# CURRICULUM VITAE

# Goran D. Putnik

(DrSc, MSc, Dipl. Ing.)



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# 0. Personal and Professional data

# 0.1 Personal data

Name: Goran D. Putnik

**Birthday:** 08.01.1954.

Birthday place: Belgrade, Serbia

Nacionality: Serbian,

Portuguese

Civil status: Married

Actual Position: Professor (Full), Universidade do Minho, Braga, Portugal

**Regime:** Tenure (Definitive nomination, with exclusivity)

Work address: Universidade do Minho

Departamento de Produção e Sistemas

4800-058 Guimarães

PORTUGAL

e-mail: putnikgd@dps.uminho.pt

fax.: +351 - 253-510343 tel.: +351 - 253-510355



# 0.2 Academic degrees

- **Dipl. Eng.**, January 1979 Degree of "Diploma Engineer" ("Diplomirani Inzenjer", srp., "Engenheiro Licenciado" port.) (5 year graduation course) in Production Engineering Faculty of Mechanical Engineering, University of Belgrade, Belgrade, Serbia.
- M.Sc., September 1988 Degree of "Master of Science" ("Magistar nauka", srp., "Mestre de Ciencias" port.) (2 year postgraduate course) in Production Engineering Faculty of Mechanical Engineering, University of Belgrade, Belgrade, Serbia.

Thesis: "Expert System for Tooling Selection"

• **Dr.Sc.**, January 1993 – Degree of "Doctor of Science" ("Doktor terhnickih nauka", srp., "Doutor de Ciencias" port.) (3 year postgraduate course) in Production Engineering – Faculty of Mechanical Engineering, University of Belgrade, Belgrade, Serbia.

Thesis: "Application of Inductive Learning Based on Automata Theory for Tooling Selection in Manufacturing Systems"

- **Equivalency of Dr.Sc.**, September 1994, by the University of Mino (Universidade do Minho), Braga, Portugal.
- Agrégation, March 2006 Degree of "Agreggated" ("Agregação" or "Agregado", port., "Dr.Habil.", germ., "Habilitation à diriger des recherches", Fr.), pela Universidade do Minho, Braga, Portugal.

Lecture: "Extended Life-Cycle of Virtual Enterprises" ("Ciclo de Vida Estendido de Empresas Virtuais", port.),

Report: "Virtual Enterprises" ("Empresas Virtuais", port.).

# 0.3 <u>Professional experience</u>

- January 1979 March 1982: Tool designer, and designer of the Information Systems for tooling, in "Motor Industry Rakovica", Belgrade ("Industrija Motora Rakovica", Beograd, (srp.)).
- March 1982 until joining University of Minho: lecturer and researcher (in the status of Assisstent), in regime of "exclusivity", in the Department of Production Engineering, Faculty of Mechanical Engineering, University of Belgrade, Belgrade, Serbia.
- February 1993 to date: professor in the Department of Production and Systems Engineering, University of Minho in the following categories:
   Visiting Professor equivalent to Assistant Professor (from February 1993 to September 1993);

Invited Professor equivalent to Assistant Professor (October 1993 to September 1995),

Assistant Professor (October 1995 to January 1999),
Associate Professor (January 1999 to March 2006),
Aggregated Professor (Associate Professor w / Aggregation) (March 2006 to May 2009),
Professor (Full Professor) (June 2009 to date).
In all categories in the regime of "exclusivity".

Teaches, or taught, the following subjects:

"Computer Aided Design and Computer Aided Process Planning (CAD/CAPP)", "Computer Aided Manufacturing I (CAM I)", "Flexible Production Systems (FPS)", "Computer Aided Quality Control and Systems", "Flexible Manufacturing Systems (FMS)", "Computer Aided Process Planning for Production Systems", "CAD Systems", "Virtual Enterprises" — on undergraduate courses in Production Engineering, Industrial Electronic Engineering, Systems Engineering, and Informatics.

"Computer Aided Design and Computer Aided Manufacturing (CAD/CAM)", "Computer Aided Process Planning (CAPP)", "Intelligent Manufacturing Systems (IMS)", "Automated Production (PA)" and "Design Theory (DT)" — on the MSc course in Computer Integrated Manufacturing (MPIC) at the University of Minho.

"Industrial Processes", "Concurrent Engineering", "Concurrent & Collaborative Engineering" and seminar "Virtual Enterprises" – **on the MSc course** in Industrial Engineering (MEI) at the University of Minho.

"CAD/CAM/CAE Systems", "Industrial Engineering", "Enterprise Organisation" – on the MSc course in Moulds Design and Manufacture of (MPFM) at the University of Minho.

NOTE: In all subjects was or is the scientific and management responsible.

Creator and Scientific Responsible of Specialization Profiles "Computer Integrated Manufacturing (CIM)" and "Virtual Enterprises and Agile Management (EVGA)" of the 2<sup>nd</sup> cycle (5th year) of the Integrated Master course in Industrial Engineering and Management (MIEGI), and of the Complementary Curricular Unit of "Enterprise Integration (EI)", " – on the Integrated Master course in Systems Engineering (MES) (restructured and new courses, following the "Bologna model"), Department of Production and Systems Engineering, University of Minho, with scientific and management responsibilities, and teaching the following subjects:

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"Virtual Enterprises" – (MIEGI - EVGA), (MES – EI)
"Agile Management and Enterpreneurship" – (MIEGI - EVGA)
"Enterprise Integration Engineering" – (MIEGI - EVGA), (MIEGI – CIM), (MES – EI)
"Computer Integrated Manufacturing" – (MIEGI – CIM), (MES – EI)
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• Invited Professor (Professor colaborador) at the University of Trás-os-Montes e Alto Douro (Universidade de Trás-os-Montes e Alto Douro) from 1996 to 2003.

Taught the following subjects: "Industrial Informatics" and "Mechanical Engineering IV" – on undergraduate courses in Mechanical Engineering ("Mechanical Engineering IV" taught in the lecturing year 1999/2000).

NOTE: In both subjects was the scientific and management responsible.

### Management responsabilities

- 1980 1982: responsible for the group for Information Systems for tooling in the "Motor Industry Rakovica (IMR)" in Belgrade.
- 1990 1992: Secretary of the Department of Production Engineering, Faculty of Mechanical Engineering, University of Belgrade.
- Member of the Direction of the MSc course on Computer Integrated Manufacturing (CIM), from 1994. Director of the MSc course on Computer Integrated Manufacturing (CIM), from 1996. (current position). (NOTE: In the last year the course didn't function)
- From 1995 to January 1999 and from March 2003 to April 2005: Deputy Director of the Center for Manufacturing Systems Engineering (CESP) at the University of Minho
- January 1999 to March 2003: Director of the Center for Manufacturing Systems Engineering (CESP) at the University of Minho.
- Founder and Responsible for the pedagogical laboratory "Laboratory Systems CAD / CAPP / CAM (LABCAD), Department of Production and Systems Engineering, University of Minho, since its establishment in 1995.
- Responsible for the group of Industrial Management and Systems (GIS) in the Department of Production and Systems Engineering, University of Minho, for the academic years 1996-2001.
- Member of the Commission of the users for *CAE Infrastructure ICAE* (CAE: Computer Aided Engineering), School of Engineering, University of Minho as the representative of the Department of Production and Systems Engineering, since 2002.
- Founder and Responsible of the research laboratory Laboratory for Virtual Enterprises (LABVE), Department of Production and Systems Engineering, University of Minho, since its establishment in 2002. (Current position).
- Founder, Coordinator and Principal Investigator of the Research Group "Distributed and Virtual Manufacturing Systems and Enterprises" (Empresas e Sistemas de Produção Distribuídos e Virtuais), of the Interdisciplinary Center for Production Technologies and Energy (CITEPE), University of Minho and national Foundation for Science and Technology (FCT), funding by FCT, since January 2008. (Current position).

# 0.4 Foundation of Scientific Conferences

- Founder of the international workshop "Workshop on Theoretical Problems on Manufacturing Systems Design and Control", the first held in Lisbon in 1996.
- Co-founder, together with Prof.. A. Gunasekaran, of the international conference "International Conference on Performance Measures, Benchmarking and Best Practices in New Economy BUSINESS EXCELLENCE '03", the first held in Guimaraes, in June 2003.

• Founder and organizer, together with Prof. P. Avila (ISEP), of the international conference "International Conference on BUSINESS SUSTAINABILITY '08", the first held in Ofir, Portugal in July 2008.

# 0.5 <u>Participation in scientific and</u> professional societies and networks

- Member of the Association "JUPITER" (Yugoslav Association for Production Systems) (activ member until 1992)
  - Secretary of the Section of Production Planning and Control in the period 1988-1992.
- Member of the Society of Tool Engineers and Technicians of Belgrade) (active member until 1992.
  - **President of the Society** in the period 1990-1992.
- Member of the IFIP WG 5.5 "COoperation infrastructure for Virtual Enterprises and electronic business – COVE", http://www.uninova.pt/~cove
- Member of the ECCON "European Chaos and Complexity in Organisations Network ECCON", http://www.chaosforum.com/nieuws/index\_eng.html
- Member of the SOCOLNET "Society of Collaborative Networks", http://www.uninova.pt/~socolnet/
- Member of the <u>CIRP The International Academy for Production</u> <u>Engineering</u>, <a href="http://www.cirp.net/">http://www.cirp.net/</a>



## 0.6 Awards

 Prize "Literati Club 2005" Highly Commended Award, presented to the authors Frans M van Eijnatten Goran Putnik for the article "Chaos, Complexity, learning and the learning organization: Towards a chaordic enterprise", The Learning Organization: An International Journal, Vol 11 No. 6, 2004.

# 0.7 Summary of scientific and engineering work and other scientific interests

- Author and co-author of more than 190 scientific and technical papers in conferences and national and international journals.
- Co-editor of 6 scientific books (plus one in preparation).
- Co-autor of 2 "authored" scientific books (monograph).
- From 1979 to 1993, he worked in various scientific and engineering projects (as researcher) in the
  Department of Production Engineering, Faculty of Mechanical Engineering, University of Belgrade.
  These projects were funded by industry and government institutions in the areas of information
  systems design, mobile robotics, CAPP, CAM, CIM, intelligent manufacturing systems design and
  operation, theory and applications.
- Since 1994, after joining the Universidae of Minho, participated as a coordinator or participant in several international projects and research projects within the Center for Production Systems Engineering (CESP) at the University of Minho, and the Center for Interdisciplinary Production Technologies and Energy (CITEPE) FCT.

In particular, the following projects are underlined: 1) in 1995, two projects were selected by the "Agency of Innovation" and featured on "Supervale Catalogue - Survey of R & D Results in Portugal" (these projects are two of the 100 projects selected from approximately 1200 projects submitted for research and development in Portugal), 2) definition of strategic project "Virtual Enterprises" within whihc currently 8 PhD theses have been completed and 5 ongoing, several master's theses completed, and direct and indirect collaboration with a number professors and PhD researchers outside the group, 3) design of the original model of virtual enterprises, "BM\_Virtual Enterprise," and its reference model "BM\_Virtual Enterprise Architecture Reference Model and the organizational model OPIM/E "OPIM/E - One-Product-Integrated -Manufacturing/Enterprise" as a special model of virtual enterprise, following the model "BM\_Virtual Enterprise".

- Participation in more than 50 scientific committees of international and national conferences and congresses.
- Reviewer of projects proposals submitted under the EU EUREKA program (for JNICT, 1996/97), and of projects proposals (two proposals) submitted to the program Research in the Area of Technological Development Program for the period 2008-2011, the Ministry of Science, Republic of Serbia, 2008.
- Reviewer "ad hoc" for a number of international journals for articles submitted for publishing.
- Invited lectures at numerous seminars, workshops, conferences and universities.
- Orientação de 13 teses de doutoramento 8 concluídas, 5 em curso.
- Supervision of 13 PhD theses 8 completed, 5 in progress.
- Associate Editor in 2 international scientific journals, and Member of the Editorial Boards in 6 international scientific journals.
- Reviewer "ad hoc" for the Editorial Advisory Board of pulisher IGP (IDEA Group Publ.), Hershey, PA, USA, for the books submitted for publication.
- Guest Editor-in 4 international scientific journals.
- Participation in various juries and arguências of Academic Degrees exams.

- Foundation / co-foundation of two international scientific conferences and an international workshop.
- His scientific and engineering interestsa are theory and implementations of design, control and integrated management of production systems and enteprises computer integrated manufacturing, CAD/CAPP/CAM, formal theory of manufacturing systems and enteprises, intelligent manufacturing systems and enteprises, design theory, product design and design engineering, machine learning as the theory of design model, concurrent and collaborative engineering, enterprise integration, distributed, agile and virtual enteprises, management of chaos and complexity in organizations.

# 1. Scientific activity

# 1.1 Scientific publications

## 1.1.1 List of publications indexed on ISI and SCOPUS

Publications indexed on ISI and SCOPUS				
No	(Nº on the		Indexed in	
	ogical lis)	Paper	ISI	SCOPUS
1	(182.)	Putnik G., Gonçalves P., Sluga A., Cunha M. M. (2008) Virtual environments for dynamically reconfigurable Concurrent/Collaborative Engineering "virtual" team, <i>CIRP Annals</i> , Vol 57, No 1, pp. 171-174	Y	Υ
2	(166.)	Putnik G.D., Cardeira C., Leitão P., Restivo F., Santos J., Sluga A., Butala P. (2007) Towards Ubiquitous Production Systems and Enterprises, in 2007 IEEE INTERNATIONAL SYMPOSIUM ON INDUSTRIAL ELECTRONICS, PROCEEDINGS, VOLS 1-8 Pages: 3203-3208, Published: 2007	Y	Y
3	(164.)	Gonçalves P., Putnik G., Cunha M. (2007) Functional requirements for user-interface architectures for Virtual Enterprise dynamic reconfiguration, in Bartolo P et al. (Eds.) Virtual and Rapid Manufacturing – Advanced Research in Virtual and Rapid Prototyping, Taylor & Francis Group, London, UK, pp 703-708 (ISBN-13: 978-0-415-41602-3)	Y	
4	(162.)	Butala P., Sluga A., Putnik G.D. (2006) Reconfigurable Manufacturing Network: an Educational Test-bed, in Annals of DAAAM for 2006 & Proceedings of the 17th International DAAAM Symposium - INTELLIGENT MANUFACTURING & AUTOMATION: FOCUS ON MECHATRONICS AND ROBOTICS, PP: 71-72	Y	

5	(159_1) (159_2)	Putnik G.D., Sluga A. (2006) Reconfigurability of Manufacturing Systems for Agility Implementation – Part I: Requirements and Principles, in Cunha P. F., Maropoulos P. G. (Eds.) <i>Proceedings of the3rd International CIRP Conference on Digital Enterprise Technology – DET 2006 (September 18-20, 2006)</i> , Setúbal, Portugal  Putnik G.D., Sluga A. (2006) Reconfigurability of Manufacturing Systems for Agility Implementation – Part I: Requirements and Principles, in Cunha P. F., Maropoulos P. G. (Eds.) <i>Digital Enterprise Technology – Perspectives and Future Challenges</i> , Springer, pp. 91-98 (ISBN-13: 978-0-387-49863-8)	Y	
6	(160_1) (160_2)	Cunha M., Sluga A., Butala P. (2006) Reconfigurability of Manufacturing Systems for Agility Implementation – Part II: Two Architectures, in Cunha P. F., Maropoulos P. G. (Eds.) Proceedings of the3rd International CIRP Conference on Digital Enterprise Technology – DET 2006 (September 18-20, 2006), Setúbal, Portugal  Putnik G.D., Sluga A., Butala P. (2006) Reconfigurability of Manufacturing Systems for Agility Implementation – Part II: Two Architectures, in Cunha P. F., Maropoulos P. G. (Eds.) Digital Enterprise Technology – Perspectives and Future Challenges, Springer, pp. 99-106 (ISBN-13: 978-0-387-49863-8)	Y	
7	(165.)	Eijnatten F., Putnik G., Sluga A. (2007) Chaordic Systems Thinking for Novelty in Contemporary Manufacturing, <i>CIRP</i> <i>Annals</i> , Vol 56, No 1, pp. 447-450	Y	Y
8	(130.)	Cunha M. M., & Putnik G. D: (2004) Trends and Solutions in Agile/Virtual Enterprise Integration, IRMA 2004 - Information Resources Management Association: <i>Innovations Through Information Technology, Vols 1 and 2</i> , pp: <b>1423-1425</b>	Y	
9	(158.)	Cunha M., Putnik G.D. (2006) Market of Resources as an Enabler of (Inter-) Organizational Reconfiguration Dynamics, in Shen W. (et al. ?) (Eds.) (Proceedings of the BASYS 2006 - 7th IFIP International Conference on INFORMATION TECHNOLOGY FOR BALANCED AUTOMATION SYSTEMS in Manufacturing and Services), Information Technology for Balanced Manufacturing Systems Book Series: INTERNATIONAL FEDERATION FOR INFORMATION PROCESSING Volume: 220, Springer, pp: 141-148, (ISBN-10: 0-387-36590-7; ISBN-13: 9780-3870-36590-7; eISBN: 10: 0-387-36590-X; ISSN: 1571—5736 / 1861-2288 (Internet))	Y	Y
10	(157.)	Putnik G.D., Sousa R. (2006) On Formal Theories And Formalisms for Virtual Enterprises, in Shen W. (et al. ?) (Eds.) (Proceedings of the BASYS 2006 - 7th IFIP International Conference on INFORMATION TECHNOLOGY FOR BALANCED AUTOMATION SYSTEMS in Manufacturing and Services), Information Technology for Balanced Manufacturing Systems Book Series: INTERNATIONAL FEDERATION FOR INFORMATION PROCESSING Volume: 220, Springer, pp: 223-232, (ISBN-10: 0-387-36590-7; ISBN-13: 9780-3870-36590-7; eISBN: 10: 0-387-36590-X; ISSN: 1571—5736 / 1861-2288 (Internet))	Y	Y

11	(151.)	Cunha M. M., Putnik G. (2006) Identification of the domain of opportunities for a Market of Resources for Virtual Enterprise integration, <i>International Journal of Production Research</i> , Taylor & Francis, UK, Vol. 44, No.12, pp: 2277-2298	Υ	
12	(128.)	Sousa R., Putnik G. (2004) "A Formal Theory of BM Virtual Enterprises Structures" in <i>Camarinha-Matos, L. M.; (Ed.),</i> "Emerging Solutions for Future Manufacturing Systems", Vienna: Springer, 2004. ISBN 0-387-22828-4, pp 315-322.	Υ	
13	(148.)	Eijnatten F. M. van, Putnik G. D. (2005) A Different View of Learning and Knowledge Creation in Collaborative Networks; in Luis Camarinha-Matos, Hamideh Afsarmanesh, Angel Ortiz (Eds) <i>Collaborative Networks and Their Breeding Environments</i> (Proceedings of PRO-VE'05 - IFIP TC 5 WG 5.5 Sixth IFIP Working Conference on VIRTUAL ENTERPRISES, 26-28 September 2005, Valencia, Spain), <i>INTERNATIONAL FEDERATION FOR INFORMATION PROCESSING</i> , Volume: 186, Springer, ISBN 0-387-28259-9.	Y	
14	(98.)	Ávila P, Putnik G. D., Cunha M. M. (2002) Brokerage Function in Agile/Virtual Enterprise Integration - A Literature Review, in Camarinha-Matos L. M. (Ed.) Collaborative Business Ecosystems and Virtual Enterprises, INTERNATIONAL FEDERATION FOR INFORMATION PROCESSING, Volume: 85, Kluwer Academic Publishers, pp 65-72 (ISBN 1-4020-7020-9)	Y	
15	(96.)	Pithon A., Putnik G. D (2002) Team Work for Concurrent Engineering in Agile/Virtual Enterprises by BM_Virtual Enterprise Architecture Reference Model, in Camarinha-Matos L. M. (Ed.) Collaborative Business Ecosystems and Virtual Enterprises, INTERNATIONAL FEDERATION FOR INFORMATION PROCESSING, Volume: 85, Kluwer Academic Publishers, pp 489-496 (ISBN 1-4020-7020-9)	Y	
16	(97.)	Cunha M. M., Putnik G. D., Ávila P. (2002) Discussion on Requirements for Agile/Virtual Enterprises Reconfiguration Dynamics: The Example of the Automotive Industry, in Camarinha-Matos L. M. (Ed.) Collaborative Business Ecosystems and Virtual Enterprises, INTERNATIONAL FEDERATION FOR INFORMATION PROCESSING, Volume: 85, Kluwer Academic Publishers, pp 527-534 (ISBN 1-4020-7020-9)	Y	
17	(91.)	Leitão P., Restivo F., Putnik, G. D. (2001) A Multi-Agent Based Cell Controller, in <i>ETFA 2001: 8TH IEEE INTERNATIONAL CONFERENCE ON EMERGING TECHNOLOGIES AND FACTORY AUTOMATION, VOL 2, PROCEEDINGS</i> , pp463-470, ISBN 0-7803-7241-7	Υ	Y
18	(85_2)	Lima M., Gomes M. P., Putnik G., Silva S. C., Monteiro J., Couto C. (2002) Mechatronics Education at the University of Minho: A summary of the present; perspectives for the future, <i>MECHATRONICS – The Science of Intelligent Machines – An International Journal</i> , Pergamon., Vol. 12, Issue 2. (2002), pp. 295-302	Y	Y
19	(70.)	Moreira F., Putnik G. D., Sousa R. (1998) Man-Machine Interface for Remote Programming and Control of NC Machine Tools at the Task Level: An Example, in Adolofson J.,	Y	

