C U R R I C U L U M V I T A E - Prof. Veljko Potkonjak

Date: September 2016

CONTENTS:

P E R S O N A L

Name: **Veljko N. Potkonjak**

Born: July 25, 1951. Lives in Belgrade, Serbia.

Current Academic Rank: Professor
Primary Department; From Sept. 2016:
Metropolitan University, Faculty of Information Technology, Belgrade
Address: Tadeusa Koscuska 63, 11000 Belgrade
Primary Department; Before Sept. 2016:
Faculty of Electrical Engineering, University of Belgrade
Address: Bulevar Kralja Aleksandra 73, 11000 Belgrade, Serbia
E-mail: potkonjak@yahoo.com

Citizenship: Serbia

H I G H E R E D U C A T I O N

- 1974 University of Belgrade, **Dipl.Ing.** (five academic years), Field: Electrical Engineering
  Belgrade, former Yugoslavia (now Serbia)

- 1977 University of Belgrade, **Magister** (seven academic years), Field: Electrical Engineering
  Belgrade, former Yugoslavia (now Serbia)

- 1981 University of Belgrade, **Dr. / Ph.D.**, Field: Robotics
  Belgrade, former Yugoslavia (now Serbia)

STATEMENT OF I N T E R E S T S

General: fields of *Robotics*, *Automation*, *Biomechanics*, and *Cybernetics*

Specific:

• *Robot Dynamics and CAD.* My early research interests were in dynamic modeling of robots. The problems discussed were rigid body robots, compliance effects in robot joints (elastic transmissions), constrained motion, impact effects, etc. The results in the field of dynamics led to the efforts towards the

development of the world-first CAD system for industrial robots. The system included the choice of mechanical structure and the choice of drives (the system could handle DC motors and hydraulic drives). Later, the problem of contact with the dynamic environment was considered.

• *Redundancy, Biomechanics, Humanoids*. The research in the field of redundant robots resulted in the concept of distributed positioning - a variation of micro/macro manipulation. The concept followed biomechanical principles. It was applied to both industrial robots and humanoid robots. The interests for humanoid robots resulted in the analysis of redundancy resolution in writing and some other humanoid tasks. The research in the field of humanoid robots included the problems of kinematics, dynamics and intelligent control ("human-like" motion and formation of skills). The field of man-machine analogy and the formulation of mathematical models that would be used in both robotics and biomechanics constitute this important topic of my interest. Biomechanics includes a general interest in modeling human motion and behavior.

• *"Active systems"* are also within my interests. The main result is the concept of variable geometry which can be applied to wide class of mechanical systems (robot, road vehicle, constructions, etc.).

• *Education*. Interest in the education in the field of robotics and automation includes teching, creation of new majors and syllabi and development of laboratories. Research effort is oriented to e-Learning and Distance Learning in robotics and engineering sciences in general. The focus is on development and exploitation of dynamics based virual laboratories.

♦ Besides the research, I was engaged in *commercial projects*. I headed the development of some industrial robotic systems. I have special interest in the education in the field of automation. For this reason I tried end succeeded to develop some complex laboratory equipment. These devices are now commercially available. New equipment is now being developed. I see this activity promising.

E X P E R I E N C E / C A R E E R

Academic - domestic:

Metropolitan University, Faculfy of Information Technology, Belgrade, Serbia
2016-present; *Professor*, fields: *Robotics, Cyber-physical Systems*

Faculty of Electrical Eng., University of Belgrade, Serbia
1995-2016; *Professor*, field: *Robotics*, Department of Control Eng.
1990-1995; *Associate Professor*, field: *Robotics*, Department of Control Eng.
1985-1990; *Assistant Professor*, fields: *Robotics, Mechanics*, Dept. of Control Eng.
1974-1985; *Teaching and research assistant*

Faculty of Electronics, Univ. of Nis, Serbia
1990-1999; *Professor*, field: *Robotics*, Dept. of Automatic Control

