

BIBLIOGRAPHY

Aleksandar D. Rodić

(Last update, January 2015)

A. Books / Research monographs

- A.1 Rodi , M. Vukobratovi , Dynamics, Integrated Control and Stability of Automated Road Vehicles, Research monograph, ibidem-Verlag, Stuttgart, Germany, ISBN: 3-89821-203-3, (http://www.ibidem-verlag.com/epages/61235722.sf/de_DE/?ObjectPath=/Shops/61235722/Products/3-89821-203-3), 214 pages, 2002

B. Chapters in books / monographs / thematic proceedings

- B.1 Rodi , K. Addi, G. Dalleau, "Adaptive Bio-inspired Control of Humanoid Robots ó From Human Locomotion to Artificial Biped Gait of High Performances", Chapter in the book Contemporary Robotics ó Challenges and Solutions, In-Tech, www.intechweb.org, ISBN-978-953-307-038-4, pp. 275-300, 2009
- B.2 G. Mester, A. Rodi , "Autonomous Locomotion of Humanoid Robots in Presence of Static and Mobile Obstacles ó Trajectory Prediction, Path Planning, Control and Simulation", Chapter in the book - Studies in Computational Intelligence, Series Ed.: Kacprzyk, Janusz , Towards Intelligent Engineering and Information Technology, Part III Robotics, Volume 243/2009, pp. 279-293, ISBN 978-3-642-03736-8, Library of Congress: 2009933683, DOI 10.1007/978-3-642-03737-5, Springer, 2009.
- B.3 Aleksandar Rodi , Gyula Mester, Ivan Stojkovi , "Qualitative Evaluation of Flight Controller Performances for Autonomous Quadrotors", pp. 115-134, Chapter in book: Intelligent Systems: Models and Applications, Endre Pap (Ed.), Topics in Intelligent Engineering and Informatics, Vol. 3, Part. 2, ISSN 2193-9411, e-ISSN 2193-942X, ISBN 978-3-642-33958-5, e-ISSN 978-3-642-33959-2, DOI 10.1007/978-3-642-33959-2_7, Springer, 2012.
- B.4 Aleksandar Rodi , Ivan Stojkovi , "Building of open structure wheel-based mobile robotic platform", in Interdisciplinary Mechatronics: Engineering Science and Research Development, Handbook, Editors: Prof. Dr. Maki K. Habib, Prof. Dr. J. Paulo Davim, ISTE-Wiley, ISBN: 978-18-4821-418-7, 624 pages, pp. 385-421, London, UK, April 2013
- B.5 Aleksandar Rodi , Branko Miloradovi , Svemir Popi , Sofija Spasojevi , Branko Karan, "Development of Modular Compliant Anthropomorphic Robot Hand", In Book: "New Trends in Medical and Service Robots. Theory and Integrated Applications, Series: Mechanisms and Machine Science, Springer Publishing House, Vol. 16, Pisla, D.; Bleuler, H.; Rodic, A.; Vaida, C.; Pisla, A. (Eds.), 2014, VIII, 238 p. 167, ISBN 978-3-319-01591-0, Due: September 30, 2013.
- B.6 Aleksandar Rodi , Khalid Addi, "Mathematical modeling of human affective behavior aimed to design of robot EI-controller", In Book: "New Trends in Medical and Service Robots. Challenges and Solutions, Series: Mechanisms and Machine Science, Springer Publishing House, Vol. 20, Rodic, A.; Pisla, D.; Bleuler, H.; (Eds.), 384 p., pp. 141-163, 2014, ISSN: 2211-0984, DOI10.1007/978-3-319-05431-5
- B.7 Du-ko Kati , P. Radulovi , S. Spasojevi , "Advanced pose and gesture recognition algorithms using computational intelligence and Microsoft KINECT sensor", In Book: "New Trends in Medical and Service Robots. Challenges and Solutions, Series: Mechanisms and Machine Science, Springer Publishing

House, Vol. 20, Rodic, A.; Pisla, D.; Bleuler, H.; (Eds.), 384 p., pp. 193-202, 2014, ISSN: 2211-0984, DOI10.1007/978-3-319-05431-5

- B.8 Aleksandar Rodi , Branko Miloradovi , Svemir Popi , or e Urukalo, šOn developing lightweight robot-arm of anthropomorphic characteristicsö, In Book: öNew Trends in Medical and Service Robots. Book 3, Series: Mechanisms and Machine Science, Springer Publishing House, Vol. 20, Bleuler, H.; Pisla, D.; Rodic, A.; Bouri, M; Mondada, F; (Eds.), (in print).
- B.9 M. Tomi , Ch. Vassallo, Ch. Chevallerau, A. Rodi , V. Potkonjak, öArms motion of a humanoid inspired by human motionö , In Book: öNew Trends in Medical and Service Robots. Book 3, Series: Mechanisms and Machine Science, Springer Publishing House, Vol. 20, Bleuler, H.; Pisla, D.; Rodic, A.; Bouri, M; Mondada, F; (Eds.), (in print).