				1
		Karlsen J. (Eds.) <i>Mechatronics 98</i> (Proceedings of the 6th UK Mechatronics Forum International Conference, Skövde – Sweden), Pergamon – Elsevier Science Ltd., pp: 835-842		
20	(74.)	Rosas J. A., Putnik G. D. (1998) Contribution to Algebraic Approach for a CAD/CAPP Specification, in L. M. Camarinha-Matos, H. Afsarmanesh, V. Marik (Eds.) "Balanced Automation Systems III – Intelligent systems for Manufacturing", (Proceedings of BASYS '98,), INTELLIGENT SYSTEMS FOR MANUFACTURING: MULTI-AGENT SYSTEMS AND VIRTUAL ORGANIZATION, Kluwer Academic Publishers, pp 557-566	Y	
21	(60.)	Putnik G., Guimaraes P., Silva C. S. (1996) Virtual Enterprise/OPIM Concepts: An Institutionalization Framework, in "Balanced Automation Systems II - Implementation challenges for anthropocentric manufacturing", Proceedings of BASYS '96, (L. M. Camarinha-Matos, H. Afsarmanesh; Eds.) Chapman & Hall, pp 391-400	Y	
22	(66.)	Putnik G. D., Rosas J. A. (1997) Manufacturing System Simulation Model Synthesis: Towards Application of Inductive Inference, in "Reengineering for Sustainable Industrial Production", Proceedings of OE/IEEE/IFIP International Conference on Integrated and Sustainable Industrial Production - ISIP '97, (L.M. Camarinha-Matos; Ed.), Chapman & Hall, pp 259-272	Υ	
23	(47.)	Putnik G., Milacic V. (1994) Expert System for Tooling Selection in Manufacturing Process Planning Based on the Automata Theory, in MOVING TOWARD EXPERT SYSTEMS GLOBALLY IN THE 21ST CENTURY (Proceedings of the 2nd World Congress on Expert Systems), pp: 649-657 Lisbon	Y	
24	(18_2)	Milacic V., Putnik G. (1989) Steering rules for AGV based on primitive function and elementary movement control, Robotics & Computer Integrated Manufacturing Systems - An International Journal, Vol. 5, No. 2-3, pp 249-254.	Y	
25	(161.)	Cunha M., Putnik G.D. (2006). A Changed Economy with Unchanged Universities? A contribution to the University of the Future, Int. J. of Distance Education Technologies (IJDET)-An Official Publication of the Information Resources Management Association, IGI Global, Vol. 5, Issue 4, pp 5-25;		Y
26	(150.)	Avila P., Putnik G., Madureira A. (2005) Analysis of the Resources System Selection Algorithms for Agile/Virtual Enterprises Integration Through Genetic Algorithms, WSEAS Transactions on Information Science and Applications (ISSN 1790-0832), Volume 2, Issue 5, May 2005, pp: 592-599.		Y
27	(152.)	Cunha M. M., Putnik G. (2006) On the dynamics of Agile/Virtual Enterprise reconfiguration, <i>Int. J. Networking and Virtual Organizations</i> , InderScience, Vol. 3, Issue 1, pp.102-123		Y
28	(94.)	Putnik G. D. (2002) 'Part I – Towards an OPIM system: manufacturing SME organization for the future', <i>Int. J. Networking and Virtual</i> Organizations, Vol. 1, No 2, pp.125-150		The Journal indexed in SCOPUS – The paper is not indexed once the indexing has started after publication of the paper

29	(95.)	Putnik G. D. and da Silva Avila (2002) 'Part II – Towards an OPIM system: results of the OPIM system design simulation and an applicability analysis', Int. J. Networking and Virtual Organizations, Volume 1, No 2, pp.151-169		The Journal indexed in SCOPUS – The paper is not indexed once the indexing has started after publication of the paper
30	(124.)	F. M. Eijnatten, G. D: Putnik (2004) Chaordic System Thinking for learning organizations, in <i>The Learning Organization – An International Journal</i> , Publisher: Emerald, Volume: 11, Number: 6, pp: 415-417, Month: October, Year: 2004.		The Journal indexed in SCOPUS – The paper is not indexed once the indexing has started after publication of the paper
31	(125.)	G. D: Putnik, F. M. Eijnatten (2004) Chaordic System Thinking for learning organizations: reflections and some suggestions for use, in <i>The Learning Organization – An International Journal</i> , Publisher: Emerald, Volume: 11, Number: 6, pp: 491-494, Month: October, Year: 2004.		The Journal indexed in SCOPUS – The paper is not indexed once the indexing has started after publication of the paper
32	(126.)	F. M. Eijnatten, G. D: Putnik (2004) Chaos, complexity, learning and the learning organizations: towards a chaordic enterprise, in <i>The Learning Organization – An International Journal</i> , Publisher: Emerald, Volume: 11, Number: 6, pp: 418-429, Month: October, Year: 2004.		The Journal indexed in SCOPUS – The paper is not indexed once the indexing has started after publication of the paper
33	(153.)	Gunasekaran A., Putnik G. D. (2006) Performance measures, benchmarking and best practices in the new economy (Editorial), in <i>Benchmarking: An International Journal</i> , Publisher: Emerald, Volume: 13, Issue: 1/2, , Year: 2006.		The Journal indexed in SCOPUS – The paper is not indexed once the indexing has started after publication of the paper
34	(194.)	G. D: Putnik (2009) (Editorial) Complexity and Learning for Management and Sustainability in Turbulent Environments, in <i>The Learning Organization – An International Journal</i> , Publisher: Emerald, Volume: 16, Number: 3, pp: 185-188, Month: May, Year: 2009		Y
35	(195.)	G. D: Putnik (2009) Complexity Framework for Sustainability: An Analysis of Five Papers, in <i>The Learning Organization – An International Journal</i> , Publisher: Emerald, Volume: 16, Number: 3, pp: 261-270, Month: October, Year: 2009		Y
36	(198.)	Cunha M. M. C., Putnik G. D. (2009) Environments for Virtual Enterprise Integration, <i>International Journal of Enterprise Information Systems (IJEIS)</i> , Vol. 5, Issue 4, pp: 71-87		Y
37	(199.)	Putnik G. D. (2010) Semiotics Based Manufacturing System Integration (Editorial), International Journal of Computer Integrated Manufacturing, Volume 23, pp (in press)	Υ	Y
38	(200.)	Putnik G. D., Putnik Z. (2010) Semiotic Framework for Manufacturing Systems Integration and its Generative Integration Model, International Journal of Computer Integrated Manufacturing, Volume 23, pp (in press)	Υ	Y
39	(201.)	F. M. Eijnatten, Putnik G. D. (2010) An exploration of the integrative function of dialogue in manufacturing, International Journal of Computer Integrated Manufacturing, Volume 23, pp (in press)	Y	Y
			27	16+6

### 1.1.2 Summary of publications

<u>Tota</u>	d: <u>Classification</u> :	
6	B_Edt	- Edited book or Proceedings;
2	B_Aut	- Authored or Co-authored book (monograph);
26	B_Chp	- Book Chapter (invited);
24	J_Int	<ul> <li>Paper in a scientific international jpournal (with independent / peer review);</li> </ul>
5	J_Nat	<ul> <li>Paper in a scientific national jpournal (with independent / peer review);</li> </ul>
41	B_Chp-P_Int	<ul> <li>Paper in a book, in the form of Book Chapter, by a reknown national/international publisher of a paper presente on a conference/workshop/congress/symposium/;</li> </ul>
52	( + <b>7</b> <sup>a)</sup> ) <b>P_Int</b>	<ul> <li>Paper in Proceedings of an international conference/workshop/ congress/symposium/;</li> </ul>
44	( + 1 <sup>b)</sup> )	<ul> <li>Paper in Proceedings of a national conference/workshop/ congress/symposium/;</li> </ul>
3	C_Int	- Comunications on an international conference/workshop/congress/symposium/, published as na Abstract;
4	C_Nat	- Comunications on a national conference/workshop/ congress/symposium/, published as na Abstract;
1	DrSc	- PhD thesis;
1	MSc	- MSc thesis.

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a) published as **P\_Int** and also as **J\_Int** – counted as **J\_Int**b) published as **P\_Nat** and also as **J\_Nat** – counted as **J\_Nat** 

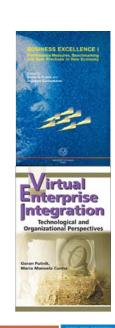
### 1.1.3 Publications and communications – with independent review

### 1.1.3.1 Books

#### *List in chronological order:*

#### **Published**

- 1. Putnik G., Gunasekaran A. (Eds.) (2003) Business Excellence I – Performance Measures, Benchmarking and Best Practices in New Economy, University of Minho, Guimarães, pages: xxii+804 (ISBN 972-8692-08-0), (B Edt). (Proceedings of the First International Conference on Performance Measures, Benchmarking and Best Practices in New Economy - Business Excellence '03, Guimarães, June 2003.)
- Putnik G., Cunha M. M. (Eds.) (2005) Virtual Enterprise 2. Integration: Technological and Organizational Perspectives, IDEA Group Publishing, Hershey, PA, USA, pages: xvii+455 (ISBN: 1-59140-405-3; ISBN: 1-59140-406-1; eISBN: 1-59140-407-X), (B\_Edt).
- 3. Cunha M. M., Putnik G. (2006) Agile Virtual Enterprises: Implementation and Management Support, IDEA Group Publishing, Hershey, PA, USA, pages: XX+380 (ISBN 1-59904-010-7 (hardcover), ISBN 1-59904-011-5 (soft cover), ISBN 1-59904-012-3 (eBook)), (B Aut)
- Cunha M. M., Cortes B. C., Putnik G. (2006) Adaptive 4. Technologies and Business Integration: Social Managerial, and Organizational Dimensions, IDEA Group Publishing, Hershey, PA, USA, pages: xx+362 (ISBN 1-59904-048-4 (hc), ISBN 1-59904-048-4 (e-book)), **(B Edt)**.
- 5. Putnik G., Cunha M. M. (Eds.) (2006) Knowledge and Technology Management in Virtual Organizations: Issues, Trends, Opportunities and Solutions, IDEA Group Publishing, Hershey, PA, USA, pages: xvi+368 (ISBN 1-59904-165-0 (hc), ISBN 1-59904-166-9 (soft cover), ISBN 1-59904-167-7 (e-book)), (B\_Edt).
- Putnik G., Cunha M. M. (Eds.) (2008) Encyclopedia of 6. Networked and Virtual Organizations, IDEA Group Publishing,



Adaptive Technologies

and Business Integration

Agile Virtual





Hershey, PA, USA, pages: 1.900 (ISBN-10: 1-59904-885-X, ISBN-13: 978-1-59904-885-7), (**B\_Edt**).

- 7. Gonçalves P., Putnik G., Cunha M. M. (2009) *Characterization of Interfaces between Endusers in Agile and Virtual Enterprises*, pages: \_\_\_\_(ISBN\_\_\_\_\_\_\_), (B\_Aut).
- 8. Putnik G. D., Ávila P. (Eds.), (2010) Business Sustainability I Management, Technology and Learning for Individuals, Organisations and Society in Turbulent Environment. Guimarães: School of Engineering University of Minho; Porto: ISEP School of Engineering Polytechnic of Porto, pages: xix + 334 (ISBN 978-972-8692-48-3, ISBN 978-989-95907-1-7), (B\_Edt).

(Proceedings of the First International Conference on Business Sustinability 2008 – Management, Technology and Learning for Individuals, Organisations and Society in Turbulent Environment, Ofir, Portugal, June 2008.)



### **Ongoing production**

8\*. Cunha M. M., Putnik G. D., Gonçalves P., Lopes N. & Miranda E. M. (2011) Business Social Networking: Organizational, Managerial, and Technological Dimensions, IGI Global (B\_Edt). (scheduled for publication in 2011)

\* not counted in the total publications

NOTE: The books 2 and 3 are also listed in the section 2.3 teaching supporting materials

# 1.1.3.2 Papers published in international and national Journals and Conference Proceedings

### <u>List in chronological order:</u>

- 1. Putnik G., Kostovski S., Tesic A. (1980) Technological data bank in 'Motor Industry Rakovica', in *Proceedings of the 1st Yugoslav Symposium Technological Data Banks for Yugoslav Metalworking Industry*, Opatija, Yugoslavia; *(in Serbian)*; (P\_Nat);
- 2\_1. Putnik G. (1982) A method for determination of the tool-operation-part connection value, in Proceedings of the 12th Yugoslav Symposium "Production Control in Metalworking Industry", Belgrade, Yugoslavia; (in Serbian); (P\_Nat);

- 2\_2. Putnik G. (1982) A method for determination of the tool-operation-part connection value, PRODUCTION – Journal for Production and Management, Belgrade, Yugoslavia, Vol. 3., No. 10, pp 42-45; (in Serbian); (ibid. 2\_1.) (J\_Nat)
- 3. Putnik G., Popovic Z., Urosevic M. (1983) Computer graphics for design of tools for pressing operations, in *Proceedings of the 9th JUPITER Conference*, Herceg Novi, Yugoslavia; *(in Serbian)*; (P\_Nat);
- 4. Putnik G., Urosevic M. (1983) Automated Guided Vehicle for parts transport as a subsystem of a FMS and applications overview, in *Proceedings of the 13th Yugoslav Symposium "Production Control in Metalworking Industry"*, Belgrade, Yugoslavia; *(in Serbian)*; (P\_Nat);
- 5. Putnik G., Popovic Z., Urosevic M. (1983) Information and software base for computer graphics for design of tools for pressing operations, in *Proceedings of the 13th Yugoslav Symposium "Production Control in Metalworking Industry"*, Belgrade, Yugoslavia; *(in Serbian)*; **(P\_Nat)**;
- 6. Milacic V., Bojanic P., Nenadovic L., Putnik G. (1984) TOPIS II Inventory control module, in *Proceedings of the 10th JUPITER Conference*, Cavtat, Yugoslavia; *(in Serbian)*; (P\_Nat);
- 7. Velikic Z., Putnik G. (1984) Development of the integrated computer based information system for 'POBEDA Machine Industry', in *Proceedings of the 3rd Yugoslav Symposium "New Technologies in the Metalworking Industry Development Strategy"*, Cavtat, Yugoslavia; *(in Serbian)*; (P\_Nat);
- 8. Raskovic D., Putnik G. (1984) Some experimental results on the roughness function in broaching of forged parts, in *Proceedings of the 14th Yugoslav Symposium "Production Control in Metalworking Industry"*, Belgrade, Yugoslavia; (in Serbian); (P\_Nat);
- 9. Putnik G. (1984) A contribution for a formal language for conceptual design, in *Proceedings of the 14th Yugoslav Symposium "Production Control in Metalworking Industry"*, Belgrade, Yugoslavia; (in Serbian); (P\_Nat);
- Putnik G. (1985) System-analyses of the FMS simulators with an overview of some simulators in USA, in *Proceedings of the 11th JUPITER Conference*, Cavtat, Yugoslavia; (in Serbian); (P\_Nat)t;
- 11. Putnik G. (1985) TOPIS II Software package for production control and possibilities for application in a fire protection system, in *Proceedings of the 4th Scientific Meeting "Man and Working Environment"*, Nis, Yugoslavia; *(in Serbian)*; (P\_Nat);
- 12. Milacic V., Putnik G., Urosevic M., Milutinovic N., Popovic S., Dzepina M. (1986) Laboratory model of the automated guided vehicle, in *Proceedings of the 5th Yugoslav Symposium "New Technologies in the Metalworking Industry Development Strategy"*, Cavtat, Yugoslavia; *(in Serbian)*; (P\_Nat);
- 13. Milacic V., Putnik G., Smiljanic Z. (1986) FMS simulator as a tool for selecting and designing automated guided vehicles, in *Proceedings of the 5th Yugoslav Symposium "New Technologies in the Metalworking Industry Development Strategy"*, Cavtat, Yugoslavia; *(in Serbian)*; (P\_Nat);

- 14. Milacic V., Putnik G., Smiljanic Z. (1986) Simulation of the steering kinematics for automated guided vehicles, in *Proceedings of the 1<sup>st</sup> International (9<sup>th</sup> Yugoslav) Symposium "NC-ROBOTS-FMS"*, CIRP sponsored, Belgrade **(P\_Int)**;
- Milacic V., Putnik G. (1986) Traffic control software for YU-AGV, in *Proceedings of the SME Ultratech Automated Guided Vehicles Systems Conference*, Long Beach (California) (P\_Int);
- 16. Nenadovic L., Putnik G., Milacic V., Gligorijevic Z. (1987) Inventory system control as a module of the integrated information system for production control, in *Proceedings of the 13th JUPITER Conference*, Cavtat, Yugoslavia; *(in Serbian)*; (P\_Nat);
- Putnik G., Milacic V., Gligorijevic Z. (1987) Transport control in a Flexible Manufacturing System, in *Proceedings of the 6th Yugoslav Symposium "New Technologies in the Metalworking Industry Development Strategy"*, Cavtat, Yugoslavia; (in Serbian); (P\_Nat);
- 18\_1. Milacic V., Putnik G. (1987) Steering rules for AGV based on primitive function and elementary movement control, in *Proceedings of the 1<sup>st</sup> International Conference on the Robotics*, Dubrovnik (P\_Int);
- 18\_2. Milacic V., Putnik G. (1989) Steering rules for AGV based on primitive function and elementary movement control, *Robotics & Computer Integrated Manufacturing Systems An International Journal*, Vol. 5, No. 2-3, pp 249-254. (ibid. 18\_1.) (J\_Int)
- 19. Spasic Z., Putnik G., Milacic V. (1987) Data/Knowledge base in computer integrated factories, in *Proceedings of the 21st Scientific Meeting of the Production Engineering*, Opatija, Yugoslavia; (in Serbian); (P\_Nat);
- Putnik G., Petrovic P., Milutinovic N. (1988) Contribution to the questions for an application of TV camera as a sensor for object recognition in assembly, in *Proceedings of the 10th Yugoslav Symposium "NC-ROBOTS-FMS"*, Cavtat, Yugoslavia; (in Serbian); (P\_Nat);
- 21. Putnik G., Nikacevic T., Obradovic P., Ostojic V. (1988) Contribution for the information system for the manufacturing operations scheduling, in *Proceedings of the 17th Yugoslav Symposium "Production Control in Metalworking Industry"*, Cavtat, Yugoslavia; *(in Serbian)*; (P\_Nat);
- 22. Jovanovic T., Miftari H., Putnik G. (1988) Contribution for definition of the information domain for a production capacities maintenance, in *Proceedings of the 14th Yugoslav Symposium "Production Control in Metalworking Industry"*, Belgrade, Yugoslavia; *(in Serbian)*; (P\_Nat);
- 23. Spasic Z., Putnik G., Pilipovic M. (1988) CIM systems in the Yugoslav industries: can it be reality, in *Proceedings of the 7th Yugoslav Symposium "CIM in the Metalworking Industry Development Strategy"*, Cavtat, Yugoslavia; *(in Serbian)*; (P\_Nat);
- 24. Putnik G. (1988) Expert System for Tooling Selection, *M.Sc. Thesis*, Mechanical Engineering Faculty, University of Belgrade, Belgrade, Yugoslavia; (*(in Serbian)*; (MSc);
- 25. Spasic Z., Putnik G. (1989) Information flow in the data driven factories based on the CIM concept, in *Proceedings of the 8th Yugoslav Symposium "CIM in the Metalworking Industry Development Strategy"*, Cavtat, Yugoslavia; *(in Serbian)*; (P\_Nat);

