

Lista de lucrări – Alexandru Dumitrache

În legătură cu *disciplinele* din postul didactic în cauză, *domeniul* asociat și/sau, *justificat*, discipline și domenii înrudite cu acestea. Lucrările sunt simbolizate conform Anexei 11.

I. LUCRĂRI RELEVANTE incluse în format electronic în dosar, care se pot regăsi și în celelalte categorii de lucrări:

- Ris** - Alexandru Dumitrache, Theodor Borangiu, *Image-based Milling Toolpaths with Tool Engagement Control for Complex Geometry*, Engineering Applications of Artificial Intelligence, Elsevier, ISSN 0952-1976.
DOI 10.1016/j.engappai.2011.09.026, WOS: 000308122700006.
Ultimul factor de impact: 2.368.
- Ris** - Theodor Borangiu, Alexandru Dumitrache, Anamaria Dogar, *Heuristic Solution for Constrained 7-DOF Motion Planning in 3D Scanning Application*, Control Engineering Practice, vol. 20, issue 2, 2012, pp. 93-101, ISSN 0967-0661,
DOI 10.1016/j.conengprac.2011.07.008, WOS: 000299987600001.
Ultimul factor de impact: 1.830.
- Ris** - Alexandru Dumitrache and Theodor Borangiu, *An Integrated Robot Simulation Workspace for Real Time Collision Free 3D Laser Scanning Applications*, The Journal of Control Engineering and Applied Informatics (CEAI), Vol.13, No. 1, pp. 25-34, 2011, ISSN 1454-8658.
WOS: 000289043500005.
Ultimul factor de impact: 0.449.
- Vi** - Alexandru Dumitrache and Nick Andrei Ivănescu and Theodor Borangiu, *Robot Sandbox: an Open Source Robot Simulator for Classroom Use*, Proceedings of the RAAD 2013 22nd International Workshop on Robotics in Alpe-Adria-Danube Region September 11-13, 2013, Portorož, Slovenia.
- Rio** - Alexandru Dumitrache, Theodor Borangiu, *Collision and proximity avoidance for robust behaviour of real-time robot applications*, International Journal of Mechanics and Control (JoMaC), Vol. 12, No. 01, 2011, ISSN 1590-8844.
- Ris** - Theodor Borangiu, Anamaria Dogar, Alexandru Dumitrache, *Modeling and Simulation of Short Range 3D Triangulation-Based Laser Scanning System*, Proc. of the Intl. Conf. on Computers, Communications and Control – ICCCC'08, 15-17 Intl. Journal of Computers, Communications & Control – IJCCC, Vol. 3, Suppl. Issue, 2008, pp. 190-195.
- Vi** - Theodor Borangiu, Anamaria Dogar, Alexandru Dumitrache, *Automatic Generation of 3D Machining Surfaces with Tool Compensation from Grey Level Image Models*, Preprints of IFAC Workshop on Intelligent Manufacturing Systems - IMS'07, Alicante, Spania, 23-25 mai 2007.
- Vis** - Dumitrache, A; Zamora, MA; Toledo-Moreo, R; Skarmeta, AG, *Hybridized GPS/DR Positioning System With Unknown Initial Heading For Land Vehicles*, ITSC 2008, 978-1-4244-2111-4, WOS:000262929300162.

II. TEZA (E) DE DOCTORAT (T)

Tehnici optimale de descriere completă a formelor complexe 3D prin scanare robotizată în vederea reproducerii inline și a controlului de calitate

Universitatea Politehnica din Bucuresti, 2012.

Conducător de doctorat: Prof.dr.ing. Theodor Borangiu

Site proiect: www.robotscan.cimr.pub.ro

III. CĂRȚI PUBLICATE (C)

Cb - Theodor Borangiu, Alexandru Dumitrache, Florin Daniel Anton, *Programarea robotilor*. Editura AGIR, ISBN 978-973-720-337-3.