C. Papers in international scientific journals

- C.1 Rodic, M. Vukobratovic, "User-Oriented Software for Modeling, Control Synthesis and Simulation of Robots in Metal Machining Process", *Mechanism and Machine Theory*, Pergamon Press, ISSN: 0094-114X, Vol. 29, No. 3, pp. 455-478, 1994.
- C.2 A. Rodic, M. Vukobratovic, "Contribution to the Controller Design in Tasks of Robotic Deburring", *Mechanism and Machine Theory*, Pergamon Press, ISSN: 0094-114X, Vol. 30, No. 3, pp. 363-382, 1995.
- C.3 M. Vukobratovic, A. Rodic, "Control of Manipulation Robots Interacting with Dynamic Environment: Implementation and Experiments", *IEEE Transaction on Industrial Electronics*, ISSN: 0278/0046, Vol. 42, No. 4, pp. 358-367, August 1995.
- C.4 A. Rodic, M. Vukobratovic, "Contribution to the Integrated Control Synthesis of Road Vehicles", *IEEE Transaction on Control Systems Technology*, ISSN: 1063-6536, Vol. 7, No. 1, pp. 64-78, January 1999.
- C.5 M. Vukobratovic, A. Rodic, Yu. Ekalo, "Impedance Control as a Particular Case of the Unified Approach to the Control of Robots Interacting with a Dynamic Known Environment", *Journal of Intelligent & Robotic Systems, Theory & Applications*, Kluwer Academic Publishers, ISSN: 0921-0296, pp. 191-204, February 1997.
- C.6 M. Vukobratovic, Y. Ekalo, A. Rodic, öHow to Apply Hybrid Position/Force Control to Robots Interacting with Dynamic Environmentö, *Journal of Intelligent & Robotic Systems, Theory & Applications*, Kluwer Academic Publishers, ISSN: 0921-0296, 2001.
- C.7 M. Vukobratovic, D. Stokic, A. Rodic, M. Vujic, "The Software System for Modeling and Control the Robotized Machining", *Problemi Masinostroenia i Avtomatizacii* (International Journal Engineering & Automation), ISSN: 0234-6206, Vol. 1, pp. 12-17, Moscow, Russia, 1992.
- C.8 M. Vukobratovic, A. Rodic, "Assembly of Mechanical Parts as a Control Task of Robots Interacting with Dynamic Environment", *Problemi Masinostroenia i Avtomatizacii* (International Journal Engineering & Automation), ISSN: 0234-6206, pp. 9-19, Vol. 3-4, Moscow, Russia, 1996.
- C.9 A. Rodic, M. Vukobratovic, öDesign of an Integrated Active Control System of Road Vehiclesö, *Journal of Computer Application in Technology*, Special issue on Active Structures, InderScience publishers, ISSN: 0952-8091, Vol. 13, Nos. ½, pp. 78-92, January 2000.
- C.10 M. Vukobratovic, A. Rodic, "Intelligent Integrated Dynamic Control of Road Vehicles", *Problemi Masinostroenia i Avtomatizacii* (International Journal Engineering & Automation), ISSN: 0234-6206, Moscow, Russia, 2000.

- C.11 A. Rodich, D. Katich, M. Vukobratovich, "The Connectionist Compensator for Advanced Integrated Road Vehicle Controller", *Problemi Masinostrojenja i Avtomatizacii* (International Journal Engineering & Automation Problems), ISSN: 0234-6206, Vol. 2, No. 1, pp. 27-39, Moscow, Russia, 2001
- C.12 A. Rodic, M. Vukobratovic "Advanced Control and Stability of Autonomous Road Vehicles, PART I: Synthesis of a hybrid neuro-dynamic controller", *International Journal of Computer Application in Technology*, InderScience publishers, ISSN: 0952-8091, Vol. 15, No. 6, pp. 233-247, 2002
- C.13 M. Vukobratovic, A. Rodic, "Advanced Control and Stability of Autonomous Road Vehicles, PART II: Practical stability of road vehicles", *International Journal of Computer Application in Technology*, InderScience publishers, ISSN: 0952-8091, Vol. 15, No. 6, pp. 248-263, 2002.
- C.14 M. Vukobratovi , A. Rodi , "Contribution to the Integrated Control of Biped Locomotion Mechanisms", *International Journal of Humanoid Robotics*, World Scientific Publishing Company, New Jersey, London, Singapore, ISSN: 0219-8436, Vol. 4, No. 1, pp. 49-95, (March 2007)
- C.15 K. Addi, D. Goeleven, A. Rodic, "Nonsmooth Mathematical Modelling and Numerical Simulation of a Spatial Vehicle Dynamics", *Zeitschrift für Angewandte Mathematik und Mechanik (ZAMM)*, Wiley-VCH Verlag GmbH & Co. KGaA - Weinheim, ISSN: 0044-2267, DOI 10.1002/zamm.200410235, pp. 1-25 (2005)
- C.16 D.Kati , A.Rodi , M.Vukobratovi , "Hybrid Dynamic Control Algorithm For Humanoid Robots Based On Reinforcement Learning", *Journal of Intelligent & Robotic Systems*, Springer, ISSN: 0921-0296, No.1, 2008, pp.3-30.
- C.17 M. Vukobratovic, V. Potkonjak, A. Rodic, "Contribution to the Dynamic Study of Humanoid Robots Interacting with Dynamic Environment", *Robotica*, CAMBRIDGE university press, ISSN: 0263-5747, United Kingdom, Vol. 22, pp. 439-447, 2004
- C.18 A. Rodi , M. Vukobratovi , "Control of Dynamic Balance of Biped Locomotion Mechanisms in Service Tasks Requiring Appropriate Trunk Postures", *Problemi Masinostrojenja i Avtomatizacii* (International Journal Engineering & Automation Problems), ISSN: 0234-6206, International journal, ISSN: 0234-6206, Vol. 5, No. 1, pp. 4-22, 2006
- C.19 D.Kati , A.Rodi , M.Vukobratovi , "Reinforcement Learning Control Algorithm for Humanoid Robot Walking", *International Journal of Information & Systems Sciences*, ISSN: 1708-296X, Vol.4, No.2, pp.256-267, 2007.
- C.20 A. Rodi , M. Vukobratovi , K. Addi, G. Dalleau, "Contribution to the Modeling of Non-smooth, Multi-point Contact Dynamics of Biped Locomotion ó Theory and Experiments", *Robotica*, CAMBRIDGE university press, ISSN: 0263-5747, Vol. 26, Issue, 02, pp. 157-175, March, 2008
- C.21 K. Addi, Aleksandar Rodic, "Impact dynamics in biped locomotion analysis: Two modelling and implementation approaches", *AIMS Journal on Mathematical Biosciences and Engineering*, <http://aims sciences.org/journals/ displayPapers1.jsp?pubID=374>, Vol. 7, No. 3, pp. 479-504, 2010
- C.22 Gyula, M., Rodic, A., "Sensor-Based Intelligent Mobile Robot Navigation in Unknown Environments", *International Journal of Electrical and Computer Engineering Systems IJECES*, Published by Faculty of Electrical Engineering "Josip Juraj Strossmayer" University of Osijek, Croatia, Volume 1, Number 2, Print ISSN: 1847-6996, Online ISSN: 1847-7003, <http://www.etfos.hr/ijeces/>, pp. 1-8, December 2010
- C.23 K. Addi, Z. Despotovic, D. Goeleven, A. Rodic, "Modelling and analysis of a non-regular electronic circuit via a variational inequality formulation Applied Mathematical Modelling", in *journal Applied Mathematical Modelling*, 2011.