Technical Faculty in Cacak, Univ. of Kragujevac, Serbia
1996-1999; *Professor*, field: *Robotics*

Technical College (ex. Polytechnic Academy), Belgrade, Serbia
1989-2014; *Professor*, field: *Electrical Engineering*

College of Electrical Engineering and Computer Science, Belgrade, Serbia
2001-present; *Professor*, field: *Mechanics, Cybernetics, Robotics, Automation*

Academic - foreign:

National Technical University of Athens, Greece
2000, 2002; *Visiting Professor-Researcher*
Intelligent Robotics and Automation Lab., Institute for Comm. and Computer Syst.

The College of Southeastern Europe - The American University of Athens
2000, 2002; *Professor*, fields: *Mathematics, Mechanics, Robotics*

Instituto Superior Tecnico / Institute for Systems and Robotics, Lisbon, Portugal,
in 2010, 2011, and 2012.

Study visits (a month or longer)

National Technical University of Athens, Greece, in 2009.

Editor in journals:

International Journal of Humanoid Robotics (publ. World Scientific) - IF (Thomson Reuters)
2010-present, *Associate Editor*

International Journal of Advanced Robotic Systems (publ. INTECH) - IF (Thomson Reuters)
2011-present, *Member of the Editorial Board* for Bio-Inspired Robotics
2012, *Topic Editor* for "Robotics and Biomechanics"

Intelligent Industrial Systems (publ. Springer)
2014-present, *Member of the Editorial Board*

International Journal of Automation and Computing (publ. Springer)
2014-present, *Associate Editor*

Administrative positions:

Board of Governors of Institute "M. Pupin" Group, Belgrade, Serbia.
2005-2008; *President* of the Board
2008-2015; *Member* of the Board

Board of Governors of the Institute for Education Quality and Evaluation, Ministry of Education, Republic of Serbia.
2005-2015; *Member* of the Board

Expert:

Council for technological development of the Republic of Serbia, Belgrade
1989-1991; Member of the expert group for *Robotics*

Ministry of Education, Republic of Serbia
1989-1991; Member of the expert group for elaboration of syllabi for vocational education (VET) in the field of mechanical eng.

City administration of Belgrade
2006-2008; Member of the commission for the annual award in the field of innovation.

European Commission, (sci.&tech.)

2006; Evaluator for research projects FP6 (Robotics)

Ministry of Education of Serbia and European Agency for Reconstruction
2006-2007; Expert-consultant for the introduction of Mechantronics in VET schools.

National Council for Education - Serbia, Commission for Accreditation
2007-present; expert-reviewer for accreditation of academic institutions

European Commission, (sci.&tech.)
2009-12; Evaluator, Reviewer, and Rapporteur for Calls 1, 2, and 3 of the FP7 Project ECHORD

European Commission, (sci.&tech.)
2009-10; Member of Scientific Council of FP7 Project SEE-ERA.NET PLUS

Ministry of Education, Republic of Serbia; Institute for Advances in Education
2010-2011; President of the commission for reformulation of profiles and elaboration of syllabi for high-school vocational education in the field of electrical engineering.

Organizations:

- Member of the Serbian Scientific Society, since 1999.

- Member of Academy of Engineering Sciences of Serbia, since 2002.

- Member of Serbian Committee for ETRAN (Electronics, Telecommunication, Computer Science and Automatic Control), Head of Section for Robotics and FMS (1995-present).

P U B L I C A T I O N S

This is a short specification; the complete list of publications is given at the end of CV

(A) Books , monographs and book chapters

- Coauthor of three research monographs (in English): two of them published by Springer-Verlag in 1982 and 1985; and one published by Kluwer Acad. Publ. in 2003.. One monograph has been translated into Japanese and Chinese.
- Coauthor of two chapters in Mechanical Systems Design Handbook (CRC Press); in English
- First author of a chapter published in two books: one is on “digital sports”, and the other on Gaming and Simulation (publ. IGI Global, both); in English
- Author/coauthor of five books and textbooks in the field of robotics and automation (in Serbian)
- Editor of conference proceedings and chapters in proceedings.