- 26. Popovic N., Mircevska J., Jovanovic S., Putnik G. (1989) Bibliographical data base for new technologies, in *Proceedings of the 8th Yugoslav Symposium "CIM in the Metalworking Industry Development Strategy"*, Cavtat, Yugoslavia; *(in Serbian)*; (P\_Nat);
- 27. Djerkovic M., Toskovic N., Spasic Z., Putnik G. (1989) Data bank for standards and other technical regulative as a part of the knowledge base in factories based on the CIM concept, in *Proceedings of the 8th Yugoslav Symposium "CIM in the Metalworking Industry Development Strategy"*, Cavtat, Yugoslavia; *(in Serbian)*; (P\_Nat);
- 28. Putnik G., Spasic Z. (1989) Some problems of the entities classification in the CIM systems, in *Proceedings of the 18th Yugoslav Symposium "Production Control in Metalworking Industry"*, Cavtat, Yugoslavia; *(in Serbian)*; (P\_Nat);
- 29. Putnik G., Mikovic V. (1989) Analyses of the positioning accuracy with the photoelectric sensors, in *Proceedings of the 11th Yugoslav Symposium "NC-ROBOTS-FMS"*, Cavtat, Yugoslavia; (in Serbian); (P\_Nat);
- 30. Milacic V., Putnik G. (1989) AGV Elementary Movement Control Part I: Software Package for AGV Routine Problem, in *Proceedings of the 2nd International Conference on Robotics*, Dubrovnik (P\_Int);
- 31. Milacic V., Putnik G. (1989) AGV Elementary Movement Control Part II: Software Package for the Transportation Task Coding, in *Proceedings of the 2nd International Conference on Robotics*, Dubrovnik (P\_Int);
- 32. Milacic V., Putnik G. (1989) Logical Structure of Tooling System Design Fundamentals of Tooling Selection Expert System, in *Proceedings of the 6th Symposium on Information Control Problems in Manufacturing Technology INCOM 89.*, Madrid (P\_Int);
- 33. Spasic Z., Gligorijevic Z., Putnik G., Milacic V. (1990) YUMUG/JUPITER approach in the realization of the CIM/MAP/TOP center, in *Proceedings of the 9th Yugoslav Symposium "CIM in the Metalworking Industry Development Strategy"*, Cavtat, Yugoslavia; *(in Serbian)*; (P\_Nat);
- 34. Milacic V., Putnik G., Kokotovic B. (1990) Fundamentals of the FMS design, in *Proceedings of the 9th Yugoslav Symposium "CIM in the Metalworking Industry Development Strategy"*, Cavtat, Yugoslavia; *(in Serbian)*; (P\_Nat);
- 35. Putnik G., Cupic-Vojnovic P. (1990) Software package for the AGV movement control in the FMS, in *Proceedings of the 12th Yugoslav Symposium "NC-ROBOTS-FMS"*, Cavtat, Yugoslavia; (in Serbian); (P\_Nat);
- 36. Putnik G., Spasic Z. (1990) Some problems in the entities identification and coding, in *Proceedings of the 19th Yugoslav Symposium "Production Control in Metalworking Industry"*, Cavtat, Yugoslavia; *(in Serbian)*; (P\_Nat);
- 37. Putnik G. (1990) An overview of advanced systems for the entities coding, in *Proceedings of the* 19th Yugoslav Symposium "Production Control in Metalworking Industry", Cavtat, Yugoslavia; (in Serbian); (P\_Nat);

- 38. Putnik G., Gligorijevic Z. (1990) Information system of the JUPITER association, in *Proceedings* of the 19th Yugoslav Symposium "Production Control in Metalworking Industry", Cavtat, Yugoslavia; (in Serbian); (P\_Nat);
- 39\_1. Milacic V., Putnik G. (1990) Designer Expert Systems Tooling Selection Module, in *Proceedings* of the 22nd CIRP International Seminar on Manufacturing Systems, University of Twente, Enchede (P\_Int);
- 39\_2. Milacic V., Putnik G. (1991) Designer Expert Systems Tooling Selection Module, *The CIRP Journal of Manufacturing Systems*, Vol. 20., No. 1, pp 89-101, (ibid. 39\_1.) (J\_Int)
- 40. Spasic Z., Pilipovic M., Putnik G., Petrovic P. (1992) CIM modeling of the national companies and international standards, in *Faculty of Mechanical Engineering Transactions*, Belgrade, Yugoslavia,; Vol 21., No. 1., pp 18-22, *(in Serbian)*; (J\_Nat);
- 41. Putnik G. (1992) Inductive Inference and Computational Learning Theory with Applications, in *Proceedings of the Seminar "Intelligent Systems A Base for the New Industrial Revolution"*, Universidade Nova de Lisboa FCT, Industrial Engineering Department, Lisbon (P\_Int);
- 42. Putnik G., Milacic V. (1992) Knowledge Generation Method in Manufacturing Process Planning, in *Proceedings of the Seminar "Intelligent Systems A Base for the New Industrial Revolution"*, Universidade Nova de Lisboa FCT, Industrial Engineering Department, Lisbon (P\_Int);
- 43. Putnik G., Kokotovic B. (1992) DESIGNER Expert System CAPP module: State of the art and future development directions, in *Proceedings of the 20th Yugoslav Symposium "Production Control in Metalworking Industry"*, Kopaonik, Yugoslavia; (in Serbian rvio); (P\_Nat);
- 44. Putnik G., Kokotovic B. (1992) Knowledge base for the manufacturing process planning in DESIGNER-Expert System, in *Proceedings of the 11th Yugoslav Symposium "CIM in the Metalworking Industry Development Strategy"*, Kopaonik, Yugoslavia; (in Serbian); (P\_Nat);
- 45. Popovic Z., Putnik G., Dimitric M., Vucicevic M. (1992) An approach to design of pressing tool by computer, in *Proceedings of the 5th Yugoslav Symposium on CAD/CAM*, Kopaonik, Yugoslavia; (in Serbian); (P\_Nat);
- 46. Putnik G. (1993) Application of the inductive learning based on automata theory for tooling selection in manufacturing systems, *Dr.Sci. Thesis*, Mechanical Engineering Faculty, University of Belgrade, Belgrade, Yugoslavia; *(in Serbian)*; (DrSc);
- 47. Putnik G., Milacic V. (1994) Expert System for Tooling Selection in Manufacturing Process Planning Based on the Automata Theory, in MOVING TOWARD EXPERT SYSTEMS GLOBALLY IN THE 21ST CENTURY (Proceedings of the 2nd World Congress on Expert Systems), pp: 649-657 Lisbon (P\_Int);
- 48. Putnik G. (1994) Some Results of the Computational Machine Learning Theory and Vapnik-Chervonenkis Dimension of Concepts, *International Congress "Science, Mystic, Poetry, Conscience"*, Lisbon, (Abstract) (C\_Int);
- 49. Putnik G. D. (1994) Formal Definition of Cutting Tools by Automata Theory, in *Proceedings of the 25.th Yugoslav Conference on Production Engineering*, Belgrade, Yugoslavia; *(in Serbian)*; **(P\_Nat)**;

- 50. Putnik G. D., Kokotovic B. (1994) Knowledge Concepts Dimension and Sample Complexity for Learning in Inductive Learning Processes, in *Proceedings of the 20.th JUPITER Conference 13.th Yugoslav Symposium "CIM in Strategy of the Metalworking Industry Development"*, Belgrade, Yugoslavia; *(in Serbian)*; (P\_Nat);
- 51. Putnik G. D., Kokotovic B. (1994) Representation Classes for Knowledge Representation, in *Proceedings of the 20.th JUPITER Conference 22.nd Yugoslav Symposium "Production Control in Metalworking Industry"*, Belgrade, Yugoslavia; *(in Serbian)*; **(P\_Nat)**.
- 52. Putnik G. (1994) Application of PAC Learning Algorithm for Intelligent CAPP Systems, in *Proceedings of the 2nd European Congress on Intelligent Techniques and Soft Computing EUFIT 94*, Aachen (**P\_Int**);
- 53. Putnik G., Silva S. C. (1995) Knowledge Integrated Manufacturing Systems, in *Proceedings of the 1st World Congress on Intelligent Manufacturing Processes & Systems, Mayaguez*, CIRP sponsored, Puerto Rico (P\_Int);
- 54. Silva C. S., Putnik G. (1995) Project on Intelligent Manufacturing Cell at University of Minho, in Proceedings of the 1st World Congress on Intelligent Manufacturing Processes & Systems, CIRP sponsored, Mayaguez, Puerto Rico (P\_Int).
- 55. Silva C. S., Putnik G. (1995) Gestão de Produção Influência dos Meios Auxiliares na Flexibilidade Operatória dos Sistemas Flexiveis de Manufactura, Seminário COMMET Gestão de Produção em Tempo Real na Indústria do Vestuário, Universidade do Minho, Guimarães (C\_Int).
- 56. Putnik G., Silva C. S. (1995) One-Product-Integrated-Manufacturing, in "Balanced Automation Systems Architectures and design methods", Proceedings of BASYS '95, L. M. Camarinha-Matos, H. Afsarmanesh (Eds.), Chapman & Hall, pp 45-52 (B\_Chp-P\_Int);
- 57. Costa A. J., Putnik G. (1995) Aplicação de Tecnologia de Grupo para Planeamento de Introdução de Alterações de Produto em Produção, in *Proceedings of the 5<sup>as</sup> Jornadas Nacionais de Projecto, Planeamento e Produção Assistidos por Computador*, Guimarães, Portugal; (in Portuguese); (P\_Nat);
- 58. Martins P., Silva C. S., Putnik G. (1995) Modelo Semântico para a Representação de Sistemas de Informação para a Gestão da Produção, in *Proceedings of the 5<sup>as</sup> Jornadas Nacionais de Projecto, Planeamento e Produção Assistidos por Computador*, Guimarães, Portugal; (in Portuguese); (P\_Nat);
- 59. Lima M., Gomes P., Putnik G., Silva C. S., Monteiro J., Couto C. (1995) Teaching of Mechatronics at Minho University, in *"Education, Practice and Promotion of Computational Methods in Engineering Using Small Computers"*, (E.R. Arantes e Oliveira, Joao Bento; Eds.), Techno-Press, pp 1535-1541 (BChp-P\_Int).
- 60. Putnik G., Guimaraes P., Silva C. S. (1996) Virtual Enterprise/OPIM Concepts: An Institutionalization Framework, in "Balanced Automation Systems II Implementation challenges for anthropocentric manufacturing", Proceedings of BASYS '96, (L. M. Camarinha-Matos, H. Afsarmanesh; Eds.) Chapman & Hall, pp 391-400 (B\_Chp-P\_Int).

- 61. Putnik G. (1996) Request for Minimality in Design: Two Interpretations, in *Proceedings of the International Workshop on Theoretical Problems on Manufacturing Systems Design and Control*, Lisbon, Portugal **(P\_Int)**.
- 62. Devedzic V., Radovic D., Putnik G., Devedzic G. (1996) Systematic Development of Intelligent Manufacturing Systems, in *Proceedings of the International Workshop on Theoretical Problems on Manufacturing Systems Design and Control*, Lisbon, Portugal, (P\_Int).
- 63. Putnik G. (1996) The 2nd Definition of Mechatronics and Implications for a New Generation Robots, in *Proceedings of the MECHATRONICS '96 The 5th UK Mechatronics Forum International Conference with The 3rd International Conference on Mechatronics and Machine Vision in Practice M2VIP '96.*, Guimaraes, Portugal; (P\_Int).
- 64. Martins P., Silva S. C., Putnik G. D. (1996) Constraints Definition and Data Manipulation in Semantic Modeling, in *Proceedings of the SIE '96 1st International Symposium on Industrial Engineering in Yugoslavia*, Belgrade (P\_Int).
- 65. Putnik G. D. (1996) Towards Logical Structure of a Manufacturing Enterprise Organization Reengineering Process, in *Proceedings of the SIE '96 1st International Symposium on Industrial Engineering in Yugoslavia*, Belgrade (P\_Int).
- 66. Putnik G. D., Rosas J. A. (1997) Manufacturing System Simulation Model Synthesis: Towards Application of Inductive Inference, in "Reengineering for Sustainable Industrial Production", Proceedings of OE/IEEE/IFIP International Conference on Integrated and Sustainable Industrial Production ISIP '97, (L.M. Camarinha-Matos; Ed.), Chapman & Hall, pp 259-272 (B\_Chp-P\_Int);
- 67. Putnik G. D., Rosas J. A. (1997) LEARN A Prototype Software Tool for Machine Learning, in *Proceedings of the 2nd World Congress on Intelligent Manufacturing Processes and Systems*, Budapest, (L. Monostori; Ed.), Springer, pp 587-592 (B\_Chp-P\_Int)
- 68. Carvalho J. D. A., Putnik G. D. (1997) Scheduling Resource Elements, in *Proceedings of the 22nd ICC&IE Conference Computers & Industrial Engineering*, Cairo, (M. A. Younis, S. Eid; Eds.), pp 268-271 (P\_Int).
- 69. Putnik G. D. (1997) Towards OPIM System, in *Proceedings of the 22nd ICC&IE Conference Computers & Industrial Engineering*, Cairo, (M. A. Younis, S. Eid; Eds.), pp 675-678 (P\_Int).
- 70. Moreira F., Putnik G. D., Sousa R. (1998) Man-Machine Interface for Remote Programming and Control of NC Machine Tools at the Task Level: An Example, in Adolofson J., Karlsen J. (Eds.) *Mechatronics 98* (Proceedings of the 6th UK Mechatronics Forum International Conference, Skövde Sweden), Pergamon Elsevier Science Ltd., pp: 835-842 (B\_Chp-P\_Int).
- 71. Sousa R. M.; Putnik G.; Moreira J. F. (1998) Using Formal Description Technique Estelle for Manufacturing Systems Specification or Description, in Proceedings of the 4th International Seminar Intelligent Manufacturing Systems IMS'98, CIRP sponsored, Belgrade, Yugoslavia, pp: 49-58 (P\_Int).
- 72. Putnik G.; Sousa R. M.; Moreira J. F.; Carvalho D., Spasic Z.; Babic B. (1998) Distributed/Virtual Manufacturing System Cell: An Experimental Installation, in Proceedings of the 4th International Seminar Intelligent Manufacturing Systems IMS'98, CIRP sponsored, Belgrade, Yugoslavia, pp: 59-68 (P\_Int).

- 73. Petrovic P. B., Putnik G. D., Milacic V. R. (1998) An Optimization of Parallel Manipulator Sensor Redundancy from the Aspect of the Forward Kinematics Problem Solution, in Proceedings of The 5th International Conference on Mechatronics and Machine Vision in Practice M2VIP '98, Nanjing, China (P\_Int).
- 74. Rosas J. A., Putnik G. D. (1998) Contribution to Algebraic Approach for a CAD/CAPP Specification, in L. M. Camarinha-Matos, H. Afsarmanesh, V. Marik (Eds.) "Balanced Automation Systems III Intelligent systems for Manufacturing", (Proceedings of BASYS '98,), INTELLIGENT SYSTEMS FOR MANUFACTURING: MULTI-AGENT SYSTEMS AND VIRTUAL ORGANIZATION, Kluwer Academic Publishers, pp 557-566 (B\_Chp-P\_Int).
- 75. Sousa R., Putnik G. (1999) Formal description technique SDL for manufacturing systems specification and description, in Mertins K. et al. (Eds.) *Global Production Management*, Kluwer Academic Publishers, pp 449-456 (B\_Chp-P\_Int);
- 76. Babic B., Putnik G. (1999) A hierarchical model of distributed simulation of manufacturing systems, in Mertins K. et al. (Eds.) *Global Production Management*, Kluwer Academic Publishers, pp 25-33 (B\_Chp-P\_Int);
- 77. Cunha M., Putnik G., Ávila P. (1999) How do Enterprises Feel the New Engineering Paradigms Supported by Information and Communication Technologies, in *Proceedings of the 9<sup>th</sup> Annual Business Information and Technology Management Conference: Generative Futures BIT 99 International Conference*, UK (P\_Int);
- 78. Cunha M., Putnik G., Ávila P. (1999) Exploiting Information and Communication Technologies Potential An Enterprise Categorization Methodology, in *Proceedings of the 9<sup>th</sup> Annual Business Information and Technology Management Conference: Generative Futures BIT 99 International Conference*, UK **(P\_Int)**;
- 79. Cunha M., Putnik G., Ávila P. (1999) The Exploitation of Information and Communication Technologies the Portuguese State-of-the-Art, in *Proceedings of the 2nd International Conference on Managing Enterprises: Stakeholders, Engineering, Logistics and Achievement ME99*, Newcastle, Australia (P\_Int);
- 80. Avila P., Putnik G. D. (1999) Modelo de selecção abrangente aplicado à selecção de sistemas de máquinas ferramentas para um sistema de Produção Virtual/One-Product-Integrated-Manufacturing, in *Proceedings of "A Investigação no Ensino superior"*, Santarém, Portugal, pp.155-160 (P\_Nat);
- 81. Cunha, M. M., Putnik, G.D. (2000) Two Sides of the Same Coin: University and Industry face to the Information Society, in *Proceedings of the BIT World 2000 Business Information Technology Management: leveraging international opportunities*, México City (P\_Int);
- 82. Cunha, M.M., Putnik, G.D., Ávila, P. (2000) Towards Focused Markets of Resources for Agile / Virtual Enterprise Integration, in *Camarinha-Matos L. M. et al. (Eds.) Advances in Network Enterprises Virtual Organizations, Balanced Automation and Systems Integration,* Kluwer Academic Publishers, pp 15-24 (B\_Chp-P\_Int);
- 83. Cunha, M. M., Putnik, G.D. (2000) The Virtual Enterprise Paradigm and the new challenges for management accounting information systems, in *Proceedings of the 10th Annual BIT*

- Conference Business Information Technology Management BIT 2000, Manchester (P\_Int);
- 84. Avila P., Putnik G., Cunha M. (2000) Análise de complexidade do problema da selecção de sistemas de recursos para o projecto de empresas ágeis/virtuais, in *Proceedings do 2º Encontro Nacional do Colégio de Engenharia Mecânica*, Ordem dos Engenheiros, Coimbra, Dezembro 2000, pp.3.31-3.40 (P\_Nat)
- 85\_1. Lima M., Gomes M. P., Putnik G., Silva S. C., Monteiro J., Couto C. (2000) Mechatronics Education at the University of Minho: A summary of the present; perspectives for the future, in *Proceedings of the "MECHATRONICS '2000 The 7th Mechatronics Forum International Conference"*, Atlanta, PERGAMON, ISBN 0080437036 (P\_Int).
- 85\_2. Lima M., Gomes M. P., Putnik G., Silva S. C., Monteiro J., Couto C. (2002) Mechatronics Education at the University of Minho: A summary of the present; perspectives for the future, *MECHATRONICS The Science of Intelligent Machines An International Journal*, Pergamon., Vol. 12, Issue 2. (2002), pp. 295-302 (ibid. 86\_1.) (J\_Int)
- 86. Sousa R., Putnik G., Moreira F. (2000) Using Formal Description Technique ESTELLE for Manufacturing System Specification or Description, *International Journal of Production Engineering and Computers*, Vol. 3, No. 3, pp.41-47 (J\_Int);
- 87. Putnik G. (2001) BM\_Virtual Enterprise Architecture Reference Model, in A. Gunasekaran (Ed.) Agile Manufacturing: 21<sup>st</sup> Century Manufacturing Strategy, Elsevier Science Publ., pp.73-93 (B\_Chp);
- 88. Putnik G. D., Rosas J. A. (2001) Manufacturing System Design: Towards Application of Inductive Inference, in *Proceedings of the International Workshop on Emerging Synthesis IWES 01*, CIRP sponsored, Bled (P\_Int);
- 89. Sousa, R. M.; Putnik, G. D. (2001) On Manufacturing Systems Formalisms, in D. Hanus, J. Talácko (Eds) *Proceedings of the 16<sup>th</sup> International Conference on Production Research ICPR16*, ISBN 80-02-01438-3 **(P\_Int)**;
- 90. Cunha M., Putnik G., Gunasekaran A. (2001) Market of Resources as an Environment for Agile/Virtual Enterprise Dynamic Integration and Business Alignment, in A. Gunasekaran (Ed.) *Knowledge and Information Technology Management: Human and Social Perspectives*, Idea Group Publ., pp.169-190 (B\_Chp);
- 91. Leitão P., Restivo F., Putnik, G. D. (2001) A Multi-Agent Based Cell Controller, in *ETFA 2001: 8TH IEEE INTERNATIONAL CONFERENCE ON EMERGING TECHNOLOGIES AND FACTORY AUTOMATION, VOL 2, PROCEEDINGS*, pp463-470, ISBN 0-7803-7241-7 (P\_Int);
- 92. Romero F., Putnik G. D., Teixeira S.F.C.F., Carvalho M.S.B. (2001) Identification of Requirements for a University Course on Industrial Engineering: A Case Study, in *Proceedings of the 3<sup>rd</sup> International Symposium of Industrial Engineering SIE 2001*, Belgrade (P\_Int);
- 93. Putnik, G. D.; Romero F., (2001) A Contribution for Design of a University Course on Industrial Engineering, in *Proceedings of the 3<sup>rd</sup> International Symposium of Industrial Engineering SIE 2001*, Belgrade (P\_Int);