- C.24 Aleksandar Rodi , Gyula Mester, The Modeling and Simulation of an Autonomous Quad-rotor Microcopter in a Virtual Outdoor Scenario , *Acta Polytechnica Hungarica, Journal of Applied Sciences*, Vol. 8, Issue No. 4, 1785-8860, pp. 107-122, 2011.
- C.25 Gyula Mester, Aleksandar Rodic, "Contribution to the Simulation of Humanoid Kondo Robot", *Annals of Faculty of Engineering Hunedoara ó International Journal of Engineering*, Tome IX, Fascicule 1, pp. 73-78, ISSN 1584 ó 2665, <http://annals.fih.upt.ro/pdf-full/2011/ANNALS-2011-1-08.pdf>, 2011.
- C.26 A. Rodic, "Intelligent Service Robotic Systems Navigation, Motion Planning and Control of Autonomous Wheeled Mobile Robots in Labyrinth Type Scenarios", *The IPSI Bgd Transactions on Internet Research Multi-, Inter-, and Trans-disciplinary Issues in Computer Science and Engineering*, A publication of IPSI Bgd Internet Research Society, New York, Frankfurt, Tokyo, Belgrade, Guest Editor Prof. G. Mester, July 2012, Volume 8, Number 2, pp. 2-9 (ISSN 1820-4503), <http://www.internetjournals.net/journals/papers/2012julyFullJournal.pdf>
- C.27 Miomir Vukobratovi , Brislav Borovac, Aleksandar Rodi , Du-ko Kati and Veljko Potkonjak, "A Bio-Inspired Approach to the Realization of Sustained Humanoid Motion", *International Journal of Advanced Robotic Systems*, InTech, DOI: 10.5772/52419, Vol. 9, pp. 201-212, 2012, 1729-8806, http://www.intechopen.com/journals/international_journal_of_advanced_robotic_systems
- C. 27 A. Rodic, G. Mester, "Sensor-based Navigation and Integrated Control of Ambient Intelligent Wheeled Robots with Tire-Ground Interaction Uncertainties", *Acta Politechnica Hungarica*, Volume 10, Issue Number 3, pp. 113/133, 2013, ISSN: 1785/8860, DOI: 10.12700/APH.10.03.2013.3.9
- C.28 Amit Ailon, Aleksandar Cosic, Ilan Zohar and Aleksandar Rodic, "Control algorithms for driving mobile robots with restricted inputs", In *Journal: Dynamics of Continuous, Discrete & Impulsive Systems, Series B: Applications & Algorithms* 20 (2013), Copyright c 2013 Watam Press, Curtin University, Canada, pp. 135-161, 2013
- C.29 M. Jovanovi , V. Vujovi , A. Rodi , V. Potkonjak, "Kinematic model of NAO humanoid robot", *Int. Journal Robotica & Management*, Ed. Robotics Society of Romania, Vol. 19, No. 1, pp. 21-26, ISSN: 1453-2069, June, 2014

D. Papers in national scientific journals

- D.1 Rodi , D. Kati , "Intelligent Control of Road Vehicles by Implementation of Artificial Neural Networks", *Tehnika*, YU ISSN: 0040-2176, UDC: 62(062.2) (497.1), Savez inženjera i tehničara Srbije, No. 5/04, pp. 1-12, 2004
- D.2 A. Rodi , "Towards Unmanned Autonomous Road Vehicles through Building of Intelligent Control System Based on a Cognitive Driver Model", *Scientific Technical Review*, YU ISSN 1820-0206, Vol. LVIII, pp. 61-68, 2008,
- D.3 A. Rodi , K. Addi, G. Dellau, "Modeling of Impact Phenomena with Biped Locomotion Mechanisms ó Theory and Experiments", *Scientific Technical Review*, YU ISSN 1820-0206, UDC: 355/359ó62, Vol. LVIX, No. 1, 2009
- D.4 M. Petrovi , A. Rodi , "Synthesis of Adaptive Impedance Control for Biped Robot Mechanisms", *Journal of Automatic Control*, Published by Faculty of Electrical Engineering, University of Belgrade, ISSN: 0354-124X, Vol. 18(1), pp. 15-18, October, 2008

- D.5 A. Rodi , K. Addi, M. Jezdimirovi , "Sensor-Based Intelligent Navigation and Control of Autonomous Mobile Robots in Advanced Terrain Missions", Scientific Technical Review, Military Journal ISSN 1820-0206, Vol. 60, No. 2, pp. 7-15, 2010.