(B) International journal papers

- 73 papers related to the fields of Robotics, Automation, Biomechanics, Biomedicine, Cybernetics, and Distance- and E-lerning.

(B3) Papers in Serbian/Yugoslav journals

- 5 papers

(C) Papers at international conferences

- 38 papers on international conferences

(D) Papers on Serbian (Yugoslav) conferences

- 37 papers

(E) Papers related to the education in the field of robotics

- 10 journal and conference papers

(F) Other papers

- about 10

(G) M.Sc. and Ph.D. thesis (V.Potkonjak)

1. M.Sc. thesis: "Contribution to the algorithms for mathematical modelling of active mechanisms" (in Serbian), Univ. of Belgrade, Faculty of Electrical Eng., Belgrade (Yu), 1977.
2. D.Sc. thesis: "Computer-oriented method for the disign of manipulation robots based on the complete dynamic models", Univ. of Belgrade, Faculty of Electrical Eng., Belgrade (Yu), 1981.

C I T A T I O N

- Results of Prof. Potkonjak's work have been citied more than 500 times, h = 13, excluding self-citations (score according to Citation Index and/or Scopus).

- Biography of Prof. Potkonjak has been presented in *Marquis Who's Who in the World* and *Marquis Who's Who in Science and Engineering*, 2003 and later.

- Biography of Prof. Potkonjak has been presented in *Outstanding Scientists of the 21st Century* (ed. 2007), and in *Top 100 Scientists – 2007* (and later), publ. by International Biographical Centre, Cambridge, England.

R E V I E W S and E V A L U A T I O N S

Reviews-evaluations for projects finansed by:

- The Yugoslav Technological Development Fund
- The Serbian Technologial Development Fund
- FP6 and FP7 European research program, 2006 and 2009-2012
- Discovery Grants for Natural Sciences and Engineering Research Council of Canada (NSERC), 2014.
- Israel Science Foundation, 2016.

Reviews for journals (in alphabetic order):

- Adaptive Behavior (International Society of Adaptive Behavior; publ. SAGE)
- Automatica (IFAC)
- Computers & Education (Elsevier)
- Communications in Nonlinear Science and Numerical Simulation (Elsevier)
- Dynamics and Stability of Systems
- IEEE Transactions on Haptics
- IEEE Transactions on Robotics and Automation
- IEEE Transactions on Systems, Man and Cybernetics
- IEEE Transactions on Pattern Analysis and Machine Intelligence
- Intelligent and Robotic Systems (Kluwer Academic Publ., now Springer)
- Intelligent Automation and Soft Computing (Taylor & Francis)
- International Journal of Humanoid Robotics (World Scientific publ.)
- International Journal of Precision Engineering and Manufacturing (The Korean Society for Precision Engineering)
- Journal of Forensic Document Examiners
- Mechanism and Machine Theory (IFToMM)
- Mechatronics (Elsevier)
- Military Technical Review (in Serbian)
- Robotics and Autonomous Systems (Elsevier)
- Robotics and CIM (Elsevier)

Reviews for scientific conferences

- IROS (IEEE/RSJ Intl. Conf. on Intelligent Robots and Systems)

- ETAN/ETRAN Conference (Yugoslavia/ Serbia)
- Yugoslav Symposium for Applied Robotics
- ... Other Yugoslav/Serbian and International conferences

Reviews for research monographs, books and textbooks in Yugoslavia/Serbia - about ten.

P R O F E S S I O N A L E X P E R I E N C E

Funded Research Projects:

1- *Redundant Robotic System for Welding in Shipbuilding*
Headed by Veljko Potkonjak
Funded by: Shipbuilding Industry "Split", 1989.
Funds available*: The head plus two engineers-coresearchers, for one year.