IV. ALTE MATERIALE PUBLICATE (I,D)

D - Theodor Borangiu, Alexandru Dumitrache, *Robotic Arms with 3D Vision Capabilities*. Capitol în cartea *Advances in Robot Manipulators*, InTech, ISBN 978-953-307-070-4.

D - Alexandru Dumitrache, Theodor Borangiu, Sylvain Pateloup, Grigore Gogu, *Knowledge-Based Adaptive Machining Concept for Service Oriented Architectures*, capitol în cartea *Service Orientation in Holonic and Multi-Agent Manufacturing Control*, seria *Studies in Computational Intelligence*, Springer, ISBN 978-3-642-27449-7.

V. ARTICOLE / STUDII IN EXTENSO PUBLICATE (R,V)

Ris - Alexandru Dumitrache, Theodor Borangiu, *Image-based Milling Toolpaths with Tool Engagement Control for Complex Geometry*, *Engineering Applications of Artificial Intelligence*, Elsevier, ISSN 0952-1976.

DOI 10.1016/j.engappai.2011.09.026, WOS: 000308122700006.

Ultimul factor de impact: 2.368.

Ris - Theodor Borangiu, Alexandru Dumitrache, Anamaria Dogar, *Heuristic Solution for Constrained 7-DOF Motion Planning in 3D Scanning Application*, *Control Engineering Practice*, vol. 20, issue 2, 2012, pp. 93-101, ISSN 0967-0661,

DOI 10.1016/j.conengprac.2011.07.008, WOS: 000299987600001.

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Ris - Alexandru Dumitrache and Theodor Borangiu, *An Integrated Robot Simulation Workspace for Real Time Collision Free 3D Laser Scanning Applications*, *The Journal of Control Engineering and Applied Informatics (CEAI)*, Vol.13, No. 1, pp. 25-34, 2011, ISSN 1454-8658.

WOS: 000289043500005.

Ultimul factor de impact: 0.449.

Ris - Theodor Borangiu, Anamaria Dogar, Alexandru Dumitrache, *Modeling and Simulation of Short Range 3D Triangulation-Based Laser Scanning System*, *Proc. of the Intl. Conf. on Computers, Communications and Control – ICCCC'08*, 15-17 Intl. Journal of Computers, Communications & Control – IJCCC, Vol. 3, Suppl. Issue, 2008, pp. 190-195.

Ultimul factor de impact: 0.627.

Vi - Alexandru Dumitrache, Theodor Borangiu, Silviu Răileanu, *Robotic 3D surface laser scanning for feature-based quality control in holonic manufacturing*, RAAD 2016, Serbia, DOI 10.1007/978-3-319-49058-8_8.

Vi - Alexandru Dumitrache and Nick Andrei Ivănescu and Theodor Borangiu, *Robot Sandbox: an Open Source Robot Simulator for Classroom Use*, *Proceedings of the RAAD 2013 22nd International Workshop on Robotics in Alpe-Adria-Danube Region* September 11-13, 2013, Portorož, Slovenia.

Rio - Alexandru Dumitrache, Theodor Borangiu, *Collision and proximity avoidance for robust behaviour of real-time robot applications*, *International Journal of Mechanics and Control (JoMaC)*, Vol. 12, No. 01, 2011, ISSN 1590-8844.