E. Papers in proceedings of international scientific meetings

- E.1 Stokic D., Vukobratovic M., Vujic D., Rodic A., Surdilovic D. "Dynamic Models in Simulation and Synthesis of Position/Force Control of Robots", *Proceedings of VIII CISM IFToMM Symposium on Theory and Practice of Robots and Manipulators*, Cracow, Poland, July 1990.
- E.2 D.Stokic, M. Vukobratovic, A. Rodic, D. Surdilovic, "Software System for Simulation and Control Synthesis of Robots for Metal Machining Process", *Proceedings of the IFAC/IFIP/IMACS Symposium on Robot Control*, Vienna, Austria, September 1991.
- E.3 A. Rodic, M. Vukobratovic, "Regulator of Minimal Variance in Hybrid Control Strategy of Manipulation Robots", *Proceedings of the 1992 IEEE International Conference on Robotics and Automation*, Vol. 2, pp. 1232-1237, Nice, France, May 10-15, 1992.
- E.4 M. Vukobratovic, A. Rodic, "Assembly of mechanical part as a task of robots interacting with dynamic environment", *Proceedings of the 9th World Congress on the Theory of Machines and Mechanisms (IFToMM)*, Vol. 4, pp. 3028-3033, Politecnico di Milano, Milan, Italy, August 1995.
- E.5 A. Rodic, M. Vukobratovic, "Active suspension control of road-vehicles as a specific control task of dynamic systems interacting with dynamic environment", *Proceedings of The 1st ECPD International Conference on Advanced Robotics and Intelligent Automation*, pp. 665-672, Athens, September 1995. (ECPD - European Centre for Peace and Development, established by UN)
- E.6 A. Rodic, M. Vukobratovic, "Model-Based Control of Road Vehicles as Robotized Dynamic Systems", *Proceedings of The 2nd ECPD International Conference on Advanced Robotics, Intelligent Automation and Active Systems*, pp. 612-619, Vienna, Austria, 1996.
- E.7 A. Rodic, M. Vukobratovic, "Autopilot control concept of road vehicles designed for traffic in a fully automated highway systems", *Proceedings of the XIV international workshop "Industrial transport"*, Department of Mechanical Engineering, University of Belgrade, Yugoslavia, December 1996.
- E.8 A. Rodic, M. Vukobratovic, "Stabilization of road vehicles by centralized dynamic position/force control algorithm", *Proceedings of The 3rd ECPD International Conference on Advanced Robotics, Intelligent Automation and Active Systems*, pp. 531-539, Bremen, Germany, September 1997.
- E.9 V. Potkonjak, A. Rodic, M. Vukobratovic, "Roll Motion Control of Road Vehicles Using Tire Shaft Variable Geometry", *Proceedings of The 3rd ECPD International Conference on Advanced Robotics, Intelligent Automation and Active Systems*, pp. 517-524, Bremen, Germany, September 1997.
- E.10 A. Rodic, M. Vukobratovic, "New Concept of an Integrated Vehicle Control Intended for Automated Highway Systems", *Proceedings of The 4th ECPD International Conference on Advanced Robotics, Intelligent Automation and Active Systems*, pp. 137-145, Moscow, Russia, August, 1998.
- E.11 A. Rodic, D. Katic, M. Vukobratovic, "The Connectionist Compensator for Advanced Integrated Vehicle Controller", In: *CD-Proceedings of the 2001 IEEE Conference on Control Application (CCA) / IEEE International Symposium on Intelligent Control (ISIC)*, Mexico City, Mexico, September 5-7, 2001
- E.12 A. Rodic, U. Becker, E. Schnieder, "Vollständige Modellierung eines Kraftfahrzeuges für den Entwurf von Fahrdynamikregelsystemen", In: *Proceedings of the 3rd Braunschweiger Symposium zum Thema:*

„Automatisierungs und Assistenzsysteme für Transportmittel – Möglichkeiten, Grenzen, Risiken“, pp. 108-130, Braunschweig, Germany, Februar 27-28, 2002

- E.13 A. Rodic, E. Schnieder, U. Becker, „Intelligent Safety-Stability Control System of Road Vehicles Based on Characteristics of the -Driver-Vehicle- System Performances“, *VDI/VDE – GMA Fachtagung Steuerung und Regelung von Fahrzeugen und Motoren – AUTOREG 2002*, April 15-16, 2002, Mannheim, Germany
- E.14 A. Rodic, „DVL+: Matlab/Simulink Automotive Engineering Toolbox ó Specialize Software for Modeling, Control Design and Simulation of Road Vehicles“, *Entwurf komplexer Automatisierungssysteme*, 8. *Fachtagung mit Tutorium und Toolausstellung – EKA 2003*, pp. 439-458, Braunschweig, Germany, 11-14 Jun, 2003
- E.15 A. Rodic, D. Katic, M. Vukobratovic, „The Advanced Vehicle Control Algorithm Using Neural Networks“, *European Control Conference ECC2003*, Cambridge, UK, 1-4 September, 2003
- E.16 A. Rodi , M. Vukobratovi , „Intelligent Integrated Control of Vehicle Stability Characteristics“, *in Proceedings of EAEC2005 European Automotive Congress*, Serbia & Montenegro, Belgrade, June, 2005
- E.17 A. Rodi , E. Schnieder, „Hybrid Model-Based ó Knowledge-Based Control of Driver-Vehicle System Performances“, *in Proceedings of EAEC2005 European Automotive Congress*, Serbia & Montenegro, Belgrade, June, 2005
- E.18 A. Rodi , „User Oriented Software Toolbox for Advance Modeling, Control Synthesis and Simulation of Automotive Systems“, *in Proceedings of EAEC2005 European Automotive Congress*, Serbia & Montenegro, Belgrade, June, 2005
- E.19 A. Rodi , K. Addi, G. Dalleau, „Contribution to the Mathematical Modeling of Multi-point, Non-smooth Impact/Contact Dynamics of Human Gait“, *in Programme resume of the 6th International Conference AIMS 2006 “Dynamic Systems, Differential equations and Applications”*, pp. 101-102, University Poitiers, Poitiers, France, June, 2006
- E.20 D.Kati , A.Rodi , „Dynamic Control Algorithm for Biped Walking Based on Policy Gradient Fuzzy Reinforcement Learning“, *in Proceedings of the 17th IFAC World Congress*, pp. 1717-1722, Seoul, Corea, July 2008.
- E.21 D.Kati , A.Rodi , „Dynamic Control Algorithm for Biped Walking Based on Policy Gradient Fuzzy Reinforcement Learning“, *in Proceedings of the 17th IFAC World Congress*, pp. 1717-1722, Seoul, Corea, July 2008.
- E.22 A. Rodi , K. Addi, „Remotely Supervised, Intelligent, Autonomous Mobile System for Environmental Surveillance & Protection, *Scientific meeting on Remote Sensing, Image Processing, and Spatial Analysis Applied to Environmental Management and Territorial Development*, Public presentation, La Reunion, France , October, 27th ó 29th, 2008
- E.23 D. Kati , A. Rodi , „Policy Gradient Fuzzy Reinforcement Learning Control of Humanoid Walking“, *Proceedings of 2nd IFAC International Conference on Intelligent Control Systems and Signal Processing*, Istanbul, Turkey, September, 2009
- E.24 A. Rodi , D. Kati , G. Mester, „Ambient Intelligent Robot-Sensor Networks for Environmental Surveillance and Remote Sensing“, *Proceedings of the 7th International Symposium on Intelligent Systems and Informatics (SISY 2009)*, September 25-26, Subotica, Serbia, 2009
- E.25 Aleksandar Rodic, Gyula Mester, "Modeling and Simulation of Quad-rotor Dynamics and Spatial Navigation", *Proceedings of the SISY 2011, 9th IEEE International Symposium on Intelligent Systems and Informatics*, pp 23-28, ISBN: 978-1-4577-1973-8, Subotica, Serbia, September 8-10, <http://conf.uni-obuda.hu/sisy2011>, 2011