2- *Coordination of Local and Regional Motion of Redundant Robots*
Headed by Veljko Potkonjak
Funded by: the Scientific Fund of the Republic of Serbia, 1991-1995.
Funds available: the head plus 2.5 coresearchers, for five years.

3- *Study and Development of Mobile Robot for Construction Works*
Headed by Veljko Potkonjak
Funded by: the Technology Development Fund of the Republic of Serbia with the participation of GOSA Industry, 1991-1993.
Funds available: the head plus 4 coresearchers, for 3 years.

4- *Sofwave System for CAD and Control Synthesis of Manipulation Robots*
Headed by Miomir Vukobratovic, participation of Veljko Potkonjak
Funded by: "M.Pupin" Institute, 1981-1985.

5- *Spray-Painting Robot for Construction Works*
Headed by Veljko Potkonjak
Funded by: the Technology Development Fund of the Republic of Serbia together with GOSA Industry, 1993/94.
Funds available: the head plus two coresearchers, for one year.

6- *Koordinated Motion of Industrial Robots*
Headed by Veljko Potkonjak
Funded by: the Scientific Fund of the Republic of Serbia, 1996-2000
Funds available: the head plus two coresearchers, for 5 years.

7- *Simulation and Experimental Platform for Sevice Robots*
Funded by: the Scientific Fund of the Republic of Serbia, 2002-2005
Headed by Miomir Vukobratovic, participation of Veljko Potkonjak

8- *Diagnostics Equipment for Visuo-Motoric Coordination Disorders*
Funded by: the Scientific Fund of the Republic of Serbia, 2002-2005
Participation of Veljko Potkonjak

9- *Development of a High-Performance Humanoid Robot*
Funded by: the Scientific Fund of the Republic of Serbia, 2006-2007
Participation of Veljko Potkonjak

10- *Humanoid Robotic Systems – Theory and Application*
Funded by: the Scientific Fund of the Republic of Serbia, 2008-2009
Participation of Veljko Potkonjak

11- *Embodied Cognition in a Compliantly Engineered Robot* (Collaborative Project)
Local heading (partner) – V. Potkonjak

Funded by: European Commision - FP7, 2009-2011
Local funds available: the head plus two coresearchers, for 3 years (260,000 EUR)
- Winner of EXHIBIT SECOND PRIZE at The European Future Technologies Conference and Exhibition (FET11), 4-6 May 2011 (http://www.fet11.eu/awards)
- Recognized and announced as the first among "10 Tech Concepts for 2010" by the US Magazine Popular Mechanics, Febr. 2010.

12- *Research and Development of Ambient-Intelligent Service Robots with Anthropomorphic Characteristics*
Coordinator – V. Potkonjak
Funded by: the Scientific Fund of the Republic of Serbia, 2011-2016
Funds available: the head plus 17 coresearchers, for 5.5 years.

13- *Design of Robots as Assistive Technology for the Treatment of Children With Developmental Disorders*
Funded by: the Scientific Fund of the Republic of Serbia, 2011-2016
Participation of Veljko Potkonjak

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***** Available funds are not expressed in the amount of money but in the amount of work. This is more appropriate when considering the projects done in Yugoslavia/Serbia.
For international projects, the budget is specified in EUR.

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Other Funded Projects:

1- *Automation and Robotics in Vocational Education and Training*
Headed by V. Potkonjak
Ministry of Education and Sports Republic of Serbia; Vocational Education and Training Reform Program – An EU Funded project managed by the European Agency for Reconstruction (CARDS Program), February-November 2005, Budget 57,200 EUR.

2 – *Festival: The Days of Future – Robotics*
Headed by V. Potkonjak in cooperation with the Center for Promotion of Science
Funded by Ministry of Education and Science of Serbia. October – November 2012.

3 - *Feasdibility Study for Serbian manufacturing Innovation Hub*
Headed by V. Potkonjak and K. Jovanovic
Funded by the Program Horizon2020, through the initiative I4MS. January-June 2017. Budget 50.000 EUR.