- 94. Putnik G. D. (2002) 'Part I Towards an OPIM system: manufacturing SME organization for the future', *Int. J. Networking and Virtual* Organizations, Vol. 1, No 2, pp.125-150 (J\_Int)
- 95. Putnik G. D. and da Silva Avila (2002) 'Part II Towards an OPIM system: results of the OPIM system design simulation and an applicability analysis', *Int. J. Networking and Virtual Organizations*, Volume 1, No 2, pp.151-169; (J\_Int)
- 96. Pithon A., Putnik G. D (2002) Team Work for Concurrent Engineering in Agile/Virtual Enterprises by BM\_Virtual Enterprise Architecture Reference Model, in *Camarinha-Matos L. M.* (Ed.) Collaborative Business Ecosystems and Virtual Enterprises, INTERNATIONAL FEDERATION FOR INFORMATION PROCESSING, Volume: 85, Kluwer Academic Publishers, pp 489-496 (ISBN 1-4020-7020-9) (B\_Chp-P\_Int);
- 97. Cunha M. M., Putnik G. D., Ávila P. (2002) Discussion on Requirements for Agile/Virtual Enterprises Reconfiguration Dynamics: The Example of the Automotive Industry, in *Camarinha-Matos L. M. (Ed.) Collaborative Business Ecosystems and Virtual Enterprises, INTERNATIONAL FEDERATION FOR INFORMATION PROCESSING*, Volume: 85, Kluwer Academic Publishers, pp 527-534 (ISBN 1-4020-7020-9) (B\_Chp-P\_Int);
- 98. Ávila P, Putnik G. D., Cunha M. M. (2002) Brokerage Function in Agile/Virtual Enterprise Integration A Literature Review, in *Camarinha-Matos L. M. (Ed.) Collaborative Business Ecosystems and Virtual Enterprises, INTERNATIONAL FEDERATION FOR INFORMATION PROCESSING*, Volume: 85, Kluwer Academic Publishers, pp 65-72 (ISBN 1-4020-7020-9) (B\_Chp-P\_Int);
- Putnik G. D., Lima M. A. S. (2002) Concurrent Engineering Based Mold Development, in Proceedings of the Annual Technical Conference for the Plastics Industry – ANTEC 2002, Society of Plastics Engineers, San Francisco, pp. 2992-2995 (P\_Int);
- 100. Sousa R., Putnik G.D. (2002) Manufacturing Systems Specification: From General Systems Theory to SDL Applications, in *Ferreira, J. J. P. (Ed.) Proceedings of the 18<sup>th</sup> International Conference on CAD/CAM, Robotics and Factories of the Future CARs&FOF 2002*, INESC Porto, Porto, pp. 91-98, ISBN 972-95194-5-5 **(P\_Int)**;
- 101. Putnik G. D., Lima M., Lima P. (2002) Implementing and Improving the Concurrent Engineering Applications: The Case of a Mould Making Company, in Ferreira, J. J. P. (Ed.) Proceedings of the 18<sup>th</sup> International Conference on CAD/CAM, Robotics and Factories of the Future CARs&FOF 2002, INESC Porto, Porto, pp. 117-125, ISBN 972-95194-5-5 (P\_Int);
- 102. Sousa R. M., Putnik G.D. (2002) Contribution to a General Systems Formalization, in *Erden A. et al. (Eds.) Proceedings of the 6<sup>th</sup> International Conference on Mechatronic Design and Modeling MDM 2002*, Cappadocia, pp 1-16, ISBN 975-429-186-1 **(P\_Int)**;
- 103. Putnik G.D., Spasic Z., Sousa R. M., Naldinho J. (2002) Systems Theory Application for Manufacturing Systems or Enterprise Integration Modeling, in *Erden A. et al. (Eds.) Proceedings of the 6<sup>th</sup> International Conference on Mechatronic Design and Modeling MDM 2002*, Cappadocia, pp 31-46, ISBN 975-429-186-1 (P\_Int);
- 104. Carvalho D., Putnik G. D., Cunha M. (2002) Infrastructures for Virtual Enterprises, in *Baykasoglu A., Dereli T. (Eds.) Proceedings of 2nd International Conference on Responsive Manufacturing*, Gaziantep, Turkey, pp. 483-487, ISBN 975-7375-33-0 (P\_Int);

- 105. Cunha M. M., Putnik G. D., Carvalho J. D., Ávila P. (2002) A Review on Environments Supporting the Virtual Enterprise Paradigm, in *Marik V., Camarinha-Matos L. M., Afsarmanesh H. (Eds.) Knowledge and Technology Integration in Production and Services Balancing Knowledge and Technology in Product and Service Life Cycle*, Kluwer Academic Publishers, pp 133-140 (ISBN 1-4020-7211-2) (B\_Chp-P\_Int);
- 106. Putnik G. D, Pithon A. (2002) An Activity-Based Model of Concurrent Engineering System, in Marik V., Camarinha-Matos L. M., Afsarmanesh H. (Eds.) Knowledge and Technology Integration in Production and Services Balancing Knowledge and Technology in Product and Service Life Cycle, Kluwer Academic Publishers, pp 39-48 (ISBN 1-4020-7211-2) (B\_Chp-P\_Int);
- 107. Guerreiro A., Putnik G. D., Guimarães-Rodrigues A. (2002) Simulação Distribuída para Projecto e Operação de Empresas Virtuais: Arquitectura e Ambiente, in *Proceedings of the 10<sup>th</sup> Congress of APDIO on Operations Research IO 2002*, Guimaraes, p. 49, (Abstract) (C\_Nat); (10º Congresso da APDIO Investigação Operacional IO 2002)
- 108. Carvalho D., Putnik G. D., Leão C. (2002) Geração de sistemas produtivos autónomos como unidades integradoras de empresas virtuais, in *Proceedings of the 10<sup>th</sup> Congress of APDIO on Operations Research IO 2002*, Guimaraes, p. 50, (Abstract) (C\_Nat); (10º Congresso da APDIO Investigação Operacional IO 2002)
- 109. Putnik G. D., Carvalho D. (2002) Aplicação de Investigação Operacional em Empresas Virtuais: Uma análise e Revisão Bibliográfica, in *Proceedings of the 10<sup>th</sup> Congress of APDIO on Operations Research IO 2002*, Guimaraes, p. 51, (Abstract) (C\_Nat); (10º Congresso da APDIO Investigação Operacional IO 2002)
- 110. Ávila P, Putnik G. D., Cunha M. M. (2002) Uma Plataforma para Aplicação de Algoritmos de Selecção de Recursos que Integram as Empresas Virtuais, in *Proceedings of the 10<sup>th</sup> Congress of APDIO on Operations Research IO 2002*, Guimaraes, p. 52, (Abstract) (C\_Nat); (10º Congresso da APDIO Investigação Operacional IO 2002)
- 111. Putnik G. D., Costa J. M. (2002) Feature Based Mould Design and Manufacturing, in Proceedings of the Rapid Product Development – Advanced Solutions and Development – RPD 2002, CENTIMFE, Marinha Grande (P\_Int);
- 112. Putnik G. D., Costa J. M. (2002) Computer Aided Process Planning for Mold Manufacturing: An Activity-Based Model, in *Proceedings of the Rapid Product Development Advanced Solutions and Development RPD 2002*, CENTIMFE, Marinha Grande (P\_Int);
- 113. Lima M., Putnik G. D. (2002) Concurrent Engineering Application for Mould Design and Manufacturing, in *Proceedings of the Rapid Product Development Advanced Solutions and Development RPD 2002*, CENTIMFE, Marinha Grande (P\_Int);
- 114. Spasic Z., Putnik G., Pilipovic M. (2002) Business Process Reengineering for Industry in Transition, in *Dasic P., Radovanovic M. (Eds.) Proceedings of the 2<sup>nd</sup> International Conference on Research and Development in Mechanical Industry RaDMI 2002*, Vrnjacka Banja, pp 5-10 (P\_Int);
- 115. Cunha M. M., Putnik G. D., Carvalho D. (2002) Infrastructures to support Virtual Enterprise Integration, in *Proceedings of the 12th Annual BIT Conference Business Information Technology Management BIT 2002*, Manchester (P\_Int);

- 116. Cunha M. M., Putnik G. D. (2003) Market of Resources versus E-based Traditional Virtual Enterprise Integration Part I: A Cost Model Definition, in Putnik G., Gunasekaran A. (Eds.) Business Excellence I Performance Measures, Benchmarking and Best Practices in New Economy, University of Minho, Guimarães, pp 664-669 (ISBN 972-8692-08-0) (B\_Chp-P\_Int);
- 117. Cunha M. M., Putnik G. D. (2003) Market of Resources *versus* E-based Traditional Virtual Enterprise Integration Part II: A Comparative Cost Analysis, in *Putnik G., Gunasekaran A.* (Eds.) Business Excellence I Performance Measures, Benchmarking and Best Practices in New Economy, University of Minho, Guimarães, pp 670-675 (ISBN 972-8692-08-0) (B\_Chp-P\_Int);
- 118. Ávila P., Putnik G. D., Cunha M. M. (2003) A Contribution for the Classification of Resources Selection Algorithms for Agile/Virtual Enterprises Integration, in *Putnik G., Gunasekaran A. (Eds.) Business Excellence I Performance Measures, Benchmarking and Best Practices in New Economy*, University of Minho, Guimarães, pp 676-681 (ISBN 972-8692-08-0) (B\_Chp-P\_Int);
- 119. Silva J. P., Putnik G. D., Cunha M. M. (2003) Technologies for Virtual Enterprise Integration, in *Putnik G., Gunasekaran A. (Eds.) Business Excellence I Performance Measures, Benchmarking and Best Practices in New Economy*, University of Minho, Guimarães, pp 706-711 (ISBN 972-8692-08-0) (B\_Chp-P\_Int);
- 120. Spasic Z. A., Putnik G. D., Quarrie S. A. (2003) University & Industry: Common Business Excellence, in *Putnik G., Gunasekaran A. (Eds.) Business Excellence I Performance Measures, Benchmarking and Best Practices in New Economy*, University of Minho, Guimarães, pp 482-487 (ISBN 972-8692-08-0) (B\_Chp-P\_Int);
- 121. Pithon A., Putnik G. D. (2003) Concurrent Engineering based on BM\_VEARM for Development of Infrastructure for Distance Learning, in Cha J., Jardim-Gonçalves R., Steiger-Garção A. (Eds.) Concurrent Engineering: Advanced Design, Production and Management systems, A. A: Balkema Publishers, Swets & Zeitlinger B.V., Lisse, The Netherlands, pp 931-936 (ISBN 90-5809-622-X) (B\_Chp-P\_Int);
- 122. Cunha M. M., Putnik G. D. (2003) Agile/Virtual Enterprise Enablers: A Comparative Analysis, in *Proceedings of Group Technology/Cellular Manufacturing World Symposium GT\_CM 2003*, Columbus, Ohio **(P\_Int)**;
- 123. Ávila P., Putnik G. D., Cunha M. M. (2003) Development of the Organizational Model for the Resources Systems Selection for Agile/Virtual enterprise Integration, in *Proceedings of Group Technology/Cellular Manufacturing World Symposium GT\_CM 2003*, Columbus, Ohio (P\_Int);
- 124. F. M. Eijnatten, G. D: Putnik (2004) Chaordic System Thinking for learning organizations, in *The Learning Organization An International Journal*, Publisher: Emerald, Volume: 11, Number: 6, pp: 415-417, Month: October, Year: 2004. (J\_Int)
- 125. G. D: Putnik, F. M. Eijnatten (2004) Chaordic System Thinking for learning organizations: reflections and some suggestions for use, in *The Learning Organization An International Journal*, Publisher: Emerald, Volume: 11, Number: 6, pp: 491-494, Month: October, Year: 2004. (J\_Int)

- 126. F. M. Eijnatten, G. D: Putnik (2004) Chaos, complexity, learning and the learning organizations: towards a chaordic enterprise, in *The Learning Organization An International Journal*, Publisher: Emerald, Volume: 11, Number: 6, pp. 418-429, Month: October, Year: 2004. (J\_Int)
- 127. Cunha, M. M., & Putnik, G. D. (2004) Trends and Solutions in Virtual Enterprise Integration, in *Tekhné Review of Polytechnical Studies*, Publisher: IPCA (Instituto Politécnico de Cavado e Ave), Volume: 1, Number: 1, pp: 143-164, Year: 2004. (J\_Nat)
- 128. Sousa R., Putnik G. (2004) "A Formal Theory of BM Virtual Enterprises Structures" in *Camarinha-Matos, L. M.; (Ed.), "Emerging Solutions for Future Manufacturing Systems"*, Vienna: Springer, 2004. ISBN 0-387-22828-4, pp 315-322. (B\_Chp-P\_Int)
- 129. Ávila P., Putnik G. D., Cunha M. M. (2004) A Contribution for the Development of New Resources Selection Models for the Agile/Virtual Enterprises, Congress: SymOrg 2004 IX International Symposium, Local: Belgrade / Zlatibor, Serbia, June 2004. (P\_Int);
- 130. Cunha M. M., & Putnik G. D: (2004) Trends and Solutions in Agile/Virtual Enterprise Integration, IRMA 2004 Information Resources Management Association: *Innovations Through Information Technology, Vols 1 and 2*, pp: **1423-1425** (**P\_Int**);
- 131. Putnik G. D: (2004) Virtual Enterprise as a "flow" enterprise, Fourth Annual Meeting of the European Chaos and Complexity in Organizations Network ECCON ECCON 2004, Driebergen, Netherlands, Octuber 2004. (P\_Int);
- 132\_1. Cunha, M. M., Putnik, G. D., & Ávila, P. (2004) Virtual Enterprises' Extended Life Cycle, in *Proceedings of IX International Symposium SymOrg 2004*, Faculty of Organizational Sciences, University of Belgrade, Belgrade / Zlatibor, Serbia, June 2004. (P\_Int);
- 133. Cunha1M. M., Putnik G. D., Ávila P. (2004) A Dinâmica da Reconfiguração no Modelo Agile/Virtual Enterprise um factor determinante no alinhamento estratégico com o mercado, Proceedings das "4as Jornadas Jornadas Politétnicas de Engenharia JPE 2004", Instituto Superior de Engenharia do Porto, Porto, Nobembro 2004, pp 216-224 (P\_Nat);
- 134. Ávila P., Putnik G. D., Lopes M., Fernandes A. A., Cavaco I. (2004) Contribuição da ISO 9001: 2000 na Criação e Implementação de Quantificadores de Desempenho para as Pequenas e Médias Empresas, Proceedings das "4as Jornadas Jornadas Politétnicas de Engenharia JPE 2004", Instituto Superior de Engenharia do Porto, Porto, Novembro 2004, pp 299-307 (P\_Nat);
- 135. Cunha M. M., Oliveira E., Putnik G. D. (2004) Contribution of the Agent-based Technology to Support Virtual Enterprise Integration, Proceedings da "5a Conferência da Associação Portuguesa de Sistemas de Informação CAPSI," Associação Portuguesa de Sistemas de Informação (APSI), Novembro 2004 (P\_Nat);
- 136. Brito M. A., Putnik G., Cunha M. M. (2004) Empresas Virtuais: Como facilitar a sua reconfiguração e operação, Proceedings da "5a Conferência da Associação Portuguesa de Sistemas de Informação CAPSI, Associação Portuguesa de Sistemas de Informação (APSI), Novembro 2004 (P\_Nat);

- 137. Putnik G. D. (2004) The Science of Chaordic Systems: Is it Possible, and in Which Way?, Fourth Annual Meeting of the European Chaos and Complexity in Organisations Network ECCON ECCON 2004, Local: Driebergen, Netherlands, Dias: 22-23, Month: October, Year: 2004. (Abstract) (C\_Int)
- 138. Putnik, G. D., Cunha, M. M., Sousa, R., Ávila, P. (2005) Virtual Enterprise Integration: Challenges of a New Paradigm, in Putnik G., Cunha M. M. (Eds.) *Virtual Enterprise Integration: Technological and Organizational Perspectives*, IDEA Group Publishing, Hershey, PA, USA, pp: 1-30 (ISBN: 1-59140-405-3; ISBN: 1-59140-406-1; eISBN: 1-59140-407-X) (B\_Chp);
- 139. Cunha, M. M., Putnik, G. D. (2005) Business Alignment Requirements and Dynamic Organizations, in Putnik G., Cunha M. M. (Eds.) *Virtual Enterprise Integration: Technological and Organizational Perspectives*, IDEA Group Publishing, Hershey, PA, USA, pp: 78-101 (ISBN: 1-59140-405-3; ISBN: 1-59140-406-1; eISBN: 1-59140-407-X) (B\_Chp);
- 140. Putnik, G. D., Cunha, M. M., Sousa, R., Ávila, P. (2005) BM\_ Virtual Enterprise: A Model for Dynamics and Virtuality, in Putnik G., Cunha M. M. (Eds.) *Virtual Enterprise Integration: Technological and Organizational Perspectives*, IDEA Group Publishing, Hershey, PA, USA, pp: 124-143 (ISBN: 1-59140-405-3; ISBN: 1-59140-406-1; eISBN: 1-59140-407-X) (B\_Chp);
- 141. Putnik, G. D., Cunha, M. M., *Gunasekaran A.*, Ávila, P. (2005) Market of Resources as a Virtual Enterprise Integration Enabler, in Putnik G., Cunha M. M. (Eds.) *Virtual Enterprise Integration: Technological and Organizational Perspectives*, IDEA Group Publishing, Hershey, PA, USA, pp: 145-165 (ISBN: 1-59140-405-3; ISBN: 1-59140-406-1; eISBN: 1-59140-407-X) (B\_Chp);
- 142. Ávila, P., Putnik, G. D., Cunha, M. M. (2005) Broker Performance for Agile/Virtual Enterprise Integration, in Putnik G., Cunha M. M. (Eds.) *Virtual Enterprise Integration: Technological and Organizational Perspectives*, IDEA Group Publishing, Hershey, PA, USA, pp: 166-185 (ISBN: 1-59140-405-3; ISBN: 1-59140-406-1; eISBN: 1-59140-407-X) (B\_Chp);
- 143. Cunha, M. M., Putnik, G. D. Silva J. (2005) Information Technology Infrastructure and Solutions, in Putnik G., Cunha M. M. (Eds.) *Virtual Enterprise Integration: Technological and Organizational Perspectives*, IDEA Group Publishing, Hershey, PA, USA, pp: 351-365 (ISBN: 1-59140-405-3; ISBN: 1-59140-406-1; eISBN: 1-59140-407-X) (B\_Chp);
- 144. Cunha, M. M., Putnik, G. D. (2005) Market of Resources for Agile/Virtual Enterprise Integration, in Khosrow-Pour M. (Ed.) *Encyclopedia of Information Science and Technology (Volume 5)*, IDEA Group Publishing, Hershey, PA, USA, pp: 1891-1898 (ISBN: 1-59140-553-X) (B\_Chp);
- 145. Cunha, M. M., Putnik, G. D. (2005) Business Alignment in Agile/virtual Enterprise Integration, in Khosrow-Pour M. (Ed.) *Advanced Topics in Information Resources Management (Volume 4)*, IDEA Group Publishing, Hershey, PA, USA, pp: 26-54 (ISBN: 1-59140-465-7) (B\_Chp);
- 146\_1. Cunha, M. M., Putnik, G. D. (2005) Market of Resources as Knowledge Management Enabler in Virtual Enterprises, In Coakes E. & Clarke S. (Eds.) Encyclopedia of Communities of Practice in Information and Knowledge Management, IDEA Group Publishing, Hershey, PA, USA, pp: 375-385 (ISBN 1-59140-556-4 (hc); ISBN 1-59140-558-0 (ebook)) (B\_Chp);
- 146\_2. Cunha, M. M., Putnik, G. D. (2008) Market of Resources as Knowledge Management Enabler in Virtual Enterprises, In Jennex M. E. (Ed.) Knowledge Management: Concepts, Methodologies, Tools, and Applications, Information Science reference, IGI Global, Hershey, PA, USA, pp: 2699-2711 (ISBN 978-1-59904-933-5) (B\_Chp);