- E.26 S. Popi , A. Rodi , M. Boffi , V. Zoerbe, G. or evi , "Analysis and Modeling of Haptic Interface with Two DOFs", *9th International Symposium on Intelligent Systems and Informatics-SISY 2011, Subotica, Serbia*, 2011, Obuda University, Hungary. , DOI: 978-1-4577-1974-5, pp. 427- 431, Serbia, 08-10.09.2011, <http://conf.uni-obuda.hu/sisy2011/>, <http://ieeexplore.ieee.org/xpl/mostRecentIssue.jsp?punumber=6027501>
- E.27 Aleksandar Rodic, Milos Jovanovic, Svemir Popic, Gyula Mester, "Scalable Experimental Platform for Research, Development and Testing of Networked Robotic Systems in Informationally Structured Environments", *Proceedings of the IEEE SSCI2011, Symposium Series on Computational Intelligence, Workshop on Robotic Intelligence in Informationally Structured Space*, pp. 136-143, ISBN: 978-1-4244-9885-7, DOI: 10.1109/RIISS.2011.5945779, Paris, France, 2011.
- E.28 Amit Ailon, Aleksandar Cosic, Ilan Zohar, Aleksandar Rodic, "Control for Teams of Kinematic Unicycle-Like and Skid-Steering Mobile Robots with Restricted Inputs: Analysis and Applications", *The 15th International Conference on Advanced Robotics, ICAR 2011*, pp. 371-376, ISBN: 978-1-4577-1158-9, Tallinn University of Technology, Tallinn, Estonia, 20-23 June 2011, <http://ieeexplore.ieee.org/xpl/login.jsp?tp=&arnumber=6088541&url=http%3A%2F%2Fieeexplore.ieee.org%2Fiel5%2F6081304%2F6088536%2F06088541.pdf%3Farnumber%3D6088541>
- E.29 Aleksandar Rodic, Gyula Mester, "Virtual WRSN ó Modeling and Simulation of Wireless Robot-Sensor Networked Systems". *Proceedings of the 8th IEEE International Symposium on Intelligent Systems and Informatics, SISY 2010*, pp. 115-120, DOI: 10.1109/SISY.2010.5647245, ISBN: 978-1-4244-7394-6, Subotica, Serbia, 2010.
- E.30 Aleksandar Rodic, Dusko Katic, Gyula Mester, "Ambient Intelligent Robot-Sensor Networks for Environmental Surveillance and Remote Sensing", *Proceedings of the IEEE SISY 2009*, pp. 39-44, IEEE Catalog Number: CFP0984C-CDR, ISBN: 978-1-4244-5349-8, Library of Congress: 2009909575, DOI 10.1109/SISY.2009.5291141, Subotica, Serbia, 2009.
- E.31 Mirjana Filipovi , Svemir Popi , Milo– Jovanovi , Aleksandar Rodi , "System for observation of working area", *International Congress on Process Industry - PROCESING, SMEITS*, pp. 80-81, ISSN: 978-86-81505-61-8, 2011
- E.32 A. Rodi , G. Mester, "Modelling and Simulation of Quad-rotor Dynamics and Spatial Navigation ", In *Proceedings of 9th IEEE International Symposium on Intelligent Systems and Informatics (SISY 2011)*, IEEE Catalog Number: CFP1184C-CDER, ISBN: 978-1-4577-1973-8, Subotica, Serbia, September, 2011
- E.33 D. Katic, A. Rodic, E. B. Korochano, "Hybrid Control Algorithm for Humanoid Robots Walking Based on Episodic Reinforcement Learning", *World Automation Congress WAC 2012*, ISSN: 2154-4824, Print ISBN: 978-1-4673-4497-5, Puerto Vallarta, Mexico, June 24-28, 2012, <http://ieeexplore.ieee.org/xpl/articleDetails.jsp?reload=true&arnumber=6320884>
- E.34 A. Rodic, K. Addi, E. B. Korochano, 'Bio-inspired Control of Biped Robot Locomotion by Anthropomorphic Leg Impedance Modulation', *World Automation Congress WAC 2012*, Puerto Vallarta, ISSN: 2154-4824, Print ISBN: 978-1-4673-4497-5, Mexico, June 24-28, 2012, <http://ieeexplore.ieee.org/xpl/articleDetails.jsp?tp=&arnumber=6320887&contentType=Conference+Public>
- E.35 Aleksandar Rodic, Ivan Stojkovic, "Integrated Control of Quadrotor Flight Dynamics with Complementary Compensator of System Uncertainties", *International Micro Air Vehicle Conference and Flight Competition (IMAV2012)*, ISSN 2191 ó 8376, Session 1, pp. 1-8, Braunschweig, Germany, 03-06 Juny, 2012, <http://www.imav2012.org>
- E.36 A. Rodi , I. Stojkovi , "Dynamic Inversion Control of Quadrotor with Complementary Fuzzy Logic Compensator", *11th Symposium on Neural Network Applications in Electrical Engineering - NEUREL*, DOI: 978-1-4673-1570-8, pp. 53-58, Belgrade, Serbia, 20-22 September 2012. http://neurel.etf.bg.ac.rs/Public/Program2012/NR12_final_program.pdf