Commercial Projects:

1- *Laboratory Equipment For the Exercises and Testing In the Field of Automatic Control and Automation (Rotating Table plus PC-based Cotroller / Data Acquisition System)*
Idea by V. Potkonjak. Design and manufacturing headed by V. Potkonjak.
Projet was done during 1996 and 1997. Commercial exploitation 1997-2002.

2- *SCARA for Education and Laboratory Application (SCARA-L-01): mechanical construction plus PC-based controller*.
Participation. Project was done during 1997 and 1998.

3- *Laboratory Equipment For the Exercises and Testing In the Field of Electrical Machines*
Idea by V. Potkonjak. Design and manufacturing headed by V. Potkonjak.
Project was done during 1998-1999.

4- *Virtual Laboratory for Robotics*
Idea by V. Potkonjak. Design and manufacturing headed by V. Potkonjak.
2010.

5- *Virtual Laboratory for Hydraulic Control Systemss*
Idea by V. Potkonjak. Design and manufacturing headed by V. Potkonjak.
2014.

Consalting Activities:

1 - Inovative Solutions (Inos) - Germany, 2000.
- Study: "Torque/Force Sensors and Compliance: Technology, State-of-the-Art, Prospects, and Business Opportunities".
- Study: "Non-Haptic and Haptic Manual Control Systems: Technology, State-of-the-Art, Prospects, and Business Opportunities".

2 - Polytechnic Academy, Belgrade, Serbia
- Study and project of the reform of Technical College: new majors and syllabi, 2002
- Project of the LEGO Robotics Laboratory, 2003

3 – College of Mechanical Engineering, Zemun, Belgrade, Serbia, 2002
- Project of the Laboratory for CNC systems

4 – College of Electrical Eng., Belgrade, Serbia
- Study: Introducing Mechatronics – new curriculum and syllabi, 2003
- Project of the Laboratory for Automatic Control, 2004

Other Activities:

- Representative for products of INTELITEK (Eshed Robotec) and EMCO for Serbia and Montenegro, 2002-2004.

Seminars and conferences:

- Head of organizing committee, Seminar on Robotics and FMS, Ship building Industry "Split", Split, 1988.

- Member of the steering committee of ECPD Conf. on Robotics, 1996. (Wienna), 1997. (Bremen), 1998. (Moscow)

- Member of the International Program Committee of European Workshop on Service and Humanoid Robots (SERVICEROB-2001), June 24-27, 2001. (Santorini, Greece)

- Member of the Program Committee of the 12th Biennial Conference of the International Graphonomics Society (IGS2005), June 26-29, 2005. (Salerno, Italy)

- Member of the Programme Committee of the Intl. Conf. on Compoutational Vision and Robotics (ICCVR 2010), August 21-22, 2010. (Bhubaneswar, India)

- etc.

A W A R D S

- Award "Nikola Tesla" (in a group of five scientists), Contribution to the science, Tesla Foundation, 1985.

- ETAN Award, Best research paper in the field of Robotics and FMS on the Yugoslav Conference on Electronics, Telecommunication, Computers, and Automatics, 1984.

- Belgrade Award for scientific work (in a group of four scientists), for 2003.

- ETRAN Award for the contribution to science in the field of Robotics and FMS, 2006.

- Belgrade Award (in a group of three) for organizing a "most significant event" in 2012: *The Days of Future – Robotics*; 2012.

- Award of the Serbian Academy of Sciences and Arts in 2013, for the scientific results in the last ten years.

