

Selected publications

Monographs and books:

1. **Babić B.**, **FLEXY – Intelligent manufacturing system for FMS design**, monograf (in Serbian), University of Belgrade, Faculty of Mechanical Engineering, ISBN 86-7083-250-X (1994)
2. Kalajdžić M., Tanović Lj., **Babić B.**, Glavonjić M., Miljković Z., Puzović R., Kokotović B., Popović M., Živanović S., Tošić D., Vasić I., **Cutting technology – Handbook** (in Serbian), University of Belgrade, Faculty of Mechanical Engineering, (Editions 1998, 1999, 2001, 2004, 2005, 2006, 2008, 2012).
3. **Babić B.**, **Process planning**, (in Serbian), University of Belgrade, Faculty of Mechanical Engineering, (Editions 1999, 2006).
4. **Babić B.**, **Computer Integrated Manufacturing Systems and Processes**, (in Serbian), University of Belgrade, Faculty of Mechanical Engineering, (2017).

Articles in leading international journals:

5. Tomic B., Spasojević-Brkić V., Karapetrović S., Pokrajac S., Milanović D., **Babić B.R.**, Djurdjević T. (2017) Organizational culture, quality improvement tools and methodologies, and business performance of a supply chain, *Proceedings of The Institution of Mechanical Engineers Part B-Journal of Engineering Manufacture*, vol. 231, no. 13, pp. 2430.
6. Benisa M., **Babić B.R.**, Grbović A., Stefanović Z., (2012) Computer-Aided Modeling of the Rubber-Pad Forming Process, *Materiali in Tehnologije*, vol. 46, br. 5, str. 503-510.
7. **Babić B.**, Axiomatic design of flexible manufacturing systems, *International Journal of Production Research*, Vol. 37, No. 5, (pp. 1159-1173), (1999)
8. **Babić B.**, Nešić N., Miljković Z., A review of automated feature recognition with rule-based pattern recognition, *Computers in Industry*, Vol. 59 No. 4, (pp. 321–337), (2008)
9. **Babić B.R.**, Miljković Z., Vuković N., Antić V (2012) Towards Implementation and Autonomous Navigation of An Intelligent Automated Guided Vehicle in Material Handling Systems, *Iranian Journal of Science And Technology-Transactions of Mechanical Engineering*, vol. 36, (M1), pp. 25-40
10. **Babić B.R.**, Nešić N, Miljković Z.(2011) Automatic feature recognition using artificial neural networks to integrate design and manufacturing: Review of automatic feature recognition systems, *AI EDAM - Artificial Intelligence for Engineering Design Analysis and Manufacturing*, vol. 25, (3), pp 289-304
11. Stamenković D., Kojić D., Matija L., Miljković Z., **Babić B.** (2010) Physical Properties Of Contact Lenses Characterized By Scanning Probe Microscopy And Optomagnetic Fingerprint, *International Journal of Modern Physics B*, vol. 24, (6-7), pp 825-834
12. Bojović B., Miljković Z., **Babić B.**, Koruga Dj. (2009) Fractal Analysis For Biosurface Comparison And Behaviour Prediction, *Chemical Industry*, vol. 63, (3), pp. 239-245
13. Miljković Z., Vuković N., Mitić M., **Babić B.R.** (2013) New hybrid vision-based control approach for automated guided vehicles, *International Journal of Advanced Manufacturing Technology*, vol. 66, br. 1-4, str. 231-249
14. Miljković Z., Mitić M., Lazarević M., **Babić B.R.** (2013) Neural network Reinforcement Learning for visual control of robot manipulators, *Expert Systems with Applications*, vol. 40, br. 5, str. 1721-1736
15. Milačić, V., Kalajdžić M., Milutinović D., Čović N., **Babić B.**, Robotic Environment in FMS, *Engineering & Automation, International Journal, ISSN 0234-6206, Vol 3.* (pp 10-20), (1992)
16. **Babić B.**, A Framework for Intelligent Design of Flexible Manufacturing Systems, *Mathematical Modelling and Scientific Computing*, Vol 8, 1997, ISSN 1067-0688,

Papers presented on international conferences published in special editions

17. Milačić, V., **Babić, B.**, An Approach to the Simulation for FMS Design and Cost Analysis, *Information Control Problems in Manufacturing Technology 1989*, eds.E.A. Puente and L. Nemes, (pp 251-255), ISBN: 0-08-037023-3, Elsevier, (1990)
18. **Babić B.**, Towards an intelligent system for FMS design, *Balanced Automation Systems II - Implementation challenges for anthropocentric manufacturing*, (pp. 349-346), Chapman & Hall, ISBN 0-412-78890-X, (1996)
19. Miljković Z., **Babić B.**, Adaptive Behaviour of Autonomous Mobile Robot Based on Heterogeneous Neural Networks, *Advances in Systems, Signals, Control and Computers*, Vol III, IAAMSAD and the South African branch of the Academy of Nonlinear Sciences, ISBN 0-620-23136-X, (pp. 129-133), South Africa (1998).
20. **Babić B.**, Putnik G., A hierarchical model of distributed simulation, *Global Production Management*, (pp. 26-33), Kluwer Academic Publishers, ISBN 0-7923-8605-1 (1999)
21. **Babić B.**, A Hierarchical Distributed Simulation for Virtual Manufacturing Systems, *Development and Practice of Artificial Intelligence Techniques*, (pp. 226-230), Published by IAAMSAD, Durban - South Africa, ISBN 0-620-24836-X, (1999)
22. Miljković Z., **Babić B.**, Decomposing functionality of the feature recognizer based on artificial neural network system, *Development and Practice of Artificial Intelligence Techniques*, (pp. 248-250), Published by IAAMSAD, Durban - South Africa, ISBN 0-620-24836-X, (1999)
23. Milačić, V., **Babić, B.**, A Contribution to the Simulation and Optimization Method for FMS, *CIRP Manufacturing Systems*, WISU-Verlag & Faculty Press International Ltd. Aachen, Vol 18, No. 3, ISSN: 0176-3377, (pp. 5-9), (1989)