- E.37 V. Potkonjak, M. Tomic, A. Rodic, V. Antoska, "Human and Humanoid Motion - Distinguish Between Safe and Risky Mode of Locomotion", *10th International IFAC Symposium on Robot Control*, Dubrovnik, Hrvatska, Septembar, 2012., pp. 524-529, DOI:10.3182/20120905-3-HR-2030.00098, <http://www.syroco2012.org/>
- E.38 Lj. Kevac, S. Mitrovic, Z. Djurovic, A. Rodic, "Mobile robot control based on principles of Electrostatics", *10th International Symposium on Electronics and Telecommunications, ISETC 2012*, 10th Edition, Timisoara, Romania, ISBN 978-1-4673-1176-2/12, November 15-16, 2012, pp. 87- 90, <http://ieeexplore.ieee.org/xpl/articleDetails.jsp?reload=true&arnumber=6408105>
- E.39 A. Rodi , B. Miloradovi , S. Popi and I. Kr-enkovi , "Development of Anthropomorphic Robot Hand of Modular Structure", In proceedings of the 22nd International Workshop on Robotics in Alpe-Adria-Danube Region (RAAD 2013), September 11 ó 13, 2013, Portorož, Slovenia, Ed. Bojan Nemec and Leon Filipčič, Published by Jozef Stefan Institute, Ljubljana, pp. 110 ó 116, 2013
- E.40 Gyula Mester, Aleksandar Rodic, "Simulation of Quad-rotor Flight Dynamics for the Analysis of Control, Spatial Navigation and Obstacle Avoidance", Proceedings of the 3rd International Workshop on Advanced Computational Intelligence and Intelligent Informatics (IWACIII 2013), pp. 1-4, ISSN2185-758X, Shanghai, China, October 18 to 21, 2013.
- E.41 A. Rodi , M. Jovanovi , "How to make robots feel and social as humans", The 6th IARIA International Conference on Advanced Cognitive Technologies and Applications (COGNITIVE 2014), pp. 133-139, ISSN: 2308-4197, ISBN: 978-1-61208-340-7, Venice, Italy, May, 25th-29th, 2014
- E.42 A. Rodi , B. Miloradovi , . Urukalo, S. Popi , "Bio-inspired Robotic Arm with Dexterous Compliant Hand of Modular Structure", Proceedings of 11th International Symposium on Stability, Vibration and Control of Machines and Structures (SVCS 2014), Belgrade, July, 3rd-5th, 2014, ISBN 978-80-8075-655-0, EAN 9788080756550
- E.43 A. Rodi , M. Jovanovi , I. Stevanovi , D. Jovanovi , "Cognitive robots of human character", in Proceedings of 23rd International Conference on Robotics in Alpe-Adria-Danube Region (RAAD2014), ISBN 978-80-227-4219-1, IEEE catalogue number 34043, pp. 263-270, Smolenice, Slovakia, September 3-5, 2014
- E.44 A. Rodi , B. Miloradovi , . Urukalo, "On developing anthropomorphic robot-arm", in Proceedings of the 17th International multiconference Information Society (IS 2014), Volume F, Robotics, Institut "Jozef Stefan", <http://library.ijs.si/Stacks/Proceedings/InformationSociety>, pp. 29-32, Ljubljana, Slovenia, October, 8th, 2014
- E.45 A. Rodi , I. Stevanovi , M. Jovanovi , "Towards development of anthropomorphic Robots with human personality", in Proceedings of the 12th Symposium on Neural Network Applications in Electrical Engineering, pp. 141-146, IEEE Catalog Number: CFP14481-PRT, ISBN: 978-1-4799-5887-0, Congress center "Sava", Beograd, November, 25-27, 2014

F. Papers in proceedings of national scientific meetings

- F.1 Rodic, O. Timcenko, "Importance of Solid Modeling in Flexible Manufacturing System Simulation", *Proceedings of XXXII Yugoslav Conference for ETAN* (Electronics, Telecommunications, Automation and Nuclear Engineering), Sarajevo, 1988.
- F.2 D. Stokic, M. Vukobratovic, Dj. Lekovic, M. Jockovic, D. Hristic, O. Timcenko, N. Juric, A. Rodic, Z. Ognjanovic, "Program Package for Simulation and Development of Flexible Manufacturing Cells", *Proceedings of IV Yugoslav-Soviet Symposium for Applied Robotics and Flexible Automation*, Novi Sad, 1988.

- F.3 A. Rodic, D. Vujic, "Contribution to the Research of Robot Dynamics with Constrained Gripper Motion", *Proceedings of VI Yugoslav Symposium for Applied Robotics and Flexible Automatization*, Novi Sad, 1989.
- F.4 A. Rodic, D. Stokic, "Control of Manipulation Robots in Task Space", *Proceedings of VI Yugoslav Symposium for Applied Robotics and Flexible Automatization*, Novi Sad, 1989.
- F.5 A. Rodic, "Program Package for Simulation of Dynamics and Control Synthesis of Manipulation Robots with Constrained Gripper Motion", *Proceedings of XXXIV Yugoslav Conference for ETAN*, Zagreb, June 1990.
- F.6 A. Rodic, "Hybrid Control Algorithm of Manipulation Robots with Digital Force Regulator of Minimal Variance", *Proceedings of the XXXVI Yugoslav Conference of ETAN*, Vol. X-XI, pp. 175-183, Kopaonik, 1992.
- F.7 A. Rodic, "Implementation aspects of control of manipulation robots in contact with dynamic environment", *Proceeding of XXXVIII Yugoslav conference of ETAN*, Nis, 1994.
- F.8 A. Rodic, D. Katic, M. Vukobratovic, "The Neural Compensator for Advanced Vehicle Controller", *Proceedings of the 6. Workshop Application of Neural Networks in Electrotehnics - NEUREL'02*, Faculty of Electrical Engineering, Belgrade, Yugoslavia, September 2002
- F.9 A. Rodic, M. Vukobratovic, M. Filipovic, D. Katic, "Modeling and Simulation of Locomotion Mechanisms of Antropomorphic Structure Implementing the Contemporary Software Tools", *Proceedings of XLXII Yugoslav Conference for ETRAN* (Electronics, Telecommunications, Automation and Nuclear Engineering), Herceg Novi, 8-13 June, 2003.
- F.10 D. Katic, A. Rodic, "Neural Control Techniques for Humanoid Robots", *Proceedings of XLXII Yugoslav Conference for ETRAN*, Herceg Novi, 8-13 June, 2003.
- F.11 M. , A. , . , "A a o
ö, Зборник 29. скупа HIPNEF 2004, .385-390, , , M 2004.
- F.12 . , . , A. , "A a o
ö, *Proceeding 7th DQM-2004 Dependability and Quality Management*, , ,
2004.
- F.13 M. Vukobratovi , A. Rodi , "Contribution to the Integrated Control of Artificial Human Gaitö, in *Proceedings of 2nd Serbian-Hungarian Joint Symposium on Intelligent Systems*, Subotica, Serbia & Montenegro, October, 2004
- F.14 A. Rodi , D. Kati , M. Filipovi , "Control of Dynamic Balance and Trunk Posture of Humanoid Robots in Service Tasksö, in *Proceedings of 49th Conference on ETRAN*, Vol. IV, pp. 347-350, Serbia & Montenegro, Budva, 2005
- F.15 D. Kati , A. Rodi , "Control Algorithm for Humanoid Robots Walking Based on Learning Structuresö, in *Proceedings of 49th Conference on ETRAN*, Vol. IV, pp. 355-358, Serbia & Montenegro, Budva, 2005
- F.16 K. Addi, G. Dalleau, A. Rodic, "Linear Complementarity Problem Formulation Used for Modeling of Impact/Contact Dynamics of Byped Locomotion Mechanismsö, in *Proceedings of ETRAN 2006*, Belgrade, Serbia, June, 2006
- F.17 A. Rodic, M. Vukobratovic "Multi-feedback Dynamic Control of Byped Robotsö, in *Proceedings of ETRAN 2006*, Belgrade, Serbia, June, 2006
- F.18 A. Rodi , "Towards Sustainable Transport and Active Traffic Safety ó Synthesis of Hazard Prevention Control System based on Modeling of Cognitive Driver Behaviorö, UNESCO Program ó Education for All by 2015, *11th Education and Training Workshop*, Belgrade, Serbia, 22th ó 28th October, 2007
- F.19 D. Kati , A. Rodi , "Intelligent Autonomous Locomotion of Humanoid Robots through Perception, Learning and Spatial Reasoningö, in *Proceedings of the ETRAN 2008*, Subotica, Serbia, June, 2008