T E A C H I N G A C T I V I T I E S

Metropolitan University, Faculty of Information technology, Belgrade

Currently: *Cyber-Physical Systems*, III year undergraduate
Robotics, III year undergraduate

Faculty of Electrical Eng., University of Belgrade

Formerly: *Mechanics*, II year undergraduate
Mathematics, II year undergraduate
Physics, I year undergraduate
Technical Drawing, I year undergraduate
Robot Dynamics, graduate course
Flight Dynamics, graduate course
Inertial Navigation Sensors, graduate course
Robot Design and Application, graduate course
Special Robotic Systems, V year undergraduate
Manufacturing Automation, V year undergraduate

Dynamics of Mechanical Systems, II year undergraduate
Hydraulic and Pneumatic Control Systems, III year undergraduate
Robotics and Automation, III year undergraduate
CNC Systems and Flexible Automation, IV year undergraduate
Biomechanics, IV year undergraduate
Theory of Robotic Systems, IV year undergraduate, and a graduate course
Robot Sensors, IV year undergraduate, and a graduate course
Hydraulic Actuators and Control, graduate course
Special Robotic Systems, course on Ph.D. studies
Theory of Robotic Systems, course on Ph.D. studies

Faculty of Electronics, University of Nis

Formerly: *Dynamics of Robots and Machines*, IV year undergraduate
Technical Robotics, V year undergraduate
Control of Robots, graduate course

Technical Feculty, University of Kragujevac (Cacak)

Formerly: *Technical Robotics*, V year undergraduate

Polytechnic Academy, Dept. for Mechanical Eng. , Belgrade

Formerly: *Electrical Engineering*
Sensors and Actuators
Flexible Manufacturing Systems
Robotics

The College of Electrical Engineering and Computer Science, Belgrade

Formerly: *Automatic Control*
Cybernetics
Flexible manufacturing systems
Mechanics
Currently: *Robotics and Automation*

The College of Southeastern Europe - The American University of Athens

2000, 2002: *Mutivariate Calculus*, undergraduate

Analytical Mechanics, undergraduate/graduate
Robotics, undergraduate/graduate

THESIS AND DISSERTATIONS

Ph.D. thesis supervisor - 10
Mugdim Pasic, University of Sarajevo, 1992.
Goran Djordjevic, Unviersity of Nis, 1995.
Petar Maric, University of Banja Luka, 1999.
Mihajlo Lazarevic, University of Belgrade, 1999.
Mirjana Filipovic, University of Belgrade, 2007.
Milos Jovanovic, University of Belgrade, 2012.
Vesna Antoska, University of Skopje, 2013.
Kosta Jovanovic, University of Belgrade, 2016.
Sofija Spasojevic, joint program University of Belgrade and Instituto Superior Tecnico, Lisbon, Portugal, present
Marija Tomic, joint program University of Belgrade and University of Nantes, France, present

Magister thesis (after seven academic years) supervisor - 14
Goran Djordjevic, Faculty of Electronics, Nis, 1992.
Ljubinko Janjusevic, Faculty of Electrical Eng., Belgrade, 1999.
Zeyad Hamza Shennib, Faculty of Electrical Eng., Belgrade, 2000.
Salem Arbi Shafat, Faculty of Electrical Eng., Belgrade, 2000.
Jamal O.S. Bagni, Faculty of Electrical Eng., Belgrade, 2000.
Walid Mabruk Allaghi, Faculty of Electrical Eng., Belgrade, 2000.
Dragan Kostic, Faculty of Electronics, Nis, 2000.
Ivan Pavlovic, Center for Multidisciplinary Studies, Univ. of Belgrade, 2003.
Jelena Radojicic, Faculty of Electrical Eng, Belgrade, 2004.
Tarek Muhamed Abugamja, Faculty of Electrical Eng, Belgrade, 2004.
Milos Jovanovic, Faculty of Electrical Eng, Belgrade, 2004.
Ramadan Ali Isa Abouisha, Faculty of Electrical Eng, Belgrade, 2005.
Milena Petrovic, Faculty of Electrical Eng, Belgrade, 2009.
Milos Bojanic, Faculty of Electrical Eng, Belgrade, 2010.