- 147. Pithon A.J.C., Putnik G.D. (2005) BM\_Virtual Enterprise Architecture Reference Model for Concurrent Engineering processes performance improvement: An experiment, in Pham D. T., Eldukhri E. E., Soroka A. J. (Eds.) *Intelligent Production Machines and Systems (Proceedings of the 1st I\*PROMS Virtual International Conference)*, Elsevier, Amsterdam, pp: 61-66, (ISBN-10: 0-080-44730-9) (B\_Chp-P\_Int);
- 148. Eijnatten F. M. van, Putnik G. D. (2005) A Different View of Learning and Knowledge Creation in Collaborative Networks; in Luis Camarinha-Matos, Hamideh Afsarmanesh, Angel Ortiz (Eds) Collaborative Networks and Their Breeding Environments (Proceedings of PRO-VE'05 IFIP TC 5 WG 5.5 Sixth IFIP Working Conference on VIRTUAL ENTERPRISES, 26-28 September 2005, Valencia, Spain), INTERNATIONAL FEDERATION FOR INFORMATION PROCESSING, Volume: 186, Springer, ISBN 0-387-28259-9. (B\_Chp-P\_Int);
- 149. Ávila P., Putnik G. D., Cunha M. M., Brito M. (2005) The Exposition and the Implication of the Different Selection Methods for the Resources Systems Selection for Agile / Virtual Enterprises Integration, in Vickery J. F. (Ed.) Challenges Facing Manufacturing (Proceedings of The 22nd International Manufacturing Conference IMC22), Institute of Technology Tallaght, Dublin, Ireland, ISBN 0-9551218-0-9. (B\_Chp-P\_Int);
- Avila P., Putnik G., Madureira A. (2005) Analysis of the Resources System Selection Algorithms for Agile/Virtual Enterprises Integration Through Genetic Algorithms, WSEAS Transactions on Information Science and Applications (ISSN 1790-0832), Volume 2, Issue 5, May 2005, pp: 592-599. (J\_Int)
- 132\_2. Cunha M. M., Putnik G., Avila P (2004) Virtual Enterprises' Extended Lifecycle, *MANAGEMENT* (ISSN 0354-8635), Faculty of Organizational Sciences Belgrade, Volume 9, Number 34, pp. 4-13. (J\_int)
- 151. Cunha M. M., Putnik G. (2006) Identification of the domain of opportunities for a Market of Resources for Virtual Enterprise integration, *International Journal of Production Research*, Taylor & Francis, UK, Vol. 44, No.12, pp: 2277-2298 (J\_Int)
- 152. Cunha M. M., Putnik G. (2006) On the dynamics of Agile/Virtual Enterprise reconfiguration, *Int. J. Networking and Virtual Organizations*, InderScience, Vol. 3, Issue 1, pp.102-123 (J\_Int)
- 153. Gunasekaran A., Putnik G. D. (2006) Performance measures, benchmarking and best practices in the new economy (Editorial), in *Benchmarking: An International Journal*, Publisher: Emerald, Volume: 13, Issue: 1/2, , Year: 2006. (J\_Int)
- 154. Pithon A.J.C., Putnik G.D. (2006) BM\_Virtual Enterprise Architecture Reference Model for Concurrent Engineering and product improvement: An experiment, in Pham D. T., et al. (Eds.) Intelligent Production Machines and Systems (Proceedings of the 2nd I\*PROMS Virtual International Conference), Elsevier, Amsterdam, pp: 59-64, ISBN-13: 978-0-08-045157-2, ISBN-10: 0-08-045157-8 (B\_Chp-P\_Int);
- 155. Gonçalves P., Putnik G.D., Cunha M., Sousa R. (2006) User-interface Architectures for VE Dynamic Reconfiguration: An Initial Analysis, in Pham D. T., et al. (Eds.) *Intelligent Production Machines and Systems (Proceedings of the 2nd I\*PROMS Virtual International Conference)*, Elsevier, Amsterdam, pp: 150-157, ISBN-13: 978-0-08-045157-2, ISBN-10: 0-08-045157-8 (B\_Chp-P\_Int);

- 156\_1. Avila P., Putnik G., Cunha M. M., Pires A. (2006) Broker and Market of Resources as Organizational Mechanisms for sustainability of Resources Selection Processes in Agile / Virtual Enterprises, in *Proceedings of X International Symposium SymOrg 2006*, Faculty of Organizational Sciences, University of Belgrade, Belgrade / Zlatibor, Serbia, June 2006. (P\_Int)
- 157. Putnik G.D., Sousa R. (2006) On Formal Theories And Formalisms for Virtual Enterprises, in Shen W. (et al. ?) (Eds.) (Proceedings of the BASYS 2006 7th IFIP International Conference on INFORMATION TECHNOLOGY FOR BALANCED AUTOMATION SYSTEMS in Manufacturing and Services), Information Technology for Balanced Manufacturing Systems Book Series: INTERNATIONAL FEDERATION FOR INFORMATION PROCESSING Volume: 220, Springer, pp: 223-232, (ISBN-10: 0-387-36590-7; ISBN-13: 9780-3870-36590-7; eISBN: 10: 0-387-36590-X; ISSN: 1571—5736 / 1861-2288 (Internet)) (B\_Chp-P\_Int);
- 158. Cunha M., Putnik G.D. (2006) Market of Resources as an Enabler of (Inter-) Organizational Reconfiguration Dynamics, in Shen W. (et al. ?) (Eds.) (Proceedings of the BASYS 2006 7th IFIP International Conference on INFORMATION TECHNOLOGY FOR BALANCED AUTOMATION SYSTEMS in Manufacturing and Services), Information Technology for Balanced Manufacturing Systems Book Series: INTERNATIONAL FEDERATION FOR INFORMATION PROCESSING Volume: 220, Springer, pp: 141-148, (ISBN-10: 0-387-36590-7; ISBN-13: 9780-3870-36590-7; eISBN: 10: 0-387-36590-X; ISSN: 1571—5736 / 1861-2288 (Internet)) (B\_Chp-P\_Int);
- 159\_1. Putnik G.D., Sluga A. (2006) Reconfigurability of Manufacturing Systems for Agility Implementation Part I: Requirements and Principles, in Cunha P. F., Maropoulos P. G. (Eds.) Proceedings of the3rd International CIRP Conference on Digital Enterprise Technology DET 2006 (September 18-20, 2006), Setúbal, Portugal (P\_Int);
- 160\_1. Cunha M., Sluga A., Butala P. (2006) Reconfigurability of Manufacturing Systems for Agility Implementation Part II: Two Architectures, in Cunha P. F., Maropoulos P. G. (Eds.) Proceedings of the3rd International CIRP Conference on Digital Enterprise Technology DET 2006 (September 18-20, 2006), Setúbal, Portugal (P\_Int);
- 159\_2. Putnik G.D., Sluga A. (2006) Reconfigurability of Manufacturing Systems for Agility Implementation Part I: Requirements and Principles, in Cunha P. F., Maropoulos P. G. (Eds.) *Digital Enterprise Technology Perspectives and Future Challenges*, Springer, pp. 91-98 (ISBN-13: 978-0-387-49863-8) **(B\_Chp-P\_Int)**;
- 160\_2. Putnik G.D., Sluga A., Butala P. (2006) Reconfigurability of Manufacturing Systems for Agility Implementation Part II: Two Architectures, in Cunha P. F., Maropoulos P. G. (Eds.) *Digital Enterprise Technology Perspectives and Future Challenges*, Springer, pp. 99-106 (ISBN-13: 978-0-387-49863-8) (B\_Chp-P\_Int);
- 161. Cunha M., Putnik G.D. (2006). A Changed Economy with Unchanged Universities? A contribution to the University of the Future, *Int. J. of Distance Education Technologies (IJDET)-An Official Publication of the Information Resources Management Association*, IGI Global, Vol. 5, Issue 4, pp 5-25; ...... (J\_Int);
- 156\_2. Avila P., Putnik G., Cunha M. M., Pires A. (2006) Broker and Market of Resources as Organizational Mechanisms for sustainability of Resources Selection in Virtual Enterprises, in *Int. J. MANAGEMENT Journal for Management Theory and Practice*, Faculty Of Organizational Sciences, Belgrade, Vol. 43, pp: 39-45 (J\_Int)

- 162. Butala P., Sluga A., Putnik G.D. (2006) Reconfigurable Manufacturing Network: an Educational Test-bed, in *Annals of DAAAM for 2006 & Proceedings of the 17th International DAAAM Symposium INTELLIGENT MANUFACTURING & AUTOMATION: FOCUS ON MECHATRONICS AND ROBOTICS*, PP: 71-72 (P\_Int)
- 163. Cunha M., Putnik G., Perreira Silva J., Santos J. P. (2007) Technologies to support the Market of Resources as an infrastructure for Agile/Virtual Enterprise integration, in Protogeros N (Ed.) Agent and Web Services Technologies in Virtual Enterprises, Information Science Reference, Information Science Reference, IGI Global, Hershey, USA, pp 76-96 (ISBN- 978-1-59904-648-8) (B\_Chp);
- 164. Gonçalves P., Putnik G., Cunha M. (2007) Functional requirements for user-interface architectures for Virtual Enterprise dynamic reconfiguration, in Bartolo P et al. (Eds.) Virtual and Rapid Manufacturing Advanced Research in Virtual and Rapid Prototyping, Taylor & Francis Group, London, UK, pp 703-708 (ISBN-13: 978-0-415-41602-3) (B\_Chp-P\_Int);
- 165. Eijnatten F., Putnik G., Sluga A. (2007) Chaordic Systems Thinking for Novelty in Contemporary Manufacturing, *CIRP Annals*, Vol 56, No 1, pp. 447-450 (J\_Int)
- 166. Putnik G.D., Cardeira C., Leitão P., Restivo F., Santos J., Sluga A., Butala P. (2007) Towards Ubiquitous Production Systems and Enterprises, in 2007 IEEE INTERNATIONAL SYMPOSIUM ON INDUSTRIAL ELECTRONICS, PROCEEDINGS, VOLS 1-8 Pages: 3203-3208, Published: 2007 (P\_Int)
- 167. Pires A., Putnik G. D., Ávila P. (2007) The Potentialities of the Application of Value Analysis, in Phelan J. (Ed.) *Manufacturing: Focus on the Future*, (Proceedings of the IMS24 The 24<sup>th</sup> International Manufacturing Conference, 29ht-30<sup>th</sup> August 2007, Ireland), (Volume 2), pp 745-751 (ISBN 0-9556468-0-5) (B\_Chp-P\_Int);
- 168. Carvalho R., Putnik G. D. (2007) Chaordic Systems Thinking for Concurrent Engineering, in *Proceedings of ECCON 07*, Bergen an Zee, The Netherlands (P\_Int)
- 169. Putnik G. D., Cunha M. M., Cortes B. C., Avila P. S. (2007) Enterprise Reconfiguration Dynamics and Business Alignment, in Cunha M. M., Cortes B. C., Putnik G. D. (Eds.) *Adaptive Technologies and Business Integration: Social, Managerial, and Organizational Dimensions*, Idea Group Reference, Idea Group Inc., pp. 1-32 (ISBN 1-59904-048-4 (hc), ISBN 1-59904-048-4 (e-book)) (B\_Chp);
- 170. Cunha M. M., Putnik G. D., Ávila P. S. (2007) Environments for Virtual Enterprise Integration, in Goran D. Putnik, Maria Manuela Cunha (Eds) *Knowledge and Technology Management in Virtual Organizations: Issues, Trends, Opportunities and Solutions*, Idea Group Publishing, Idea Group Inc., pp. 1-23 (ISBN 1-59904-165-0 (hc), ISBN 1-59904-166-9 (softcover), ISBN 1-59904-167-7 (e-book)) (B\_Chp);
- 171. Cunha M. M., Putnik G. D., Miranda E. (2007) The Agile and Virtual University, in Putnik G. D., Cunha M. M. (Eds) *Encyclopedia of Networked and Virtual Organizations*, Idea Group Reference, Idea Group Inc., pp. 26-34 (ISBN-10: 1-59904-885-X, ISBN-13: 978-1-59904-885-7) (B\_Chp);
- 172. Pithon A. J. C., Putnik G. D. (2007) BM\_VE Architecture Reference Model for Concurrent Engineering, in Putnik G. D., Cunha M. M. (Eds) *Encyclopedia of Networked and Virtual*

- *Organizations*, Idea Group Reference, Idea Group Inc., pp. 74-81 (ISBN-10: 1-59904-885-X, ISBN-13: 978-1-59904-885-7) (**B\_Chp**);
- 173. Ávila P., Putnik G. D., Cunha M. M., Madureira A. (2007) Broker's Direct Cost and Time Variables and Expressions, in Putnik G. D., Cunha M. M. (Eds) *Encyclopedia of Networked and Virtual Organizations*, Idea Group Reference, Idea Group Inc., pp. 82-91 (ISBN-10: 1-59904-885-X, ISBN-13: 978-1-59904-885-7) (B\_Chp);
- 174. Marri H.B., Gunasekaran A., Irani Z., Putnik G.D. (2007) Collaborative Alliance for the Implementation of Computer Integrated Manufacturing in Small and Medium Enterprises, in Putnik G. D., Cunha M. M. (Eds) *Encyclopedia of Networked and Virtual Organizations*, Idea Group Reference, Idea Group Inc., pp. 210-218 (ISBN-10: 1-59904-885-X, ISBN-13: 978-1-59904-885-7) (B\_Chp);
- 175. Cunha M. M., Putnik G. D. (2007) Market of Resources: A Cost and Effort Model, in Putnik G. D., Cunha M. M. (Eds) *Encyclopedia of Networked and Virtual Organizations*, Idea Group Reference, Idea Group Inc., pp. 339-346 (ISBN-10: 1-59904-885-X, ISBN-13: 978-1-59904-885-7) (B\_Chp);
- 176. Cunha M. M., Putnik G. D. (2007) Environments for VE Integration, in Putnik G. D., Cunha M. M. (Eds) *Encyclopedia of Networked and Virtual Organizations*, Idea Group Reference, Idea Group Inc., pp. 492-500 (ISBN-10: 1-59904-885-X, ISBN-13: 978-1-59904-885-7) (B\_Chp);
- 177. Cunha M. M., Putnik G. D., Ávila P. (2007) Market of Resources for Virtual Enterprise Integration, in Putnik G. D., Cunha M. M. (Eds) *Encyclopedia of Networked and Virtual Organizations*, Idea Group Reference, Idea Group Inc., pp. 886-893 (ISBN-10: 1-59904-885-X, ISBN-13: 978-1-59904-885-7) (B\_Chp);
- 178. Cunha M. M., Putnik G. D., Simões R. (2007) Market of Resources for Health Care Teleservices Management, in Putnik G. D., Cunha M. M. (Eds) *Encyclopedia of Networked and Virtual Organizations*, Idea Group Reference, Idea Group Inc., pp. 894-898 (ISBN-10: 1-59904-885-X, ISBN-13: 978-1-59904-885-7) (B\_Chp);
- 179. Cunha M. M., Putnik G. D. (2007) Market of Resources: Opportunities Domain, in Putnik G. D., Cunha M. M. (Eds) *Encyclopedia of Networked and Virtual Organizations*, Idea Group Reference, Idea Group Inc., pp. 1124-1130 (ISBN-10: 1-59904-885-X, ISBN-13: 978-1-59904-885-7) (B\_Chp);
- 180. Cunha M. M., Putnik G. D., Silva J. P. (2007) Market of Resources: Supporting Technologies, in Putnik G. D., Cunha M. M. (Eds) *Encyclopedia of Networked and Virtual Organizations*, Idea Group Reference, Idea Group Inc., pp. 1568-1574 (ISBN-10: 1-59904-885-X, ISBN-13: 978-1-59904-885-7) (B\_Chp);
- 181. Ávila P., Putnik G. D., Cunha M. M., Pires A. (2007) Taxonomy of Broker's Functions in Virtual Enterprises, in Putnik G. D., Cunha M. M. (Eds) *Encyclopedia of Networked and Virtual Organizations*, Idea Group Reference, Idea Group Inc., pp. 1607-1615 (ISBN-10: 1-59904-885-X, ISBN-13: 978-1-59904-885-7) (B\_Chp);
- 182. Putnik G., Gonçalves P., Sluga A., Cunha M. M. (2008) Virtual environments for dynamically reconfigurable Concurrent/Collaborative Engineering "virtual" team, *CIRP Annals*, Vol 57, No 1, pp. 171-174 (J\_Int)

- 183. Ávila P., Putnik G. D., Sá C., Contente J. (2008) Optimization of the quality plan in SAINT-GOBAIN MONDEGO, SA A case study. In Putnik G. D., Ávila P. (Eds.), Business Sustainability I (pp. 323-328). Guimarães: School of Engineering University of Minho; Porto: ISEP School of Engineering Polytechnic of Porto. (Proceedings of the 1st International Conference on Business Sustainability 2008 Management, Technology and Learning for Individuals, Organisations and Society in Turbulent Environments, June 2008, Ofir, Portugal) (B\_Chp-P\_Int);
- 184. Pires A., Putnik G. D. and Ávila P. (2010). An analysis about the resources selection process in agile/virtual enterprises. In Putnik G. D., Ávila P. (Eds.), *Business Sustainability I* (pp. 196-202). Guimarães: School of Engineering University of Minho; Porto: ISEP School of Engineering Polytechnic of Porto. (Proceedings of the 1st International Conference on Business Sustainability 2008 Management, Technology and Learning for Individuals, Organisations and Society in Turbulent Environments, June 2008, Ofir, Portugal) (B\_Chp-P\_Int);
- 185. Szecsi T., Putnik G. D. (2008) The Effect of Consumer Satisfaction on the Environment). In Putnik G. D., Ávila P. (Eds.), *Business Sustainability I* (pp. 85-90). Guimarães: School of Engineering University of Minho; Porto: ISEP School of Engineering Polytechnic of Porto. (Proceedings of the 1st International Conference on Business Sustainability 2008 Management, Technology and Learning for Individuals, Organisations and Society in Turbulent Environments, June 2008, Ofir, Portugal) (B\_Chp-P\_Int);
- 186. Shah V., Castro H., Putnik G. D. (2008) Implementation of Virtual Enterprise aspects: an analysis of Outsourcing Industry. In Putnik G. D., Ávila P. (Eds.), *Business Sustainability I* (pp. 221-225). Guimarães: School of Engineering University of Minho; Porto: ISEP School of Engineering Polytechnic of Porto. (Proceedings of the 1st International Conference on Business Sustainability 2008 Management, Technology and Learning for Individuals, Organisations and Society in Turbulent Environments, June 2008, Ofir, Portugal) (B\_Chp-P\_Int);
- 187. Putnik G. D., Castro H., Shah V. (2008) From 'traditional' enterprises to virtual enterprise: a contribution to the transformation processes. In Putnik G. D., Ávila P. (Eds.), *Business Sustainability I* (pp. 210-215). Guimarães: School of Engineering University of Minho; Porto: ISEP School of Engineering Polytechnic of Porto. (Proceedings of the 1st International Conference on Business Sustainability 2008 Management, Technology and Learning for Individuals, Organisations and Society in Turbulent Environments, June 2008, Ofir, Portugal) (B\_Chp-P\_Int);
- 188. Ferreira L., Putnik, G. D. (2008) Open Tourism Initiative, *Tekhné Review of Polytechnical Studies, Publisher*: IPCA (Instituto Politécnico de Cavado e Ave), Volume: 1, Number: 1, pp: 93-109, Year: 2008. (J\_Nat)
- 189. Gonçalves P., Putnik, G. D. (2008) A Virtual Communication Interface Called E-mask, *Tekhné Review of Polytechnical Studies, Publisher*: IPCA (Instituto Politécnico de Cavado e Ave), Volume: VI, Number: 9, pp: 111-127, Year: 2008. (J\_Nat)
- 190. Putnik G. D., Shah V., Sousa R. M., Castro H., Raja V., Szecsi T., Oztemel E., Kubat C. (2008) A Software Architecture and Functionality of Remote Controlling in Ubiquitous Manufacturing Systems Demonstrator for I\*PROMS 'efm' Showcase, in Cagil G., Kubat C., Oztemel E, Taskin H (Eds.) Intelligent & Manufacturing Systems Features, Strategies and Innovation (Proceedings of the 6<sup>th</sup> International Conference on Intelligent & Manufacturing Systems IMS 2008, Sakarya, Turkey, October 2008), pp. 842-851; (B\_Chp-P\_Int);