- F.20 A. Rodi , V. Potkonjak, "Towards Advanced Personal Robot Platform ó Concept of Intelligent Service Robot of High Performances", in *Proceedings of the ETRAN 2008*, Subotica, Serbia, June, 2008
- F.21 A. Rodi , D. Kati , "Trajectory Prediction and Path Planning of Autonomous Biped Robots ó Learning Locomotion and Fuzzy Reasoning", in *Proceedings of the 9th Symposium on Network Applications in Electrical Engineering*, Electrotechnic Faculty, Belgrade, Serbia, September, 25-27, 2008
- F.22 A. Rodi , D. Kati , "Ambient aware cognitive robot-ant ó Intelligent outdoor service robot for environmental tasks", *Zbornik ETRAN-a 2009*, Vrnja ka Banja, Jun 2009
- F.23 D. Kati , A. Rodi , "Inteligentni multi robotski sistemi za moderne trfne centre", *Zbornik ETRAN-a 2009*, Vrnja ka Banja, 2009
- F.24 Aleksandar Rodic, Gyula Mester, "Ambientally Aware Bi-Functional Ground-Aerial Robot-Sensor Networked System for Remote Environmental Surveillance and Monitoring Tasks", *Proceedings of the 55th ETRAN Conference, Section Robotics, Volume RO2.5*, pp 1-4, ISBN 978-86-80509-66-2, Banja Vru ica, Bosnia and Herzegovina, Republika srpska, Jun 6-9, 2011.
- F.25 S. Popi , A. Rodi , M. Filipovi , "Robotizovani vazdu-no-kablovski sistem vizije za 3D snimanje i nadzor scenskih i za-ti enih prostora", *Proceedings of 55th ETRAN Conference, Section Robotics, RO2.4*, Banja Vru ica, Jun, 6-9, 2011, Bosnia and Herzegovina, Republika srpska, Jun 6-9, 2011
- F.26 Milo- Jovanovi , Svemir Popi , Aleksandar Rodi , "Multifunctional Mobile Robot Platform for Outdoor Operation", In *Proceedings of INFOTEH-JAHORINA*, ISBN-99938-624-2-8, Vol. 10, Ref. A-14, pp. 64-66, 16-18 mart 2011. <http://www.infoteh.rs.ba/zbornik/2011/radovi.html>
- F. 27 Gyula Mester, Aleksandar Rodic, "Navigation of an Autonomous Outdoor Quadrotor Helicopter", *ICIST 2012 – The 2nd International Conference on Information Society Technology and Management (YU-INFO/ICIST 2012)*, ISBN: 978-86-85525-10-0, pp. 259-262, Kopaonik, Serbia, February 29th-March, 2012
- F.28 Aleksandar Rodic, Gyula Mester, Ivan Stojkovic, "Navigation and Control of Indoor Mobile Robot in Unknown Environments", *Proceedings of the 56th ETRAN Conference*, RO3.6-1-4, pp. 1-5, ISBN 978-86-80509-67-9, Zlatibor, Serbia, June 11-14, 2012.
- F.29 I. Stojkovi , A. Rodi , I. Stevanovi , "Comparison of Different Flight Control Techniques for Autonomous Quadrotors", *The 56th ETRAN Conference*, RO3.8-1-4, Zlatibor, Srbija, Jun 2012.
- F.30 S. Popi , B. Miloradovi , A. Rodi , "Jedan prilaz nadgledanja i praćenja ponašanja mobilnih i humanoidnih robota unutar test platforme korišćenjem vazdušno-kablovskog sistema", 33. *Međunarodni Kongres o Automatizaciji*, HIPNEM, Savez ma-inskih i elektrotehni kih inženjera i tehni ara Srbije SMEITS, Beograd, DOI: 978-86-81505-64-9, pp. 18-1 ó 18-6, 18 October 2012
- F.31 Svemir Popi , Branko Miloradovi , Aleksandar Rodi , Ivana Kru-enkovi , "Development of a low-cost anthropomorphic robotic hand ó Pupin hand", *Zasedanje RO2.3*, Zlatibor, Serbia, June 03-06, 2013.
- F.32 Ilija Stevanovi , Svemir Popi , Aleksandar Rodi , Ieljko Despotovi , Milo- Jovanovi , "Pokretni robotizovani solarni generator ó primer konstruktivnog re-enja mehani ke strukture", *Zasedanje RO2.6*, Zlatibor, Serbia, June 03-06, 2013.
- F.33 Petar Radulovi , Ieljko urovi , Du-ko Kati , Aleksadar Rodi , "Prepoznavanje gestova tijela fuzzy klasifikatorom kori- enjem Kinect kamere", *Zasedanje RO3.3*, Zlatibor, Serbia, June 03-06, 2013.
- F.34 Petar B. Petrovi , Aleksandar Rodi , Vladimir R. Mila i , "Robotika u industrijalizaciji ekonomskog sistema Srbije", *Zasedanje RO3.4*, Zlatibor, Serbia, June 03-06, 2013.