M.Sc. thesis (after five academic years) supervisor - 19
Bratisalav Svetozarevic, Faculty of Electrical Eng, Belgrade, 2009.
Kosta Jovanovic, Faculty of Electrical Eng, Belgrade, 2010.
Vanja Komadinovic, Faculty of Electrical Eng, Belgrade, 2010.
Sofija Spasojevic, Faculty of Electrical Eng, Belgrade, 2011
Nenad Bascarevic, Faculty of Electrical Eng, Belgrade, 2011
Predrag Milosavljevic, Faculty of Electrical Eng, Belgrade, 2011
Marija Tomic, Faculty of Electrical Eng, Belgrade, 2011
Zarko Rosic, Faculty of Electrical Eng, Belgrade, 2012
Vladimir Petrovic, Faculty of Electrical Eng, Belgrade, 2012
Branko Lukic, Faculty of Electrical Eng, Belgrade, 2013
Jovana Vranic, Faculty of Electrical Eng, Belgrade, 2014
Matija Tadic, Faculty of Electrical Eng, Belgrade, 2014
Boban Dejanovic, Faculty of Electrical Eng, Belgrade, 2014
Milos Petrovic, Faculty of Electrical Eng, Belgrade, 2014
Branko Nikolic, Faculty of Electrical Eng, Belgrade, 2014
Goran Kovacevic, Faculty of Electrical Eng, Belgrade, 2014
Hana Gostimir, Faculty of Electrical Eng, Belgrade, 2015
Bjelic Marko, Faculty of Electrical Eng, Belgrade, 2015
Dimitrije Radonjic, Faculty of Electrical Eng, Belgrade, 2015

Ph.D. thesis, member of the Committee - A large number

Magister and M.Sc. thesis, member of the Committee - A large number

Dipl.Ing. (after five academic years) **and B.Sc.** (after four academic years) **thesis supervisor -** A large number.

P U B L I C A T I O N S – The Complete List

(A) Books , monographs and book chapters

Monograph books (author or coauthor):

1. M. Vukobratovic, V. Potkonjak, Dynamics of Manipulation Robots, Springer-Verlag, Berlin, (1982), (320 pages).

1a. This monograph was translated into Japanese. The book was published in Japan in 1986.

1b. The monograph was translated into Chinese (1990).

1c. Serbian language version appeared in 1981.

2. M. Vukobratovic, V. Potkonjak, Applied Dynamics and CAD of Manipulation Robots, Springer-Verlag, Berlin, (1985), (305 pages).
3. M. Vukobratovic, V. Potkonjak, V. Matijevic, Dynamics of Robots with Contact Tasks, Kluwer Academic Publishers, (2003), (248 pages).

Book chapters (author or coauthor):

4. M. Vukobratovic, V. Potkonjak, Chapter 20: Dynamics, in Section: Robotics, Mechanical Systems Design Handbook, CRC Press, 2001.
5. M. Vukobratovic, V. Potkonjak, K. Inoue, M. Takano, Chapter 21: Actuators and CAD of Robots, in Section: Robotics, Mechanical Systems Design Handbook, CRC Press, 2001.
6. V. Potkonjak, M. Vukobratovic, K. Babkovic, B. Borovac, Chapter: Dynamics and Simulation of General Human and Humanoid Motion in Sports;
   - in the book by Nigel Pope (Editor): Digital Sport for Performance Enhancement and Competitive Evolution: Intelligent Gaming Technologies; Information Science Reference – an imprint of IGI Global, USA, May 2009;
   - also in the book by Information Resources Management Association (USA), Gaming and Simulations: Concepts, Methodologies, Tools and Applications; Premier Reference Source – IGI Global, (DOI: 10.4018/978-1-60960-195-9, ISBN13: 9781609601959, ISBN10: 1609601955, EISBN13: 9781609601966), pages 998-1022, November 2010.
7. V. Potkonjak, K. Jovanovic, P. Milosavljevic, Chapter 20: "How to Control Anthropomimetic Robot: Engineering and Cognitive Approach", in A. Rodic´ et al. (eds.), New Trends in Medical and Service Robots, Mechanisms and Machine Science 20, Springer International Publishing Switzerland 2014 (ISBN 978-3-319-05431-5, DOI: 10.1007/978-3-319-05431-5_20)

