand for harvesting horticulture products", XXX CIOSTA-CIGR V Conference on Management and Technology Applications to Empower Agriculture and Agro-Food Systems, Turin (Italy), 2003, pp.288-295.
3. Figliolini G., Migliozi P. and Rea P., "Kinematics of indexing mechanisms for production automation", Proceedings of the 13th Workshop on Robotics and Alpe-Adria-Danube Region (RAAD04), Brno (Czech Republic), 2004, pp.106-111.
4. Figliolini G. and Rea P., "Actuation force control of Ca.U.M.Ha. robotic hand through PWM modulated pneumatic digital valves", Proceedings of the 3rd FPNI-PhD Symposium on Fluid Power, Terrassa (Spain), 2004, pp.149-156.
5. Figliolini G. and Rea P., "Design and test of pneumatic systems for production automation", CD Proceedings of the Inaugural Conference of the Canadian Design Engineering Network (CDEN'04), Montreal (Canada), 2004.
6. Pastorelli S., Sorli M., Figliolini G. and Rea P., "Metodologia di modellazione di valvole a due vie con elevata dinamica", CD Proceedings del XVII Congresso Nazionale dell'Associazione Italiana di Meccanica Teorica e Applicata (AIMETA'05), Firenze (Italy), 2005.
7. Sorli M., Figliolini G., Pastorelli S. and Rea P., "Experimental identification and validation of a pneumatic positioning servosystem", Power Transmission & Motion Control (PTMC'2005), Bath (U.K.), 2005, pp.365-378. ISBN: 0470016779. *Codice Scopus: 2-s2.0-32144451161*

8. Figliolini G. and Rea P., "Geneva mechanism and its pure-rolling cam-equivalent", CD Proceedings of the International Workshop on Computational Kinematics (CK2005), Cassino (Italy), 2005, paper 43.
9. Figliolini G., Rea P., "Synthesis of Geneva mechanisms and their equivalent pure-rolling cams", International Workshop on Cam Transmission: functional and dynamical aspects (CT'05), 2005, Naples (Italy).
10. Rea P. and Figliolini G., "Synthesis and optimization of an underactuated finger mechanism", Proceedings of the 9th IFToMM Symposium on Theory of Machines and Mechanisms (SYROM'05), Bucharest (Romania), 2005, Vol. III, pp.747-752.
11. Figliolini G. and Rea P., "Synthesis and simulation of a multi-link suspension mechanism", Proceedings of the 9th IFToMM Symposium on Theory of Machines and Mechanisms (SYROM'05), Bucharest (Romania), 2005, Vol. II, pp.483-488.
15. Figliolini G. and Rea P., "Closed-loop pressure control through PWM modulated pneumatic digital valves", 8th International Conference on Mechatronics and Precision Engineering (COMEFIM'8), Cluj-Napoca (Romania), 2006, pp.287-292.
16. Figliolini G. and Rea P., "Experimental investigation of pneumatic digital valves with speed-up control", 8th International Conference on Mechatronics and Precision Engineering (COMEFIM'8), Cluj-Napoca (Romania), 2006, pp.281-286.
20. Figliolini G., Barbieri L., Rea P., Calcagni E. and Conte M., "Improvement of the mechatronic design of a sensorized electropneumatic gripper", Proceedings of the 16th Workshop on Robotics and Alpe-Adria-Danube Region (RAAD07), Ljubljana (Slovenia), 2007, pp.209-218.
21. Figliolini G., Rea P. and Angeles J., "Synthesis of Geneva mechanisms and their pure-rolling cams", Proceedings of the 12th IFToMM World Congress, Besancon (France), 2007, paper number 588.
22. Figliolini G., Stan S.-D. and Rea P., "Motion analysis of the leg tip of a six-legged walking robot", Proceedings of the 12th IFToMM World Congress, Besancon (France), 2007, paper number 912.
25. Figliolini G., Rea P., "Mechatronic design of a binary hybrid robot with pneumatic actuation", CD Proceedings del XVIII Congresso Nazionale dell'Associazione Italiana di Meccanica Teorica e Applicata (AIMETA'07), Brescia (Italy), 2007, paper number MA11-2.
27. Figliolini G., Conte M., Rea P., "Analysis and Synthesis of Slider-Crank Mechanisms for Automatic Machinery", Proceedings of the ASME 2008 International Design Engineering Technical Conferences & Computers and Information in Engineering Conference, Volume 2: 32nd Mechanisms and Robotics Conference, Parts A and B, August 3–6, 2008, Brooklyn, New York, USA, ISBN: 978-0-7918-4326-0, DETC2008-49863 pp. 679-688; doi: 10.1115/DETC2008-49863 .
28. Figliolini G., Rea P. and Passarella F., "Mechatronic Design of a Haptic Joystick to Control a Pneumatic Servo-Axis", Proceedings of the 17th Workshop on Robotics and Alpe-Adria-Danube Region (RAAD08), Ancona (Italy), paper number 51, 2008.
29. Figliolini G., Rea P., Conte M., "Design Flow-Chart of Slider-Crank Mechanisms and Application", Congresso Nazionale dell'Associazione Italiana di Meccanica Teorica e Applicata (AIMETA'09), Ancona (Italy), paper number 179, 2009.
32. Figliolini G., Rea P., Angeles J., "Synthesis of the pitch surfaces of non –circular gear", Proceedings of the ASME 2010 International Design Engineering Technical Conferences & Computers and Information in Engineering Conference IDETC/CIE 2010, paper number DETC2010-28902, Volume 2: 34th Annual Mechanisms and Robotics Conference, Parts A and B, August 15–18, 2010, Montreal, Quebec, Canada, ISBN: 978-0-7918-4410-6, pp. 1195-1204; doi: 10.1115/DETC2010-28902.
33. Figliolini G., Conte M., Rea P., "Algebraic Algorithm for the Kinematic Analysis of the Slider-Crank/Rocker Mechanisms", Proceedings of the ASME 2010 International Design Engineering Technical Conferences & Computers and Information in Engineering Conference, Volume 2: 34th Annual Mechanisms and Robotics Conference, Parts A and B, August 15–18, 2010, Montreal, Quebec, Canada, ISBN: 978-0-7918-4410-6, pp. 743-752; doi: 10.1115/DETC2010-28082.
34. Figliolini G., Rea P., Conte M., "Mechanical Design of a Novel Biped Climbing and Walking Robot, ROMANSY 2010, 18th CISM-IFTToMM Symposium on Robot Design, Dynamics, and Control, pp.199-206, 2010.
38. Figliolini G., Rea P., "Reuleaux Triangle and its Derived Mechanisms", Congresso Nazionale dell'Associazione Italiana di Meccanica Teorica e Applicata (AIMETA'11), Bologna (Italy), paper number 258, 2011, [ISBN 978-88-906340-0-0].
42. Figliolini G., Rea P., Angeles J., "The synthesis of the axodes of spatial four-bar linkages", ASME International Design Engineering Technical Conferences & CIE Conference (IDETC/CIE 2012), Volume 4: 36th Mechanisms and Robotics Conference, Parts A and B, August 12-15, 2012, Chicago, Illinois, U.S.A., pp. 1597-1605; doi: 10.1115/DETC2012-71255, ISBN: 978-0-7918-4503-5.
43. Figliolini G., Rea P., Grande S., "Kinematic synthesis of rotary machines generated by regular curve polygons" ASME International Design Engineering Technical Conferences & CIE Conference (IDETC/CIE 2012), Volume 4:

- 36th Mechanisms and Robotics Conference, Parts A and B, August 12-15, 2012, pp. 689-697; doi:10.1115/DETC2012-71192, ISBN: 978-0-7918-4503-5.
44. Figliolini G., Rea P., Grande S., "Higher-pair Reuleaux triangle in square and its derived mechanisms, ASME International Design Engineering Technical Conferences & CIE Conference (IDETC/CIE 2012), Volume 4: 36th Mechanisms and Robotics Conference, Parts A and B, August 12-15, 2012, Chicago, Illinois, U.S.A., pp. 1629-1638, doi: 10.1115/DETC2012-71332. ISBN: 978-0-7918-4503-5.
 46. Figliolini G., Rea P., Gambatesa R., "Vibration Energy Harvesting through Piezoelectric Generators", WTC 2013 (World Tribology Congress 2013) Torino, 8-13 settembre 2013. paper n. 1240, ISBN 9788890818509. (Poster Presentation).
 47. Figliolini G., Rea P., "Experimental investigation of a jet-pipe hydraulic servovalve", Congresso Nazionale dell'Associazione Italiana di Meccanica Teorica e Applicata (AIMETA'13), Torino (Italy), pag 70, 2013, ISBN 9788882391836, (abstract).
 48. Figliolini G., Grande S., Rea P., "On the kinematic synthesis of mechanisms for rigid-body guidance", Congresso Nazionale dell'Associazione Italiana di Meccanica Teorica e Applicata (AIMETA'13), Torino (Italy), pag 68, 2013, ISBN 9788882391836, (abstract).
 55. James, A.E., Chao, K.-M., Li, W., Matei, A., Nanos, A.G., Stan, S.-D., Figliolini, G., Rea, P., Bouzgarrou, C.B., Bratanov, D., Cooper, J., Wenzel, A., Van Capelle, J., Struckmeier, K., (2013), "An ecosystem for E-learning in mechatronics: The CLEM project", 2013 IEEE 10th International Conference on e-Business Engineering, ICEBE 2013; Coventry; United Kingdom; 11 September 2013 through 13 September 2013; Category number E5111; Code 102388.
 62. Figliolini G., Rea P., "On the synthesis of three-poses rigid-body guidance mechanisms", ASME International Design Engineering Technical Conferences & CIE Conference (IDETC/CIE 2015), Volume 5B: 39th Mechanisms and Robotics Conference, DOI: 10.1115/DETC2015-46874. ISBN: 978-0-7918-5713-7.
 63. Gonzalez-Rodríguez, A.; Ottaviano, E.; Castillo-García, F.J.; Rea, P., "A Novel Design to Improve Pose Accuracy for Cable Robots, Proceedings of The 14th IFToMM World Congress, DOI: 10.6567/IFToMM.14TH.WC.OS2.018, 2015.
 66. Figliolini G., Rea P., "Nuove soluzioni meccatroniche per il disaccoppiamento nelle macchine operatrici", CD Proceedings della giornata di studio Safety Day 2016: Promuovere la sicurezza in agricoltura, Protezione degli Operatori di Macchine Operatrici da Schiacciamento, Impigliamento, Cesoiamento. Viterbo (Italy) 28 ottobre 2016, pp. 38-43, ISBN 9788890336119.
 - 83 Ottaviano, E., Rea, P., "Design and implementation of a mobile robot for the mechatronic survey", IMEKO TC4 International Conference on Metrology for Archaeology and Cultural Heritage, MetroArchaeo 2019, pp. 449-453. Pub. IMEKO-International Measurement Federation Secretariat, ISBN: 978-929900845-4.
 - 88 Rea P., Ottaviano E., Ruggiu M. (2022) The Use of CPS for Assistive Technologies. In: Ciobotă D.D. (eds) International Conference on Reliable Systems Engineering (ICoRSE) - 2021. ICoRSE 2021. Lecture Notes in Networks and Systems, vol 305. Springer, Cham. https://doi.org/10.1007/978-3-030-83368-8_31.

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