Papers presented on international conferences published in proceedings

24. **Babić B.**, Multi-agent architecture for Simulation of Distributed Manufacturing Systems, *Journal of Applied Computer Science – Special Issue: Selected Applications of Artificial Intelligence*, ISSN 1507-0360, Vol. 8 No. 2, (pp. 119-130), (2000).
25. Miljković Z., **Babić B.**, Machine-Part Family Formation by Using ART-1 Simulator and FLEXY, *FME Transactions*, Vol 33, Number 3, ISSN 1451-2092, (pp. 157- 162), (2005)
26. Miljković Z., **Babić B.**, Empirical Control Strategy for Learning Industrial Robot, *FME Transactions*, Vol 35, Number 1, ISSN 1451-2092, (pp. 1- 8), (2007)
27. Milačić, V., **Babić, B.**, Concept of FMS Design Machine, *World Congress on Expert Systems*, Proceedings (pp 658-665) Lisabon (1994)
28. **Babić B.**, Milačić V., Čović N., FLEXY - Intelligent System for FMS Design, *The First World Congress on Intelligent Manufacturing Processes & Systems*, Proceedings (pp 93-104), Puerto Rico (1995)
29. **Babić B.**, Development of an Intelligent CAD-CAPP Interface, *International Conference on Intelligent Technologies in Human - Related Sciences ITHURS'96*, Proceedings vol. II (pp.351-357), Leon - Spain, (1996)
30. **Babić B.**, Miljković Z., Feature Recognition as the Basis for Integration of CAD and CAPP systems, *The Second World Congress on Intelligent Manufacturing Processes & Systems*, Proceedings (pp 596-601), Budapest (1997)
31. Putnik G.D., Sousa R.M., Moreira J.F., Carvalho J.D., Spasić Ž., **Babić B.**, Distributed/Virtual Manufacturing System Cell: An Experimental Installation, *The 4th International Seminar "Intelligent Manufacturing Systems - Theory and Practice"*, (pp. 59-68), Beograd, (1998)
32. **Babić B.**, Architecture of distributed simulation system, *International Conference on Manufacturing Engineering (ICMEN)* (ed. K.-D. Bouzakis), (pp. 357-363), Greece, (2002)

33. Babić J., Kalajdžić M., **Babić B.**, A fully integrated process planning system for rotational parts, International Conference on Manufacturing Engineering (ICMEN) (ed. K.-D. Bouzakis), (pp. 365-372), Greece, (2002)
34. Miljković Z., **Babić B.**, Kalajdžić M., Manufacturing similarity identification in group technology design based on the "ART-1 simulator", International Conference on Manufacturing Engineering (ICMEN) (ed. K.-D. Bouzakis), (pp. 325-335), Greece, (2002)
35. **Babić B.**, Framework for dynamic process planning and scheduling, 2nd International Conference on Manufacturing Engineering ICMEN 2005, pp. 721-729, Khalitea, Greece, ISBN 960-243-614-X, 2005.
36. **Babić, B.**, Bojović, B., Kalajdžić, M., Miljković, Z., Topography and Phase Images Investigation of the Used RGP Contact Lens Inner Surface, Proceedings of the 3rd International Conference on Manufacturing Engineering (ICMEN 2008) and EUREKA Brokerage Event, pp. 405-411, Kallithea of Chalkidiki, Greece, 1-3 October, 2008.
37. Bojović, B., Kalajdžić, M., Miljković, Z., **Babić, B.**, Fractal Approach for Substrates Surface Topography Image Evaluation, Proceedings of the 3rd International Conference on Manufacturing Engineering (ICMEN 2008) and EUREKA Brokerage Event, pp. 443-452, Kallithea of Chalkidiki, Greece, 1-3 October, 2008.
38. Miljković, Z., Vuković, N., **Babić, B.**, Mobile Robot Localization in a Manufacturing Environment, Proceedings of the 3rd International Conference on Manufacturing Engineering (ICMEN 2008) and EUREKA Brokerage Event, pp. 485-494, Kallithea of Chalkidiki, Greece, 1-3 October, 2008.
39. Babić, J., **Babić, B.**, Borovčanin, D., Marjanović, M., Robust Design Based on Synergetic Use of TRIZ and Axiomatic Design, Proceedings of the 4th International Conference on Manufacturing Engineering (ICMEN 2011), pp. 197-204, Thessaloniki, Greece, 3-5 October, 2011.
40. **Babić, B.**, Nešić, N., Miljković, Z., Automatic Feature Recognition System for Prismatic Parts Using STEP-based Feature Extraction and ANN-based Pattern Recognition, Proceedings of the 4th International Conference on Manufacturing Engineering (ICMEN 2011), pp. 295-304, Thessaloniki, Greece, 3-5 October, 2011.
41. Vuković, N., Miljković, Z., **Babić, B.**, Čović, N., Towards Implementation of Intelligent Mobile Robots in a Manufacturing Environment, Proceedings of the 4th International Conference on Manufacturing Engineering (ICMEN 2011), pp. 367-376, Thessaloniki, Greece, 3-5 October, 2011.
42. Miljković, Z., Mitić, M., **Babić, B.**, Diryag, A., Q-Learning Algorithm for a Mobile Robot Obstacle Avoidance in an Unknown Environment Based on Artificial Neural Networks, Proceedings of the 4th International Conference on Manufacturing Engineering (ICMEN 2011), pp. 431-440, Thessaloniki, Greece, 3-5 October, 2011.