Text books (author or coauthor):

8. V. Potkonjak, Advanced Robots (in Serbian), Tehnicka knjiga (Technical books), Beograd (1986), (183 pages).
9. V. Potkonjak, Robotics, (in Serbian) Naucna knjiga (Scientific books), Beograd, (1989), Univ. of Belgrade (1996), (292 pages).
10. V. Potkonjak, Elements of Automation and Robotics (in Serbian), Zavod za izdavanje udzbenika (Textbook publ. comp.), Belgrade, 1993, (150 pages).
11. V. Potkonjak et.al., Flexible Automation (in Serbian), Zavod za izdavanje udzbenika (Textbook publ. comp.), Belgrade, 1993, (320 pages).
12. M. Bucan, M. Milojevic, V. Potkonjak, Manufacturing Automation (in Serbian), Zavod za izdavanje udzbenika (Textbook publ. comp.), Belgrade, 2000, (284 pages).

As Editor:

13. A. Kecskemethy, V. Potkonjak. A. Muller (editors), Interdisciplinary Applications of Kinematics, (Proc. Intl. Conf. Lima, Peru, January 9-11, 2008.) (publ. by Springer in 2011, ISBN 978-94-007-2977-3)

14.1 - 14.16 V. Potkonjak (editor), Chapters: Robotics, in Proceedings of ETRAN, 1995–2010 (annual conference).

(B1) Invited and review papers in international journals

1. D.Milutinovic, V.Potkonjak, "A New Concept of the SCARA Robot", Robotics and Computer-Integrated Manufacturing (Pergamon Press), Vol. 7, No. 3/4, pp. 337-343, 1990.
66. M. Vukobratovic, B. Borovac, A. Rodic, D. Katic, V. Potkonjak, "Bio-Inspired Approach to Realization of the Sustained Humanoid Motion", International Journal of Advanced Robotic Systems (INTECH publ.), Special Issue: Biomechanics and Robotics – A Fruitful Interaction, Vol. 9, 2012.
71. V. Potkonjak, M. Gardner, V. Callaghan, P. Mattila, C. Guetl, V.M. Petrović,K. Jovanović, "Virtual Laboratories for Education in Science, Technology, and Engineering: a Review", Computers & Education (Elsevier), Vol. 95, pp. 309-327, April 2016, doi: 10.1016/j.compedu.2016.02.002.

(B2) International journal papers

2. M.Vukobratovic, V.Potkonjak, "Contribution to the Forming of Computer Methods for Automatic Modelling of Spatial Mechanisms Motions", PARTI. "Method of Basic Theorems of Mechanics", IFToMM Journal of Mechanisms and Mechine Theory, Vol.14, No.3, pp.179-188, (1979).
3. V.Potkonjak,M.Vukobratovic, "Two New Methods for Computer Forming of Dynamic Equations of Active Mechanisms", Journal of Mechanisms and Machine Theory, Vol.14, No.3, pp.189-200, (1979).
4. M.Vukobratovic, V.Potkonjak, (in Russian) "Nekomopbie vi~islitelbnie metodi modelirovanija na EVM dinamiki aktivnih prostranstvenih mehanizmov", ANU SSSR, Tehni~eskaja kibernetika, No.1, Moskva, pp.52-60, (1979).
5. M.Vukobratovic, V.Potkonjak, "Contribution to Computer Con struction of Active Chain Models Via Lagrangian Form", Journal of Applied Mechanics -Trans. of the ASME, No.1, Vol.46, pp.181-185, (1979).
6. V.Potkonjak, M.Vukobratovic, "CAD of Manipulation Robots Via Multi-Parameters Optimization", Journ. of Mech. and Mach. Theory, Vol.18, No.6, pp.431-438, (1983).
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V. Potkonjak has published about 10 papers which are not mentioned in this list.