- Rio** - Theodor Borangiu, Anamaria Dogar, Alexandru Dumitrache, *Calibration of Wrist-Mounted Profile Laser Scanning Probe using a Tool Transformation Approach*, International Journal of Mechanics and Control (JoMaC), Vol. 11, No. 01, 2010, ISSN 1590-8844.
- Vi** - Alexandru Dumitrache and Theodor Borangiu, *Open Source Framework for Real-Time Robot Simulation and Collision Avoidance*, 18th IFAC World Congress – IFAC 2011, Milano, Italia.
- Vi** - Theodor Borangiu, Anamaria Dogar, Alexandru Dumitrache, *Calibration of Wrist-Mounted Profile Laser Scanning Probe using a Tool Transformation Approach*, The 18th Intl. Workshop on Robotics in Alpe-Adria- Danube Region – RAAD’09, Brasov, 25-27 mai 2009, ISBN 978-606-521-315-9.
- Vi** - Theodor Borangiu, Alexandru Dumitrache, Anamaria Dogar, *Flexible 3D Trajectory Teaching and Following for Various Robotic Applications*, The 9th Intl. IFAC Symposium on Robot Control - SYROCO’09, Gifu, Japonia, 9-12 Septembrie 2009.
- Vi** - Theodor Borangiu, Anamaria Dogar, Alexandru Dumitrache, *Generation of Adaptive Robot Scanning Paths for 3D Surface Reconstruction*, Proc. of Intl. Conf. ROBOTICA’08, Bras , ov, 13-14 noiembrie 2008.
- Vi** - Theodor Borangiu, Anamaria Dogar, Alexandru Dumitrache, *Constraints-based Motion Planning for an Automatic, Flexible Laser Scanning Robotized Platform*, Proc. of IEEE Intl. Conf. on Automation, Quality and Testing, Robotics – AQTR 2008 , Cluj-Napoca, 22-25 mai, ISBN 978-1-4244-2576-1.
- Vi** - Theodor Borangiu, Anamaria Dogar, Alexandru Dumitrache, *Implementation Issues Regarding a 3D Robot-based Laser Scanning System*, Proc. of the Intl. Conference CONTROLO’08, Utad, Vila Real, Portugalia, 21-23 iulie 2008.
- Vi** - Theodor Borangiu, Anamaria Dogar, Alexandru Dumitrache, *Integrating a Short Range Laser Probe with a 6-DOF Vertical Robot Arm and a Rotary Table*, Proc. of the 17 th Intl. Workshop on Robotics in Alpe-Adria-Danube Region – RAAD’08, Ancona, Italia, 15-17 sep. 2008, ISBN 978-88-903709-0-8, pp. 14.
- Vi** - Theodor Borangiu, Nick Ivănescu, Silviu Răileanu, Andrei Rosu, Florin Daniel Anton, Silvia Anton, Anamaria Dogar, Alexandru Dumitrache, *Holonic Manufacturing Control with Robot-Vision Part Supply*, Proc. of the National Conf. “Excellence Research – A Way to Innovation“, Bras , ov, 27-29 iulie 2008, ISSN 1844-7090, pp. 146-1–146-6.
- Vi** - Theodor Borangiu, Nick Ivănescu, Anamaria Dogar, Alexandru Dumitrache, Andrei Rosu, *Continuous Path Following with Applications in Different Robotic Tasks*, Proc. of the 16 th Intl. Workshop Robotics in Alpe-Adria-Danube Region – RAAD’07, Ljubljana, Slovenia, 7-9 iunie 2007, ISBN 978-961-243-067-2.
- Vi** - Theodor Borangiu, Anamaria Dogar, Alexandru Dumitrache, Florin Daniel Anton, Silvia Anton, Nick Ivanescu, *Embedded Numeric-Adaptive Machining Control Based on Data Fusion*, Preprints of the IFAC Conf. on Cost Effective Automation in Networked Product Development and Manufacturing – CEA’07, Monterrey, Mexic, 2-5 octombrie 2007.
- Vi** - Theodor Borangiu, Anamaria Dogar, Alexandru Dumitrache, *Automatic Generation of 3D Machining Surfaces with Tool Compensation from Grey Level Image Models*, Preprints of IFAC Workshop on Intelligent Manufacturing Systems - IMS’07, Alicante, Spania, 23-25 mai 2007.
- Vis** - Dumitrache, A; Zamora, MA; Toledo-Moreo, R; Skarmeta, AG, *Hybridized GPS/DR Positioning System With Unknown Initial Heading For Land Vehicles*, ITSC 2008, ISBN 978-1-4244-2111-4, WOS:000262929300162.