F.35 A. Rodi , B. Miloradovi , . Urukalo, šTowards building of lightweight robot-arm of anthropomorphic characteristicsš, The 1st IcETRAN, Vranja ka Banja, June, 2-5th, 2014, pp. ROI-2.6

G. Technical solutions, software products & patents

G.1 Software system for microprocessor robot controller based on INTEL 8086/8087, project for Russian industry, 1987.

G.2 FMS ó software package for simulation and development of flexible manufacturing systems, VTI Serbia,, 1988.

G.3 MANSIMED ó software package for educational purposes: modeling, simulation and CAD of control of manipulation robots in industry, for Technical faculties in Serbia and IPK Fraunhofer (Berlin, Germany), 1989.

G.4 Hardware-Software simulator of general purpose air-jet, Military project,, 1989.

G.5 Control and navigation system (software modules) for simulator of unmanned (pilotless) aircraft, VTI Serbia, 1991.

G.6 A Toolbox System for Design of Task-Oriented Industrial Robot Controllers, European project, EEC-Contract no. C/1*-CT91-0892 (LNBE), Fraunhofer Institute IPK, Berlin, Germany, 1992.

G.7 CONMOT ó software package for modeling, simulation and CAD of control of manipulation robots in contact industrial tasks (compliant motion), for domestic industry and research centres, 1993.

G.8 DVL+ Automotive Engineering Toolbox ó Advanced software system for modeling, control and simulation of automotive systems with driver-vehicle in the loop, Deutsche Luft und Raumfahrt (DLR), Institute for transportation systems and Technische Universitaet Braunschweig, Braunschweig, Germany, 2005

G.9 HRSP Humanoid Robot Simulation Platform ó Customized software for modeling and simulation of biped locomotion robots (humanoids), Research software delivered to French, Italian and Hungary academic institutions, 2007.

G.10 MSHUB-3D Customized Software Interface for Enhanced 3D-Sensing, Modeling and Simulation of Human Biomechanics for Use with Marker-Based Capture Motion Systems, University of Reunion, France, 2008.

G.11 Virtual WRSN ó Matlab/Simulink research purpose software for modeling, simulation and control synthesis of wireless robot-sensor networked systems, for academic institutions, 2011

G.12 MARSS ó Micro Aerial Rotorcraft Software Simulator, Matlab/Simulink research purpose software for modeling and simulation of unmanned micro aerial rotorcrafts for academic institutions, 2011/2012.

G.13 imp-MRSG ó Mobile Robotized Solar Generator for Use in Agriculture, Institute Mihajlo Pupin & Regional Development Agency of Ba ka, 2013.

G.14 Pupin hand ó Prototype of a modular compliant anthropomorphic hand for service robots and prosthesis, Institute Mihajlo Pupin, 2013.

G.15 RECIPILET ó multi-media collector of ecologic waste, OCTOPUS ó Organization for support of civil society, December 2013

H. Workshops, Tutorials

- H.1 Aleksandar Rodi , Gyula Mester, "Remotely Controlled Ground-Aerial Robot-Sensor Network for 3D Environmental Surveillance and Monitoring", TAMOP 422 Workshop, Szeged, Hungary, 2011.
- H.2 Aleksandar Rodi , Gyula Mester, "Sensor-Based Navigation, Motion Planning and Control of Autonomous Indoor Ambient Adaptive Wheel-Based Robots in Environments with Contingency Risks", TAMOP 422 Workshop, Budapest, Hungary, 2011.
- H.3 Aleksandar Rodi , Gyula Mester, "Virtual WRSN ó Modeling and Simulation of Wireless Robot-Sensor Networked Systems", TAMOP 422 Workshop, University of Szeged, Szeged, Hungary, 2010.
- H.4 Aleksandar Rodi , Gyula Mester, "Autonomous Locomotion of Humanoid Robots in Presence of Mobile and Immobile Obstacles - Path Planning, Trajectory Prediction, Control and Simulation", TAMOP 422 Workshop, University of Szeged, Szeged, Hungary, 2010.
- H.5 Gyula Mester, Aleksandar Rodic, "Autonomous Locomotion of Humanoid Robots in Presence of Mobile and Immobile Obstacles", Budapest Tech, Jubilee Conference, Budapest, Hungary, 2009.
- H.6 Aleksandar Rodi , õNew Frontiers in Service Roboticsö, The 1st International Exploratory Workshop on õNew Trends in Medical and Service Robotics (MESROB 2012)ö, TU Cluj-Napoca, Romania, June 2012.
- H.7 Aleksandar Rodi , õBuilding of Artificial Emotional and Social Behavior Attributes with Service Robotsö, The 2nd International Exploratory Workshop on õNew Trends in Medical and Service Robotics (MESROB 2013)ö, Institute Mihajlo Pupin, Serbia, July 2013.
- H.8 Aleksandar Rodi , õDeveloping a lightweight robot-arm of anthropomorphic characteristicsö, The 3rd International Exploratory Workshop on õNew Trends in Medical and Service Robotics (MESROB 2014)ö, EPFL, Lausanne, Switzerland, July, 10th-11th, 2014.

I. Plenary lectures and Invited lectures

- I.1 A. Rodi , , õBuilding attributes of artificial affective and social behavior in robotsö, The 17th International multiconference Information Society (IS 2014), Institut õJofef Tefanö, Ljubljana, Slovenia, October, 8th, 2014
- I.2 A. Rodi , õCognitive robots of human characterö, ANHUI University of Technology (AHUT), Maøanshan, Anhui, China, September, 29th, 2014
- I.3 A. Rodi , õCognitive robots of human characteröOn developing lightweight robot-arm of anthropomorphic characteristics, ANHUI University of Technology (AHUT), Maøanshan, Anhui, China, September, 25th, 2014