- 191. Putnik G. D., Popovic Z., Arandjelovic I. (2008) *PrESmod* Language for 2D Geometric Modelling Some Specific Definitions, in in Cagil G., Kubat C., Oztemel E, Taskin H (Eds.) *Intelligent & Manufacturing Systems Features, Strategies and Innovation* (Proceedings of the 6<sup>th</sup> International Conference on Intelligent & Manufacturing Systems IMS 2008, Sakarya, Turkey, October 2008) ), pp. 939-943; (B\_Chp-P\_Int);
- 192. Putnik Z., Putnik, G. D. (2008) Metaphor and "Beyond" Metaphor: A Perspective from Linguistics, in *Proceedings of ECCON (European Chaos/Complexity in Organisations Network)* 2008 Annual Meeting, Bergen aan Zee, The Netherlands, October 2008, Texto completo. (P\_Int)
- 193. G. D: Putnik (2009) (Editorial) Complexity and Learning for Management and Sustainability in Turbulent Environments, in *The Learning Organization An International Journal*, Publisher: Emerald, Volume: 16, Number: 3, pp: 185-188, Month: May, Year: 2009 (J\_Int)
- 194. G. D: Putnik (2009) Complexity Framework for Sustainability: An Analysis of Five Papers, in *The Learning Organization An International Journal*, Publisher: Emerald, Volume: 16, Number: 3, pp: 261-270, Month: October, Year: 2009 (J\_Int)
- 195. Filipovic J., Putnik G. D. (2009) Serbian Diaspora Virtual University:Human Resource Potential, in Proceedings of *The Third International Symposium on the development of public administration in Southeast Europe—Public Administration in the context of financial crisis and economic slowdown*, University of Ljubljana, Faculty of Administration, Ljubljana; (P\_Int)
- 196. Coleman S. Y., Putnik G. D. (2009) Investigations to improve communication between experts, in Pham D. T., et al. (Eds.) *Intelligent Production Machines and Systems (Proceedings of the 5th I\*PROMS Virtual International Conference*), Elsevier, Amsterdam, pp: ..., ISBN-..., 6-17th July 2009 (B\_Chp-P\_Int)
- 197. Putnik G. D., Castro H., Shah V., Cunha M.M. (2009) A software tool for demonstration of Virtual Enterprise dynamic reconfiguration influence on Time-To-Market. in Teti R (Ed) Proceedings of the 2nd International Researchers Symposium 2009 on Innovative Production Machines and Systems, Ischia, Italy, pp: 157-162 (ISBN 978-88-95028-38-5) (B\_Chp-P\_Int)
- 198. Cunha M. M. C., Putnik G. D. (2009) Environments for Virtual Enterprise Integration, *International Journal of Enterprise Information Systems (IJEIS)*, Vol. 5, Issue 4, pp: 71-87 (J\_Int)
- 199. Putnik G. D. (2010) Semiotics Based Manufacturing System Integration (Editorial), *International Journal of Computer Integrated Manufacturing*, Volume 23, pp (in press) (J\_Int)
- 200. Putnik G. D., Putnik Z. (2010) Semiotic Framework for Manufacturing Systems Integration and its Generative Integration Model, *International Journal of Computer Integrated Manufacturing*, Volume 23, pp \_\_\_\_\_ (in press) (J\_Int)
- 201. F. M. Eijnatten, Putnik G. D. (2010) An exploration of the integrative function of dialogue in manufacturing, *International Journal of Computer Integrated Manufacturing*, Volume 23, pp \_\_\_\_\_ (in press) (J\_Int)

## 1.1.4 Other texts, publications in technical journals and technical reports - without independent review

#### Other texts

1. Putnik G., Groppetti R. (Eds.) (1997) *Theoretical Problems on Manufacturing Systems Design and Control*, University of Minho, (B\_Edt).

(Proceedings of the International Workshop on Theoretical Problems on Manufacturing Systems Design and Control, Lisbon, 1996.)

#### Publications in technical journals

1. Butala P., Vengust I., Sluga A., Putnik G. (2008) New production structures builders, IRT 3000 (Innovations, Development, Technologies), October, 17, 5/2008, Year 3., ISSN 1854-3669, pp: 119-124.

#### Technical reports

- 1. Sousa, R., Putnik, G. (1999) *Formal Description Techniques for Manufacturing Systems*, Technical Report RT-CESP-GIS-99-<RS, GP-01>, University of Minho, Portugal.
- 2. Sousa, R., Putnik, G. (2000) *Basic Concepts for a Formal Theory of Manufacturing Systems Part I*, Technical Report RT-CESP-GIS-2000-<RS, GP-01>, University of Minho, Portugal.
- 3. Putnik, G., Sousa, R. (2000) *General Systems Theory System Structuring Part I*, Technical Report RT-CESP-GIS-2000-<GP, RS-02>, University of Minho, Portugal.
- 4. Putnik, G. (2000) *BM\_Virtual Enterprise Architecture Reference Model*, Technical Report RT-CESP-GIS-2000-<GP-01>, University of Minho, Portugal.
- 5. Pithon A., Putnik, G. (2001) *Concurrent Engineering and Team Work An Introduction*, Technical Report RT-CESP-GIS-2001-<AP, GP-01>, University of Minho, Portugal.
- 6. Pithon A., Putnik, G. (2002) *Virtual Enterprise: An Emergent Organisational Structure*, Technical Report RT-CESP-GIS-2002-<GP, RS-02>, University of Minho, Portugal.
- 7. Pithon A., Putnik, G. (2002) *An Analysis of the Tools for Team Work Support for the Concurrent Engineering Environment*, Technical Report RT-CESP-GIS-2002-<GP, RS-03>, University of Minho, Portugal.

### 1.2 Scientific Projects

### 1.2.1 International projects – with participation as coordinator or researcher

- 1. "Curricula of the Training of Industrial Managers", TEMPUS Joint European Project, JEP 2471-91/1, University of Strathclyde, Glasgow (UK), Commission of the European Communities (CEC), Brussels, 1991-92. Responsibility: partner/researcher
- 2. "Bulgarian Agribusiness Project", TEMPUS Joint European Project, S-JEP-09004-96, University of Minho, Braga, Portugal, Commission of the European Communities (CEC), Brussels, 1996-98. Responsibility: partner/researcher
- 3. "COVE COoperation infrastructure for Virtual Enterprises and electronic business", IFIP WG 5.5, New University of Lisbon (Universidade Nova de Lisboa), Lisbon, 2000-2002. Responsibility: partner/researcher
- 4. "Adaptive Distributed Manufacturing Systems / Virtual Enterprises", Inter-Governmental Science and Technology Cooperation between Portugal and Slovenia, MCT (Ministério da Ciência e do Ensino Superior), University of Minho, University of Ljubljana. Responsibility: one of coordinators, coordinator for the University of Minho; 2002-2003
- 5. "Adaptive Distributed Manufacturing Systems / Virtual Enterprises", Inter-Governmental Science and Technology Cooperation between Portugal and Slovenia, MCT / GRICES (Ministério da Ciência e do Ensino Superior), University of Minho, University of Ljubljana. Responsibility: one of coordinators, coordinator for the University of Minho; 2004-2005.
- 6. "Implementing Quality Assurance in Serbian Universities", TEMPUS Joint European Project, European Commission − Directorate-General Education and Culture, Brussels, Contract №: UM-JEP-17040, 2003-2006. Responsibility: Project Contractor.
- 7. "Adaptive Distributed Manufacturing Systems A Conceptual Framework for Collaborative Design and Operations of Manufacturing Work System", Inter-Governmental Science and Technology Cooperation between Portugal and Slovenia, MCTES / GRICES (Ministério da Ciência e do Ensino Superior), University of Minho, University of Ljubljana Responsibility: one of coordinators, coordinator for the University of Minho; 2006-2007.
- 8. "Innovative PROduction Machines and Systems Network of Excellence I\*PROMS NoE", Network-of-Excellence, FP6, Contract Nº: 500273-2. Responsibility: partner, coordinator for the University of Minho; 2003-2009;
- 9. "Normalization of the primitive manufacturing resources for dynamic integration of distributed, virtual and ubiquitous manufacturing systems", *Inter-Governmental Science and Technology Cooperation between Portugal and Slovenia*, MCTES / GRICES (Ministério da

- Ciência e do Ensino Superior), University of Minho, University of Ljubljana, Responsibility: one of coordinators, coordinator for the University of Minho; 2008-2009.
- 10. "Ubiquitous Oriented Embedded Systems For Globally Distributed Factories Of Manufacturing Enterprises UES", EUREKA PROJECT E!4177- PRO-FACTORY UES; Responsibility: partner, coordinator for the University of Minho; 2008-2011.

  (em curso)
- 11. "Ubiquitous Oriented Embedded Systems For Globally Distributed Factories Of Manufacturing Enterprises UES", national Foundation for Science and Technology FCT, Ref.: PTDC/EME-GIN/102143/2008. Responsibility: coordinator;2010-2012. (ongoing)

## 1.2.2 International projects – with participation as *ad hoc* Invited Expert

- 1. "Flexible Automation for SME", SPRINT Specific Project SPI 072/2 Responsibility: observer of the project, 1995-96.
- "THINKcreative Thinking network of experts on emerging smart organizations" IST-2000-29478 Project, Coordinator: New University of Lisbon (Universidade Nova de Lisboa), Responsibility: "ad hoc" invited external expert, 2003.
- 3. "VOmap Roadmap design for collaborative virtual organizations in dynamic business ecosystems— IST-2001-38379 Project, Coordinator: New University of Lisbon (Universidade Nova de Lisboa), Responsibility: "ad hoc" invited external expert, 2003.
- 4. "ECOLEAD European Collaborative Networked Organizations Leadership Initiative", European Community "Information Society Technology" Programme, Sixth Framework Programme FP6, IP 506956, Coordination: Technical Research Centre of Finland VTT, Finland, UNINOVA Instituto de Desenvolvimento de Novas Technologias, Lisbon; Responsibility: "ad hoc" invited external expert, March 2005.

### 1.2.3 Business development (enterpreneurship) projects

1. Putnik G.: Consulting and supervision along the process of creation of the start-up company "BETA", Programa "Entrepreneur on University - SMART TULIP", University of Minho and TECMINHO, Responsibility: Scientific supervisor, 2003.

- 1.2.4 Projects within the Center for Production Systems
  Engineering (Centro de Engenharia
  de Sistemas de Produção) CESP, of the University
  of Minho and within the Interdisciplinary Center for
  Production Technologies and Energy (Centro
  Interdisciplinar de Tecnologias da Produção e da
  Energia) CITEPE, of the University of Minho and
  national Foundation for Science and Technology FCT (Fundação para a Ciência e a Tecnologia)<sup>1</sup>
- 1. Putnik G.: "One-Product-Integrated-Manufacturing (OPIM) Systems", Centro de Engenharia de Sistemas de Produção (CESP) e do Centro Interdisciplinar de Tecnologias da Produção e da Energia (CITEPE), **Responsibility: Coordinator**, 1994 **(ongoing)**.
- 2. Putnik G., Sousa R., Rosas J.: "Intelligent Manufacturing Systems", Centro de Engenharia de Sistemas de Produção (CESP) e do Centro Interdisciplinar de Tecnologias da Produção e da Energia (CITEPE), **Responsibility: Coordinator**, 1995 2000.
- 3. Putnik G., Rosas J.: "Design Theory", Centro de Engenharia de Sistemas de Produção (CESP) e do Centro Interdisciplinar de Tecnologias da Produção e da Energia (CITEPE), Responsibility: Coordinator, 1995 2000.
- 4. Putnik G., Moreira F.: "Telematics technologies for CAD/CAM systems", Centro de Engenharia de Sistemas de Produção (CESP) e do Centro Interdisciplinar de Tecnologias da Produção e da Energia (CITEPE), Responsibility: Coordinator, 1994- 1998.
- 5. Putnik G., Rosas J., Morais D. F., Barbosa L. A., Coelho S., C.: "Robot's Kinematic Control", Centro de Engenharia de Sistemas de Produção (CESP) e do Centro Interdisciplinar de Tecnologias da Produção e da Energia (CITEPE), **Responsibility: Coordinator**, 1995.

Selected by the Agency of Innovation and featured in the "Supervale Catalogue - Survey of R & D Results in Portugal". This project is one of about a hundred projects selected from approximately 1,200 research projects and development in Portugal.

6. Putnik G., Rosas J.: "Intelligent System for Manufacturing and Service Process Planning", Centro de Engenharia de Sistemas de Produção (CESP) e do Centro Interdisciplinar de Tecnologias da Produção e da Energia (CITEPE), Responsibility: Coordinator, 1995.

Selected by the Agency of Innovation and featured in the "Supervale Catalogue - Survey of R & D Results in Portugal". This project is one of about a hundred projects selected from approximately 1,200 research projects and development in Portugal.

7. Silva S. C., Putnik G., Martins P.: "Modelação e Planeamento de Sistemas de Planeamento e Controlo da Produção/Sistemas Inteligentes para a Gestão da Produção", *Centro de Engenharia* 

<sup>&</sup>lt;sup>1</sup> Interdisciplinary Center for Production Technologies and Energy (CITEPE) is a center of the FCT, with "plurianual" funding "framework" of the FCT.

- de Sistemas de Produção (CESP) e do Centro Interdisciplinar de Tecnologias da Produção e da Energia (CITEPE), **Responsibility: Parner**; Coordinator: Sílvio do Carmo Silva;
- 8. Goran Putnik, Sousa R.: "Formal Theory of Production Systems", Centro de Engenharia de Sistemas de Produção (CESP) e do Centro Interdisciplinar de Tecnologias da Produção e da Energia (CITEPE), **Responsibility: Coordinator**, 2000 **(em curso)**
- 9. Goran Putnik, Carvalho D., et al.: "Distributed/Virtual Production Systems", Centro de Engenharia de Sistemas de Produção (CESP) e do Centro Interdisciplinar de Tecnologias da Produção e da Energia (CITEPE), Responsibility: Coordinator, 2000 (ongoing)
- 10. Putnik G., Sousa R.: "Intelligent Manufacturing Systems", Centro de Engenharia de Sistemas de Produção (CESP) e do Centro Interdisciplinar de Tecnologias da Produção e da Energia (CITEPE), Responsibility: Coordinator, 2000 (ongoing).
- 11. Putnik G., Sousa R.: "Design Theory", Centro de Engenharia de Sistemas de Produção (CESP) e do Centro Interdisciplinar de Tecnologias da Produção e da Energia (CITEPE), Responsibility: Coordinator, 2000 (ongoing).
- 12. Putnik G.: "Chaos and Complexity Management in Organizations", Centro de Engenharia de Sistemas de Produção (CESP) e do Centro Interdisciplinar de Tecnologias da Produção e da Energia (CITEPE), Responsibility: Coordinator, 2008 (ongoing).
- 13. Putnik G.: "Production Systems and Enterprises Semiotics", Centro de Engenharia de Sistemas de Produção (CESP) e do Centro Interdisciplinar de Tecnologias da Produção e da Energia (CITEPE), Responsibility: Coordinator, 2008— (ongoing).

## 1.2.5 Scientific research and development projects founded by industry in Serbia - until 1988

- 1. "Design and development of the computer based information system for the inventory control", Machine industry "POBEDA", Novi Sad, Contract No. 6268, from 25.11.1981.
- 2. "Analyses of the entities coding system", Industry "Zivan Maricic FVK", Kraljevo, 1982.
- 3. "Design and development of the computer based information system for the operation work orders control", Machine industry "POBEDA", Novi Sad, Contract No. 475, from 30.12.1983.
- 4. "System analyses for the computer based information system implementation in the '14th October industry", Industry "14. Octobar", Krusevac, Contract No. 512, from 24.12.1984.
- 5. "Design of the computer based information system for the capacity planning", Pump industry "Jastrebac", Nis, Contract No. 272, from 06.05.1985.
- 6. "System analyses for the computer based information system implementation in the Chemical industry 'Miloje Zakic'", Krusevac, Contract No. 512, from 16.10.1985.

- 7. "Researching and development of the AGV prototype RKG-01", Industry "GOSA", Smederevska Palanka, Contract No. 557, from 13.11.1985.
- 8. "Design of the computer based information system for inventory control", Pump industry "Jastrebac", Nis, Contract No. 618, from 16.12.1987.
- 9. "The entities coding system", Industry "14. October", Krusevac, Contract No. 535, from 16.01.1986.
- 10. "Design and development of the computer based information system for the operations work orders control", Pump industry "Jastrebac", Nis, Contract No. 58, from 16.02.1987.
- 11. "Computer based information system for the capacities maintenance", Industry "SIMPO-Vranje", Vranje, Contract No. 418, from 15.10.1987.
- 12. "Data catalogue in the methodology of the information systems design", Computing centre "LERC", Leskovac, Contract No. 950481, 1987.
- 13. "Development of the entities classification and coding system", Chemical industry "ZORKA", Sabac, Contract No. 526, from 29.12.1987.
- 14. "Preproject of the pumps and turbins factory", Mine and mining industry "RTB-BOR", Bor, Contract No. 560, from 22.12.1988.
- 15. Consultancy for the information system development for production planning and control, Pump industry "Jastrebac", Nis, from 1990.
- NOTES: 1. After 1988, until joining the University of Minho, participated in several similar projects not included for lack of accurate data, including dates, titles of projects, numbers and dates of contracts.
  - 2. Project No. 1-15 were performed at the Department of Production Engineering, Faculty of Mechanical Engineering, University of Belgrade
  - 3. In all projects participated as an investigator, i.e. level of **responsibility: Investigator** (researcher).

# 1.2.6 Scientific research and development projects founded by public institutions and government in Serbia - until 1988

- 1. "Complex researching of the information systems", National Fund for Science, Project No. 2.41.
- 2. "Development of the products and manufacturing technologies", National Fund for Science, Project No. 2.34.
- 3. "Industrial robots systems", National Fund for Science, Project No. 2.45.
- 4. "Information systems for industry", National Fund for Science, Project No. 2.54.

- 5. "New methods and techniques in the development, design and exploitation of machine systems", National Fund for Science, Project No. 2.38.
- 6. "Integrated quality control", National Fund for Science, Project No. 2.78.
- 7. "New technologies in metalworking industry development strategy", National Fund for Science, Project No. T.104.
- 8. "Industrial robots systems", National Fund for Science, Project No. T.110.
- 9. "Intelligent manufacturing systems", National Fund for Science, Project No. T.111.
- 10. "Information technologies researching in information systems", National Fund for Science, Project No. T.135.
- 11. "Flexible manufacturing systems for the metalworking industry of Belgrade", City of Belgrade Fund for Science, Project No. 415.7-2/99/86-01.
- 12. "Local Area Network for CIM concepts", IKT 25-01, 950526,1988.
- NOTES: 1. After 1988, until joining the University of Minho, participated in several similar projects not included for lack of accurate data, including dates, titles of projects, numbers and dates of contracts.
  - 2. Project No. 1-15 were performed at the Department of Production Engineering, Faculty of Mechanical Engineering, University of Belgrade
  - 3. In all projects participated as an investigator, i.e. level of **responsibility: Investigator** (researcher).

### 1.3 <u>Supervision / Mentorship of the</u> <u>projects for obtaining scientific degrees</u>

### 1.3.1 Supervision / Mentorship of the PhD (DrSc) projects

#### **CONCLUDED PROJECTS**

1. PhD student: Maria Manuela Cruz Cunha. Project title: "Organization of a Market of Resources for Integrating agile and virtual enterprises". PhD Project on University of Minho. Cosupervision of A. Gunasekaran, (University of Massachusetts-Dartmouth, USA). (external student).

#### **Project concluded in April 2003**

2. PhD student: Rui Manuel Alves da Silva e Sousa. Project title: "Contribution to a Formal Theory of Production Systems". PhD Project on University of Minho.

#### Project concluded in July 2003

3. PhD student: Paulo F. J. Martins. Project title: "Intelligent Systems for Production Management". PhD Project on University of Minho. Co-supervision with Silvio do Carmo Silva

#### Project concluded in April 2004

4. PhD student: Paulo António da Silva Ávila. Project title: "Definition of a Rigorous Model for Resources System Selection for the Project of Virtual Production System / OPIM for Complex Products". PhD Project on University of Minho. (external student)

#### Project concluded in July 2004

5. PhD student: António José Caulliraux Pithon. Project title: "Concurrent Engineering Organization Design in Virtual Enterprises". PhD Project on University of Minho. (external student)

#### **Project concluded in December 2004**

6. PhD student: Domingos Ferreira. Project title: "Interactive Marketing and Consumer Behavior in the Agile and Virtual Enterprises". PhD Project on University of Minho. Co-supervision with António Paisana (external student)

#### **Project concluded in April 2006**

7. PhD student: António Manuel de Mendonça Guerreiro. Project title: "Distributed simulation for Design and Control of Distributed and Virtual Production Systems". PhD Project on University of Minho. Co-supervision of António Guimarães Rodrigues (external student)

#### Project concluded in July 2006

8. PhD student: Patrícia Sofia Torres Rodrigues Gonçalves. Project title: "Characterization of interfaces between end-users in agile and virtual enterprises". PhD Project on University of Minho. Co-supervision of Maria Manuela Cunha (external student)

**Project concluded in June 2008** 

#### **ONGOING PROJECTS**

9. PhD student: António Pires. Project title: "Integration of Value Analysis in Configuration Processes of Enterprise Agile Virtual". PhD Project on University of Minho. Co-supervision of Paulo Ávila (external student)

#### **Ongoing project**

10. PhD student: Rui Carvalho. Project title: "Complexity Management in Concurrent Engineering". PhD Project on University of Minho. (external student)

#### **Ongoing project**

11. PhD student: Hélio Castro. Project title: "Assessment of the potential of meta-institutions in supporting development of of virtual and ubiquitous enterprises – an applications to regional clusters". PhD Project on University of Minho. Co-supervision of Maria Manuela Cunha (external student)

#### **Ongoing project**

12. PhD student: Vaibhav Shah. Project title: "Contribution to Automatic Synthesis of Formal Theories of Production Systems and Virtual Enterprises". PhD Project on University of Minho. Co-supervision of Rui Sousa (external student)

#### **Ongoing project**

13. PhD student: Luís Ferreira. Project title: "Architectures for Integration of Information Systems in case of Dynamic Reconfiguration of Virtual Enterprises". PhD Project on University of Minho. Co-supervision of Manuela Cunha (external student)

#### **Ongoing project**

\* PhD student: Jaime Alberto Galiza de Matos Naldinho. Project title: "Organization and management of new product development based on concepts of virtual enterprise and concurrent engineering". PhD Project on University of Minho. (external student)

#### **Ongoing project**

\* PhD student: Maria Manuela Mendes Félix Abrunhosa de Brito. Project title: "Intelligent knowledge base as an enabler of the dynamic reconfiguration and operation of virtual enterprises". PhD Project on University of Minho. Co-supervision of Maria Manuela Cunha (external student)

#### **Ongoing project**

\* NOTE: The projects are temporarily interrupted because of the professional situation of PhD students. A sequel is planned.

#### 1.3.2 Supervision / Mentorship of the MSc projects

#### **CONCLUDED PROJECTS**

1. MSc student: Nuno Miguel Gonçalves Mariz. Project title: "Design of a system for selective collection of car residuals", MSc course on Environmental Engineering, University of Porto

#### Project concluded in January 1998.

2. MSc student: Paulo António da Silva Ávila. Project title: "Selection of material processing equipment for designing of virtual production systems", MSc course on Computer Integrate Manufacturing, University of Minho

#### Project concluded in April 1998.

3. MSc student: José Francisco Pereira Moreira. Project title: "Remote Operation and Control of Industrial Equipment: Development of Teleservices based CAM Systems", MSc course on Computer Integrate Manufacturing, University of Minho

#### Project concluded in June 1998.

4. MSc student: João Almeida das Rosas. Project title: "Automated conceptual design of products and production systems", MSc course on Computer Integrate Manufacturing, University of Minho

#### Project concluded in October 2000.

5. MSc student: Maria Carla de Sousa Placencia. Project title: "Design of production systems structures: methodologies of synthesis and validation", MSc course on Computer Integrate Manufacturing, University of Minho

#### Project concluded in July 2000.

6. MSc student: Jaime Naldinho. Project title: "Contribution to the project of a virtual system / OPIM for new products development", MSc course on Computer Integrate Manufacturing, University of Minho

#### Project concluded in December 2000.

7. MSc student: Carlos Alberto Sousa Leão. Project title: "Decision support for integration of an industrial company in the virtual market of virtual enterprises", MSc course on Computer Integrate Manufacturing, University of Minho

#### Project concluded in June 2000.

8. MSc student: Miguel Ângelo Silva de Lima. Project title: "Organisation of company based on principles of Concurrent Engineering for mold industry", MSc course on Mould Design and Mannufacturing, University of Minho

#### **Project concluded in March 2003**

9. MSc student: Manuel Joaquim Costa. Project title: "Variant Process planning system design for mold manufacturing", MSc course on Mould Design and Mannufacturing, University of Minho

#### **Project concluded in November 2003**

10. MSc student: Joaquim Gonçalves Pereira da Silva. Project title: "Information technology in support of a market of resources for virtual enterprise integration", MSc course on Industrial Engeneering, University of Minho

#### **Project concluded in November 2003**

11. MSc student: Nuno Filipe dos Santos Beça Pereira. Project title: "Web services and Broker service architecture for agile and virtual enterprises", MSc course on Mechanical Engineering, University of Aveiro. Co-supervision with José Paulo Santos (University of Aveiro).

#### **Project concluded in January 2008**

Goran Putnik: effective co-supervision with Dr. Silvio do Carmo Silva of the MSc Project "GDPL - Graphical Database Programming Language", MSc student Paulo F. J. Martins, MSc course on Informatics, University of Minho. Co-supervision not formalized in the oficial institutional documents.

Project concluded in 1996.

## 1.3.3 Supervision / Mentorship of the post-graduation (specialization) projects

1. Specialization course student: António Costa. Project title: "Management of product changes in the electronic products industry", Specialization course on Computer Integrated MAnufacturing (EPIC), University of Minho.

Project concluded: 1994.

### 1.4 Participação em Júris (PJ)

A resume of these activities is presented in the Section 0.7, see p.7.

Detailed report available upon request.

### 1.5 Other activities

## 1.5.1 Participation in international and national Scientific Networks /Societies / Groups as a member

 Member of the <u>CIRP – The International Academy for</u> <u>Production Engineering</u>, <a href="http://www.cirp.net/">http://www.cirp.net/</a>



- 2. Member of the IFIP WG 5.5 "COoperation infrastructure for Virtual Enterprises and electronic business COVE", <a href="http://www.uninova.pt/~cove">http://www.uninova.pt/~cove</a>
- 3. Member of the ECCON "European Chaos and Complexity in Organisations Network ECCON", <a href="http://www.chaosforum.com/nieuws/index\_eng.html">http://www.chaosforum.com/nieuws/index\_eng.html</a>
- 4. Member of the SOCOLNET "Society of Collaborative Networks", http://www.uninova.pt/~socolnet/
- Member of the Society of Tool Engineers and Technicians of Belgrade) (active member until 1992.
   President of the Society in the period 1990-1992.
- 6. Member of the Association "JUPITER" (Yugoslav Association for Production Systems) (activ member until 1992)
  Secretary of the Section of Production Planning and Control in the period 1988-1992.

## 1.5.2 Participation in Editorial Boards of international and national scientific journals

- Associate Editor of "International Journal of Business
   Excellence (IJBEX)", InderScience Publishers,
   http://www.inderscience.com/browse/index.php?journalID=29
- 2. **Member of the Editorial Board** of "International Journal of Enterprise Information Systems: An Official Publication of the Information Resources Management Association (IJEIS)", Idea





Group Publ. <a href="http://www.idea-group.com/journals/details.asp?id=4292">http://www.idea-group.com/journals/details.asp?id=4292</a>

3. **Member of the Editorial Board** of "International Journal of Enterprise Network Management (IJENM)", InderScience Publishers,

http://www.inderscience.com/browse/index.php?journalID=18 7#board

- 4. **Member of the Editorial Board** of "International Journal of Industrial and Systems Engineering (IJISE)", InderScience Publishers
- 5. **Member of the Editorial Board** of "MANAGEMENT Journal for Management Theory and Practice", Faculty of Organizational Sciences of the University of Belgrade
- 6. **Member of the Scientific Council** of "Rio's International Journal on Sciences of Industrial and Systems Engineering and Management", Universidade do Estado do Rio de Janeiro, Faculdade de Engenharia, Departamento de Engenharia Industrial, Rio de Janeiro, RJ, Brazil, <a href="http://www.rij.eng.uerj.br/">http://www.rij.eng.uerj.br/</a>
- 7. **Member of the Editorial Board** of "VIMATION (European Virtual Institute for Human Machine Interaction and Models in Production) Journal", Fraunhofer IAO, Germany, http://www.vimation.eu/en/vimation-journal2/index.php
- 8. **Associate Editor** of "Information and Communication Technologies for the Advanced Enterprise: An International Journal", Published by: Polytechnic Institute of Cávado and Ave, Portugal, <a href="http://ict4ae.org/index.php">http://ict4ae.org/index.php</a> (First issue to be oublished in 2010)









9.

- 10. **Guest Editor**, with Prof. Einjatten F. (University of Eindhoven of Technology, The Netherlands), of a "Special Issue" of "The Learning Organization An International Journal", Publisher: Emerald, with the subject on "Chaordic System Thinking for Learning Organizations", Volume 11, Number 6, (October) 2004.
- 11. **Guest Editor**, with Prof. A. Gunasekaran (University of Massachusetts Dartmouth, USA), of a "Special Issue" of "Benchmarking: An International Journal", Publisher: Emerald, with the subject on "Performance Measures, Benchmarking and Best Practices in the New Economy", Volume 13, Issue 1/2, 2006.
- 12. **Guest Editor** of a "Special Issue" of "The Learning Organization An International Journal", Publisher: Emerald, with the subject





- on "Complexity and Learning for Management and Sustainability in Turbulent Environments", Volume: 16, Number: 3, Year: 2009.
- 13. **Guest Editor** of a "Special Issue" of "International Journal of Computer Integrated Manufacturing IJCIM", Publisher: Taylor & Francis, with the subject on "SEMIOTICS BASED MANUFACTURING SYSTEM INTEGRATION", Volume: 23 Number: xx, Year: 2010 (in press).



## 1.5.3 Reviewing "ad-hoc" of the papers submitted to international and national scientific journals

- 1. "International Journal of Production Research", Taylor & Francis, UK
- 2. "Journal of Engineering Manufacture Part B Proceedings of the Institution of Mechanical Engineers (IMechE)", Professional Engineering Publishing (PEP), UK
- 3. *"IEEE Transactions on Systems, Man, and Cybernetics--Part C: Applications and Reviews"*, The Institute of Electrical and Electronics Engineers, Inc. (IEEE)
- 4. "IEEE Transactions on Industrial Informatics", The Institute of Electrical and Electronics Engineers, Inc. (IEEE)
- 5. "European Journal of Operational Research", Elsevier Science B.V., The Netherlands
- 6. "International Journal of Behavior & Information Technology", Taylor & Francis, UK
- 7. "Técne Revista de Estudos Politécnicos / Polytechnical Studies Review", Instituto Politécnico do Cávado e do Ave, Portugal
- 8. *"VIMATION Journal"*, the European Virtual Institute for Human Machine Interaction and Models in Production
- 9. "International Journal of Supply Chain Management", EMERALD, UK
- 10. "Benchmarking An International Journal", EMERALD, UK
- 11. "International Journal of Computer Integrated Manufacturing IJCIM", Publisher: Taylor & Francis", UK
- 12. **Officially appointed reviewer** for the "Information Resources Management Journal: An Official Publication of the Information Resources Management Association", Publisher: Idea Group Publ. http://www.idea-group.com/journals/details.asp?id=199
- 13. **Officially appointed reviewer** for the Editorial Advisory Board of the publisher IGP (IDEA Group Publ.), Hershey, PA, USA, of the books submitted for publications
- 14. **Reviewer** for "The Learning Organization An International Journal", Publisher: Emerald, http://www.emeraldinsight.com/Insight/viewContainer.do?containerType=Journal&containerId=10943

### 1.5.4 Reviewing of international and national projects

- 1. Reviewer of projects proposals submitted under the EU EUREKA program (for JNICT, 1996/97)
- Reviewer of of projects proposals (two proposals) submitted to the program Research in the Area of Technological Development Program for the period 2008-2011, the Ministry of Science, Republic of Serbia, 2008.

### 1.5.5 Participation in Scientific Committees of international and national conferences

Member of International Scientific Committee, or Program Committees, of:

- 1. "1st World Congress on Intelligent Manufacturing Processes & Systems", CIRP Sponsored, Mayaguez, Porto Rico, 1995;
- 2. "5<sup>as</sup> Jornadas Nacionais de Projecto, Planeamento e Produção Assistidos por Computador" (The 5th National Meeting on the Computer Aided Design, Planning and Production), Guimarães, Portugal, 1995;
- 3. "MECHATRONICS '96 The 5th UK Mechatronics Forum International Conference with The 3rd International Conference on Mechatronics and Machine Vision in Practise M2VIP '96", Guimarães, 1996;
- 4. "2nd IEEE/ECLA/IFIP International Conference on Architectures and Design Methods for BALANCED AUTOMATION SYSTEMS BASYS '96", Lisboa, 1996;
- 5. Co-Chairman (com Prof. R. Groppetti) of the "Workshop on Theoretical Problems on Manufacturing Systems Design and Control", Lisboa, 1996;
- 6. "SIE 96 The International Symposium of Industrial Engineering in Yugoslavia", Belgrado, Jugoslávia, 1996;
- 7. "2nd World Congress on Intelligent Manufacturing Processes & Systems", Budapeste, Hungria, 1997;
- 8. "ISIP 97 OE/IFIP/IEEE International Conference on Integrated and Sustainable Industrial Production", Lisboa, Portugal, 1997;
- 9. "The 4th International Conference on Mechatronics and Machine Vision in Practise M2VIP '97", Towoomba, Austrália, 1997;
- 10. "The 5th International Conference on Mechatronics and Machine Vision in Practise M2VIP '98", Nanjing, China, 1998;

- 11. "The 4th International Seminar on Intelligent Manufacturing Systems", Belgrado, Jugoslávia, 1998;
- 12. "3rd IEEE/IFIP International Conference on Information Technology for BALANCED AUTOMATION SYSTEMS in Manufacturing BASYS '98", Praga, República Checa, 1998;
- 13. Chairman do "2nd Workshop on Theoretical Problems on Manufacturing Systems Design and Control", Praga, República Checa, 1998;
- 14. "SIE 98 2nd International Symposium of Industrial Engineering in Yugoslavia", Belgrado, Jugoslávia, 1998;
- 15. "Group Technology/Cellular Manufacturing World Symposium Year 2000", San Juan, Porto Rico, 2000;
- 16. "7<sup>th</sup> Annual Conference on Mechatronics and Machine Vision in Practise M2VIP'00", Hervey Bay, Queensland, Austrália, 2000;
- 17. "MECHATRONICS '2000 The 7th Mechatronics Forum International Conference", Atlanta, EUA, 2000;
- 18. "4th IEEE/IFIP International Conference on Information Technology for BALANCED AUTOMATION SYSTEMS in Production and Transportation BASYS '2000", Berlim, Alemanha, 2000;
- 19. Chairman do "3<sup>rd</sup> Workshop on Theoretical Problems on Manufacturing Systems Design and Control" (participação nacional), Guimarães, Portugal, 2000;
- 20. "3<sup>rd</sup> International Workshop on Emergent Synthesis", Bled, Eslovénia, 2001;
- 21. "3<sup>rd</sup> International Symposium of Industrial Engineering", Belgrado, Jugoslávia, 2001;
- 22. "5th IEEE/IFIP International Conference on Information Technology for BALANCED AUTOMATION SYSTEMS in Manufacturing and Services BASYS '2002", Cancun, México, 2002;
- 23. "18<sup>th</sup> International Conference on CAD/CAM, Robotics and Factories of the Future CARs&FOF 2002", Porto, Portugal, 2002;
- 24. "International Conference on Group Technology and Cellular Manufacturing Symposium 2003", Ohio, EUA, (Julho 2003);
- 25. "International Conference on Mechatronics 2003 ICOM 2003", Loughborough, Reino Unido, (Junhoe 2003);
- 26. "1<sup>st</sup> International Conference on Advanced Research in Virtual and Rapid Prototyping", Leiria, Portugal, (Outubro<del>,</del> 2003);
- 27. "4<sup>th</sup> IFIP Working Conference on Virtual Enterprises PRO-VE '03", Lugano, Suiça, (Outubro 2003);
- 28. Co-Chairman and Co-President of the International Scientific Committee of "First International Conference on Performance Measures, Benchmarking and Best Practices in New Economy BUSINESS EXCELLENCE '03", Guimarães, Portugal, (June 2003).
- 29. "9th IEEE International Conference on Emerging Technologies and Factory ETFA 2003", Lisboa, Portugal, (Septembro 2004);
- 30. "1st IEEE International Conference on Industrial Informatics INDIN'03", Banf, Alberta, Canadá (Agosto 2003);
- 31. "4<sup>th</sup> IFIP Working Conference on Virtual Enterprises PRO-VE '04", Toulouse, França, (Agosto 2004);

- 32. "6th IFIP International Conference on Information Technology for BALANCED AUTOMATION SYSTEMS in Manufacturing and Services BASYS'04", Viena, Aústria (Septembro 2004);
- 33. "SymOrg 2004 IX International Symposium", organização da Faculdade de Ciencias Organizacionais da Universidade de Belgrado, Junho 2004, Zlatibor, Sérvia, Sérvia e Montenegro;
- 34. *"4as Jornadas Jornadas Politétnicas de Engenharia JPE 2004"*, Instituto Superior de Engenharia do Porto, Porto, Novembro 2004;
- 35. *"International Conference on Mechatronics 2005 ICOM 2005"*, Loughborough University, Reino Unido, 23-24 de Junho de 2005;
- 36. "6th IFIP Working Conference on Virtual Enterprises: Collaborative Networks and Value Creation PRO-VE '05", Valencia, Espanha, 26–28 de Setembro de 2005;
- 37. "Second Int'l Conf. on Advanced Research in Virtual and Rapid Prototyping VRAP 2005", School of Technology and Management of the Institute Polytechnic of Leiria, Leiria, Portugal, Setembro 2005;
- 38. "The 31st Annual Conference of the IEEE Industrial Electronics Society IECON '05", Raleigh, Carolina do Norte, EUA, Novembro, 2005;
- 39. *"Third International Precision Assembly Seminar IPAS'2006"*, University of Notingham, Bad Hofgastein, Aústria, Fevereiro 2006;
- 40. "International Conference On Global Manufacturing and Innovation (An Advanced Optimization Technology Approach GMI 2006", Coimbatore Institute of Technology (CIT), Julho 2006, Coimbatore, Índia;
- 41. "1ª Conferência Ibérica de Sistemas e Tecnologias de Informação CISTI 2006", Instituto Politécnico do Cávado e do Ave (IPCA), Junho de 2006, Esposende, Portugal;
- 42. *"7th IFIP Working Conference on Virtual Enterprises PRO-VE 06"*, IFIP WG5.5 COVE, Setembro 2006, Helsínquia, Filandia;
- 43. "7th IFIP International Conference on Information Technology for BALANCED AUTOMATION SYSTEMS in Manufacturing and Services BASYS '06", September 2006, Niagara Falls, Ontario, Canadá;
- 44. "2nd I\*PROMS Virtual International Conference on Intelligent Production Machines and Systems IPROMS 2006", Julho 2006;
- 45. "3rd International CIRP Sponsored Conference Digital Enterprise Technology' (DET'06)", Sesimbra, Portugal, Setembro 2006;
- 46. "PRO-VE 2007 8th IFIP Working Conference on VIRTUAL ENTERPRISES", Guimarães, Portugal;
- 47. "IPROMS 2007 Innovative PROduction Machines and Systems Conference 2007", Cardiff, Reino Unido;
- 48. "3rd International Conference on Advanced Research in Virtual and Rapid Prototyping "VR@P 07 Virtual and Rapid Manufacturing Advanced Research in Virtual and Rapid Prototyping", CIRP sponsored, Leiria, Portugal;
- 49. "IPAS'2008 4th International Precision Assembly Seminar", Chamonix, França;
- 50. "BASYS 2008 8th IFIP International Conference on Information Technology for Balanced Automation Systems", Porto, Portugal;
- 51. "PRO-VE 2007 9th IFIP Working Conference on VIRTUAL ENTERPRISES", Poznan, Polónia;

- 52. "IPROMS 2008 Innovative PROduction Machines and Systems Conference 2008", Cardiff, Reino Unido;
- 53. Co-Chairman and President of the International Scientific Committee of "First International Conference on Business Sustainability BS '08", Ofir, Portugal, Junho 2008;
- 54. "SYMORG 2008 The 11th International Symposium on Management and Social Responsibility", University of Belgrade, Faculty of Organizational Sciences, Setembro 2008, Belgrado, Sérvia;
- 55. "IPROMS 2009 Innovative PROduction Machines and Systems Conference 2009", Cardiff, Reino Unido;
- 56. "CISTI'2009 4ª Conferência Ibérica de Sistemas e Tecnologias de Informação", Junho de 2009, Póvoa de Varzim, Portugal;
- 57. "PRO-VE 2009 10th IFIP Working Conference on VIRTUAL ENTERPRISES", Outubro 2009, Thessaloniki, Grécia;
- 58. "IPAS 2010 5th International Precision Assembly Seminar", Fevereiro 2010, Chamonix, França;
- 59. <IPROMS Researchers Symposium ...., Naples, 2009>
- 60. <SIE 2009, ...., Belgrade, 2009>
- 61. <ICME CIRP Int. conf. 2010, ...., Naples, 2010>
- 62. < Knowledge Management Rossi Setchi's conference>
- 63. <PROVE 2010>
- 64. <BASYS 2010>

#### Reviewer of the paper submitted to:

- 65. "2nd IEEE International Conference on Industrial Informatics: Collaborative information, one key for intelligent industrial environment INDIN '04", Berlim, Alemanha, 24-26 de Junho de 2004;
- 66. "INDIN 07 5th International Conference on Industrial Informatics", sponsored by the Industrial Electronics Society of the IEEE, Viena, Aústria;

## 1.5.6 Invited lectures on universities and international and national conferences/workshops/seminars

- 1. Putnik G. (1992) Selected Topics on Intelligent Manufacturing Systems, Invited Lecture, Departamento f PRoduction and Systems Engineering, University of Minho, Guimarães, Portugal;
- 2. Putnik G. (1999) *Distributed/Virtual Manufacturing System Cell*, Invited Lecture, TECHNION University, Haifa, Israel, (February 1999);
- 3. Putnik G. e Sousa R. (1999) Formal Description Techniques (FTD) for Manufacturing Systems, Invited Lecture, TECHNION University, Haifa, Israel, (February 1999);
- 4. Putnik G. (2000) *New organizational paradigms*, palestra por convite em *E-Manufacturing Seminar on Production Technologies and CIM*, Invited Lecture, IDIT Institute for Technological Innovation and Development, Santa Maria da Feira, Portugal, (November 2000);
- 5. Putnik G. (2001) *Virtual Enterprises A Strategic Research Project*, Invited Lecture, University of Belgrade, Belgrade, Jugoslávia, (March 2001);
- 6. Putnik G. (2001) *Virtual Enterprises Business Strategy and Scientific Challenge*, Invited Lecture, **Yugoslav Academy of Engineering**, Belgrado, Jugoslávia, (October 2001);
- 7. Putnik G. (2002) *Networking Dynamics*, palestra por convite em *e-Power: 1st Special Interest Group Meeting Inter Organizational Relationships*, Invited Lecture, IDIT Institute for Technological Innovation and Development, Santa Maria da Feira, Portugal, (March 2002);
- 8. Putnik G. (2002) Formalism vs. Formal Theory, Invited Lecture, Workshop de THINKcreative Thinking network of experts on emerging smart organizations IST-2000-29478 Project, Regional Meeting, Lisboa, Portugal, (July 2002);
- 9. Putnik G. (2002) *Networking dynamics*, Invited Lecture, Workshop of the THINKcreative Thinking network of experts on emerging smart organizations IST-2000-29478 Project, Regional Meeting, Lisboa, Portugal, (Jully, 2002);
- 10. Putnik G. (2002) Virtual enterprise reference models and implementations, Invited Lecture, Workshop of the THINKcreative Thinking network of experts on emerging smart organizations IST-2000-29478 Project, Regional Meeting, Lisboa, Portugal, (Jully 2002);
- 11. Putnik G. (2002) Formalisms, formal theories and dynamic (collaborative) network organizations, "Key-note" Invited Lecture, Workshop of the THINKcreative Thinking network of experts on emerging smart organizations IST-2000-29478 Project, Workshop on Formal Modeling Methods for Advanced Collaborative Networked Organizations, Funchal, Portugal, (February 2003);
- 12. Putnik G. (2003) *On Formal Theories of Manufacturing Systems and Enterprises*, Invited Lecture, PURDUE University, Department of Mechanical Engineering Technology, West Lafayette, Indiana, EUA, July 2003;
- 13. Putnik G. (2003) *Machine Learning A Theoretical Approach and Applications in Manufacturing Systems*, Invited Lecture, University of Ljubljana, Mechanical Engineering Faculty, Lubliana, Eslovénia, October 2003;

- 14. Frans M. van Eijnatten & Goran Putnik (2004) *Chaordic Systems Thinking: A Framework for Chaos & Complexity*, Invited Lecture, "NOBEM Introductory Workshop: 'Chaos and Complexity in Organisation and Management", Driebergen, Holanda, 21st October de 2004;
- 15. Putnik G. (2004) Virtual Enterprises: A Requirement For Strategic Information Systems and E-Commerce, Invited Lecture, MSc in Information Systems, and MSc in Electronic Commerce, Kingston University, London, Kingston upon Thames, Reino Unido, April 2004;
- 16. Putnik G. (2004) *Virtual Enterprises*, Invited Lecture, Tutorial, IX International Symposium, Faculty of Organizational Sciences, University of Belgrade, Zlatibor, Sérvia, June 2004;
- 17. Putnik G. (2005) Formal Theories in CNOs (Collaborative Networked Organizations), Invited Lecture, tutorial − WP5 − Internal Workshop № 2 of the project "ECOLEAD − European Collaborative Networked Organizations Leadership Initiative", European Community "Information Society Technology" Programme, Sixth Framework Programme FP6, IP 506956, Porto, March 2005;
- 18. Putnik G. (2009) *Virtuality in Manufacturing Systems and Enterprises: Thesis, Architecture and Implementations*, Invited Lecture, University of Ljubljana, Mechanical Engineering Faculty, Ljubljana, Eslovénia, December 2009;

## 1.5.7 Other lectures on international and national conferences/workshops/seminars

- 1. Putnik G. (1995) *Theoretical Issues on Intelligent Manufacturing*, palestra em "Workshop on Intelligent Manufacturing", 1st World Congress on Intelligent Manufacturing Processes & Systems, Mayaguez, Porto Rico;
- 2. Putnik G. (1996) Theoretical Problems on Manufacturing Systems Design and Control, palestra em "Workshop on Theoretical Problems on Manufacturing Systems Design and Control", Lisboa, Portugal;
- 3. Putnik G. (1997) Complexity Issues and Examples of Very Large Scale Knowledge Base for Manufacturing Systems, palestra em Special Session on Concurrent AL/AI Platform for Engineering Design and Manufacturing, "2nd World Congress on Intelligent Manufacturing Processes & Systems", Budapeste, Hungria;
- 4. Putnik G. (1998) Theoretical Problems on Manufacturing Systems Design and Control, palestra em "2<sup>nd</sup> Workshop on Theoretical Problems on Manufacturing Systems Design and Control", Praga, Chec Republic;
- 5. Putnik G. (1999) *OPIM System A New Organizational Paradigm for Competitive Enterprise*, palestra em International Seminar: Textile Science for XXI Century, Universidade do Minho, Guimarães, Portugal, (June 1999);

- 6. Putnik G. (2000) *Theoretical Problems on Manufacturing Systems Design and Control*, lecture on "3<sup>rd</sup> Workshop on Theoretical Problems on Manufacturing Systems Design and Control", Guimarães, Portugal, (November 2000);
- 7. Putnik G. (2000) *Virtual Enterprises A Strategic Research Project*, lecture on University of Vigo, Vigo, Spain, (December 2000);
- 8. Sousa, R. M., Putnik, G. D. (2000) *Introduction to Basic Concepts for a Formal Theory of Manufacturing Systems*, lecture on 3rd Workshop on Theoretical Problems on Manufacturing Systems Design and Control, University of Minho, Guimarães, Portugal;
- 9. Putnik, G. D., Sousa, R. M. (2000) *General Systems Theory: System Structuring*, lecture on 3rd Workshop on Theoretical Problems on Manufacturing Systems Design and Control, University of Minho, Guimarães, Portugal;
- 10. Putnik, G. D. (2000) *Inductive inference as a tool for system synthesis*, lecture on 3rd Workshop on Theoretical Problems on Manufacturing Systems Design and Control, University of Minho, Guimarães, Portugal;
- 11. Putnik, G. D., Eijnaten F. v. (2006) Chaos and Complexity Management in Organizations: Basic Definitions and Some Research Topics, palestra *X International Symposium SymOrg 2006*, Faculty of Organizational Sciences, University of Belgrade, Belgrado / Zlatibor, Serbia, June 2006;
- 12. Putnik, G. D., Sluga A. (2008) Meta-Organizations as Dynamic Reconfigurability Enablers for Inter-Enterprise Manufacturing System, lecture on CIRP meeting, CIRP, Paris, January 2008;
- 13. Putnik G. D. (2008) Manufacturing Systems Integration, Lecture on Faculty of Mechanical Engineering, University of Ljubljana, Lubliana, Eslovénia, Dezembro 2008;
- 14. Putnik, G. D. (2008) Metaphors of Sustainability: Some Examples from the Philosophy, Art and Science through the History, presentation on ECCON (European Chaos/Complexity in Organisations Network) 2008 Annual Meeting, Bergen aan Zee, Holanda, Outubro 2008;
- 15. Putnik, G. D. (2008) Higher Education Quality Management: The case of University of Minho (Portugal), presentation on SYMORG 2008 The 11th International Symposium on Management and Social Responsibility, University of Belgrade, Faculty of Organizational Sciences, Belgrado, Sérvia, Setembro 2008;
- 16. Putnik, G. D. (2008) Evaluation of the Impact of the Inter-enterprise Network Organization/ Virtual Enterprise (VE) Dynamic Reconfiguration on Product Time-To-Market, presentation on SYMORG 2008 - The 11th International Symposium on Management and Social Responsibility, University of Belgrade, Faculty of Organizational Sciences, Belgrado, Serbia, September 2008;
- 17. Putnik, G. D., Raja V. (2008) Building a Combined Roadmap for Integrating Particular Research Area Roadmaps for Innovative Production Machines and Systems, presentation on the 1st International Conference on Business Sustainability 2008 Management, Technology and Learning for Individuals, Organisations and Society in Turbulent Environments, June 2008, Ofir, Portugal;
- 18. Putnik, G. D., Szecsi T., Heek R. v. (2008) Radical Roadmaping for Innovative Production Machines and Systems, presentation on the 1st International Conference on Business

Sustainability 2008 - Management, Technology and Learning for Individuals, Organisations and Society in Turbulent Environments, June 2008, Ofir, Portugal;

19. Putnik, G. D. (2010) ON FORMAL THEORIES OF MANUFACTURING SYSTEMS: Basic Notions, Model and Implications, lecture on CIRP meeting, CIRP, Paris, January 2008;

## 1.5.8 Other relevant activities in the scientific área of Production Engineering

This chapter presents several other activities not considered as activities and scientific results or scientific research. However, these are considered relevant in an "extended" context of scientific and professional activities, such as e.g. activities on "networking", structural, organization promotion, and the like.

#### At the University of Belgrade:

- \*2 Several technical seminars and workshops for companies on behalf of The Society of Tool Engineers and Technicians to Belgrade.
- \*3 Several technical seminars and workshops for companies on behalf of the Department of Production Engineering, Faculty of Mechanical Engineering, University of Belgrade.
- \*3 Teaching training courses on the programming language FORTRAN IV on behalf Department of Production Engineering, Faculty of Mechanical Engineering University of Belgrade.
- Organization of International Seminar with Prof. Virgilio Machado, Universidade Nova de Lisboa:

Seminar on "Intelligent Systems - A Base for the New Industrial Revolution" (lecturers: Liebowitz J., Milacic V., Putnik G., Barahona P., Machado V., Furnee W.), Universidade Nova de Lisboa, FCT, Industrial Engineering Department, Lisbon, Portugal, 1992. (publications ref. 41., 42., section 1.1.3.2)

#### At the University of Minho:

• Contribution to development of the Industrial Management and Systems (GIS) group disciplinary group of Production and Systems Engineering, collaborating with Dr. Silvio do

<sup>&</sup>lt;sup>2</sup> These activities (\*), given its bivalent nature, scientific and teaching, can be considered as scientific lectures, business and / or educational training activities as extra-culicular. For this reason, these activiades are repeated in Section 2.4.1.

Carmo Silva (the first coordinator of the grpoup) setting the base for programme and human resources development - in terms of doctoral theses, projects and research directions – of the Industrial Management and Systems group (GIS)<sup>3</sup>.

- Creation of the MSc course in Computer Integrated Manufacturing (MPIC) at the University of Minho, in collaboration with Dr. Silvio do Carmo Silva (prinicpal promoter) as the basis the base for scientific programme and human resources development - in terms of Masters theses as mechanisms for scientific research – for the Industrial Management and Systems (GIS) group.
- Promotion of the research area of Virtual Enterprise at the University of Minho which resulted in the creation of the research (and teaching) laboratory "Laboratory for Virtual Enterprises" (LABVE) and a significant number of research projects, PhD and MSc projects (completed and in progress) (see Section 1.3), and the creation of the subject "Virtual Enterprises" and specialization of the 2nd cycle (see Section 2.1.2.1, 2.1.2.3 and this section)<sup>4</sup>.
- Foundation of the research (and teaching)laboratory "Laboratory for Virtual Enterprises (LABVE)"
- Updating the "Laboratory of automatic production systems" (LASAP) for its integration into the international network of laboratories within the demonstrator project "Ubiquitous International Manufacturing System (UMS)", the within the global demonstrator *efm* European Future Manufacturing, Project NoE I\*PROMS (see ref. 8, Section 1.2.1 and ref. Articles: 166, 188, 191, Section 1.1.3.2), as a platform for research of Manufacturing Systems and Virtual Enterprises future concepts, in the area of manufacturing.
- Foundation of the Research Group "Distributed and Virtual Manufacturing Systems and Enterprasis" at the Interdisciplinary Center for Production Technologies and Energy (CITEPE) of the FCT, with the "plurianual" funding "framework" by the national Foundation for Science and Technology FCT (2008).
- Organização dos seguintes eventos científicos e académicos na Universidade do Minho e em outros lugares<sup>4</sup>, que contribuíram para a promoção da Universidade do Minho Organization of the following scientific and scholar events at the University of Minho and elsewhere, which contributed to the promotion of the University of Minho:
  - 1. 5<sup>as</sup> Jornadas Nacionais em Projecto, Planeamento e Produção Assistidos por Computador (*The 5th National Meeting on the Computer Aided Design, Planning and Production*), Guimarães, 1995, *Role: Member of the Organizational and Scientific Committee;*
  - 2. 1<sup>st</sup> International Workshop "Workshop on Theoretical Problems on Manufacturing Systems Design and Control", Lisboa, 1996. (em cooperação com a "2nd IEEE/ECLA/IFIP International Conference on Architectures);
  - 3. 2<sup>nd</sup> International Workshop "Workshop on Theoretical Problems on Manufacturing Systems Design and Control", Praga, 1998. (in cooperation with the "3rd IEEE/IFIP

Esta contribuição está repetida na parte "Pedagogica" por causa da sua natureza bivalente e acoplada: científica e pedagógica, e por requisitos da estrutura da apresentação do CV no âmbito od Edital

<sup>&</sup>lt;sup>4</sup> A participação em commisões cientificas das mesmas estão referidas na seção 1.5.5.

- International Conference on Information Technology for BALANCED AUTOMATION SYSTEMS in Manufacturing BASYS '98", Praga, República Checa, 1998.), Role:Workshop Chair;
- 4. 3<sup>nd</sup> Workshop (national participation) "Workshop on Theoretical Problems on Manufacturing Systems Design and Control", Guimarães, 2000, Role: Workshop Chair;
- 5. "First International Conference on Performance Measures, Benchmarking and Best Practices in New Economy BUSINESS EXCELLENCE 03", 10-13 June, Guimarães, Portugal, in cooperation with Prof. A. Gunasekaran (University of Massachussetts Dartmouth, EUA), Role: Conference Co-Chair (with Prof. A. Cunasekaran), Presiden of the Sciientific and Organization Committee (June 2003);
- "First International Conference on Business SUSTAINABILITY 2008 Management, Technology and Learning for Individuals, Organisations and Society in Turbulent Environments", June 2003, Ofir, Portugal. Founder and Co-Chairman with Prof. P. Ávila (ISEP);
- Promotion of cooperation with the following universities (as part of cooperation through the projects or individually):
  - 1. University of Parma, Parma, Itália,
  - 2. Tennessee Technological University, EUA,
  - 3. Tracian University, Stara Zagora, Bulgária,
  - 4. Economical University of Varna, Varna, Bulgária,
  - 5. University of Belgrade, Belgrado, Jugoslávia,
  - 6. University of Massachusetts, Dartmouth, EUA,
  - 7. TECHNION, Haifa, Israel,
  - 8. University of Ljubljana, Eslovénia,
  - 9. PURDUE University, West Lafayette, Indiana, EUA,
  - 10. University of Kingston, Kingston-upon-Thames, Reino Unido,
  - 11. Group of Universities within the project "TEMPUS Implementing Quality Assurance in Serbian Universities" 6 Universidades da União Europeia e 5 Universidades da Sérvia (Sérvia e Montenegro),
  - 12. Network of Universities and companies within the project I\*PROMS NoE ("Network-of-Excellence"), programa FP6 30 "core" partners and more than 80 associated partners.

### 2. Pedagogical activities

A resume of these activities is presented in the Section 0.3, see p.3.

Detailed report available upon request.

### 3. Relevant activities in other areas

### 3.1 <u>Popularization and dissemination of science</u> and education in the area of production

- 1. Cooperation with Belgrade Television (TV Beograd):
  - Putnik G. D., Dzaja A.
    - "MACHINES AND TOOLS", A serie of 10 episodes lasting 30 minutes each. The aim of the serie was dissemination and popularization of manufacturing, oriented to primary and secondary schools.
    - Dzaja A., Putnik G. D. screenplay, Putnik G. D. narrator and presenter.
    - Produced by the **1st Channel of the Belgrade Television**, Department of Educational Programmes, 1985.
    - (The serie was repeated during 5 years.)
  - Putnik G. D. < Several reports from technical fairs and scientific conferences >.
     Produced by the 1st Channel of the Belgrade Television, Department of Scientific Programmes, 1985-1990.

## 3.2 <u>Publications and lectures in the area of art and philosophy</u>

- 1. Putnik G. D.: "Images of Machines and Machines of Images", Lecture in the Musem of Modern Art, Belgrade, December 1992. (to be published)
- 2. Putnik G. D.: "*Civilization or The End*", Lecture and film in the *Musem of Modern Art*, Belgrade, January 1994.
- 3. Putnik G. D.: "Introduction in readings of M. Radovanovic's text", Belgrado, 1995.

  Preface to the book: Radovanovic M. "Desappeared Machines Reanimation Art", Belgrade, 1995.

- 3a. Putnik G. D.: "Presentation of the book 'Desappeared Machines Reanimation Art' by Milan Radovanovic", Journal for History of Science FLOGISTON, Museum of Science and Technics, Vol. 2, No. 4, pp 260-262, Belgrade, 1995. (an extract form the text 3.)
- 4. Putnik G. D.: "XXI Century The Century of the Big Change or The Century Which will not Exist ", Lecture in the Musem of Modern Art, Belgrade, November 1996. (to be published)
- 5. Putnik G. D.: "*Drama of small movements, or Off-On*", Preface for the Sculpture Exposition catalogue "Lamps" by Predrag Caranovic, Galery *Singidunum*, Belgrade, March 2003.

### 3.3 **Projects in the area of art and philosophy**

 Smiljanic Z. and Putnik G. D. founded in 1992, in Belgrade, the research, artistic and philosophical Project "The New Constructional Medium" on phenomenology of images and fiures. Along the work, the title of the Project changed to "One", "Jedno" (serb.) ("Uno" port.).

#### 1st phase of the project (1992):

participants: Putnik G. D. (*Dr.Sc., Dipl. Eng.*), Smiljanic Z. (*paintor*), Surjanac M. (*Dipl. Arquit., designer*), Bunusevac K. (*paintor dipl.*), Radovanovic M. (*paintor*), Petrovic A. (*M.Sci., Dipl. Phil.*) guests: Pantic N. (*Prof., Dr. Sc., Academician*), Jovanovic B. (*Dr. Sc., Dipl. Arqueol.*), Lazic M. (*M.Sc., Dipl. Hist., Dipl. Theol.*)

#### 2º fase do projecto (1993-1998):

participants: Putnik G. D., Smiljanic Z., Surjanac M., Bunusevac K.

## 3.4 Other activities in the area of art and philosophy

Putnik G. D. – Jury member for the evaluation of paintings, sculptures and installations in the category 'New Technologies' (2nd of two groups of works) of "4th International Bienale of the Young Artists of Vila Verde" ("4ª Bienal Internacional de Arte Jovem de Vila Verde"), Vila Verde, May 2005.