

Published papers 2008-2018

Paper published in 2008

1. D. Pîslă, N. Plitea, C. Vaida, B. Prodan, A. Vidrean, M. Glogoveanu, L.**Scurtu**, C. Sabou, D. Leşe, M. Suci: *Innovative development of parallel microrobots with six degrees of freedom with four and five guiding kinematic chains of the platform*, Acta Technica Napocensis Vol.III, 51, ISSN 1221-5872, Cluj-Napoca, 2008.
2. N. Plitea, D. Pîslă, C. Vaida, B. Prodan, A. Vidrean, C. Sabou, D. Leşe, M. Glogoveanu, L.**Scurtu**, M. Suci: *Innovative development of parallel microrobots with six degrees of freedom and six guiding kinematic chains of the platform*, Acta Technica Napocensis Vol.III, 51, ISSN 1221-5872, Cluj-Napoca, 2008.

Paper published in 2009

3. F. Graur, D. Pîslă, L. **Scurtu**, et al.: *Liver 3D Reconstruction Modalities - The First Step Toward a Laparoscopic Liver Surgery Simulator*, IFMBE Proceedings, 26, 251-257, 2009.

Paper published in 2010

4. F. Graur, L. **Scurtu**, L. Furcea, N. Plitea: *Training Platform for Robotic Assisted Liver Surgery - the Surgeon Point of View*, New Trends in Mechanism Science, ISBN 978-90-481-9688-3, Proceeding in Eucomes Conference, 2010, Cluj,România.
5. F. Graur, M. Frunza, R. Elisei, L. Furcea, L. **Scurtu**, C. Radu și alții: *Ethics in Robotic Surgery and Telemedicine*, New Trends in Mechanism Science, ISBN 978-90-481-9688-3, Proceeding in Eucomes Conference, 2010, Cluj, România.

Paper published in 2011

6. L. **Scurtu**, D. Pîslă, C. Vaida, D. Leşe and N. Plitea: *Inverse and direct geometrical model of a new surgical robot with five degrees of freedom*, Proceedings of the 1st International Conference on Quality and Innovation in Engineering and Management, Cluj-Napoca, March 17th-19th, 2011.
7. L. Furcea, F. Graur, L. **Scurtu**, B. Gherman, N. Plitea, D. Pîslă, C. Vaida, O. Deteşan, A. Szilaghy, H. Neagoş, A. Mureşan, L. Vlad : *Avantajele implementării unei platforme de e-learning pentru chirurgia laparoscopică hepatică asistată robotic*”, Chirurgia, 2011.
8. D. Leşe, D. Pîslă, C. Vaida, L. **Scurtu** and N. Plitea: *Inverse and direct geometrical model of a new reconfigurable parallel robot*, Proceedings of the 1st International Conference on Quality and Innovation in Engineering and Management, Cluj-Napoca, March 17th-19th, 2011.
9. L. **Scurtu**, N. Plitea: *Kinematics, Singularity Analysis of a New Surgical Robot with Five Degrees of Mobility*, Proceedings of the PRODOC Conference, Cluj-Napoca, 2011.
10. L. **Scurtu**, N. Plitea, *Kinematic model of a new surgical robot with five degrees of freedom*, Acta Technica Napocensis Vol. 54, ISSN 1221-5872, Cluj-Napoca, 2011.

11. L. Scurtu, N. Plitea: *Dynamic model of a new surgical parallel robot with five degrees of freedom*, Acta Technica Napocensis, Vol. 54, Issue III, ISSN 1221-5872, Cluj-Napoca, 2011.

Paper published in 2012

12. L. Scurtu, N. Plitea, N. Crişan, D. Pîslă: *Kinematics and Workspace of a New Surgical Robot with Five Degrees of Freedom*, pp.406-411 2012 IEEE International Conference on Automation, Quality and Testing, Robotics, THETA 18th edition 24th -27th May, Cluj-Napoca, Romania, IEEE Catalog Number: CFP12AQT-PRT, ISBN: 978-1-4673-0702-4.
13. L. Scurtu, M. Orban, N. Crişan: *Comparative Methods for Determining the Line of Intersection Between Two Planes*, Acta Technica Napocensis, Vol. 55, Issue II, ISSN 1221-5872, Cluj-Napoca, 2012.

Paper published in 2013

14. L. Scurtu, N. Crişan: *Application Programming Interface to generate helical compression springs*, Scientific Bulletin of the Polytechnic University of Timisoara, Romania, Transaction on Hydrotehnics, Tom 58(72), Fascicola suplimentara, 2013, ISSN 1224-6042, Ed. Politehnica, pp. 95-98.
15. D. Baldean, N. Crisan, L. Scurtu: *Experimental research of a common rail diesel injection system using advantages engineering methods*, Acta Tehnica Napocensis, ISSN 2284-743X, Volume 2, Issue 4 Special Edition, October - December 2013, pp. 43-46, Environmental Engineering and Sustainable Development Entrepreneurship, EESDE.

Paper published in 2014

16. L. Scurtu, I. Lupea: *Frontal Crash Simulation of a Chassis Frame*, Acta Tehnica Napocensis, Vol 57, No 3, pp. 411- 414 , ISSN 1221-5872, Cluj-Napoca, 2014.

Paper published in 2015

17. L. Scurtu, L. Banfalvi, R. Curta, A. Steopan: *Using Vibrations in Smart Furniture Design*, Acta Technica Napocensis-Series: Applied Mathematics, Mechanics, and Engineering, Vol.58, Issue 1, ISSN 1221-5872, Cluj-Napoca, 2015.
18. L. Scurtu, D. Băldean, D. Moldovanu: *Optimization Method Applied in Construction of an Oil Testing Bench Part – ICEGD*, Braşov, 11-13 iunie 2015.
19. Liviu-Iacob SCURTU, Ştefan BODI, Mihai DRAGOMIR: *OPTIMIZATION METHODS APPLIED IN CAD BASED FURNITURE DESIGN*, Acta Technica Napocensis-Series: Applied Mathematics, Mechanics, and Engineering, Vol.58, Issue IV, ISSN 1221-5872, Cluj-Napoca, 2015.

Paper published in 2016

20. Ancuta Nadia JURCO, Sanda Mariana BODEA, Iacob Liviu SCURTU, Cad design of the roof for a new farm structure with double functions. Acta Tehnica Napocensis Applied Mathematics, Mechanics, ISSN 1221 – 5872, Vol. 59, Nr. 4, 2016.

21 Iacob-Liviu **SCURTU**, Sanda Mariana BODEA, Ancuta Nadia JURCO, Design optimization method used in mechanical engineering. *JIDEG*, n. 11, p. 13-17, nov. 2016. ISSN 2344-4681. <http://sorging.ro/jideg/index.php/jid/article/view/304>

22 Ancuța Nadia JURCO, Eugen Claudiu JURCO, Iacob-Liviu **SCURTU**, Bianca URS, Monitoring studies of sewage treatment plant from the city of huedin through the prism of water quality parameters, *Lucrările celei de a XVI-a Conferințe Naționale multidisciplinare – cu participare internațională - "Profesorul Dorin Pavel - fondatorul hidroenergeticii românești"*, Sebeș, publicat în Știință și Inginerie, , Ed. AGIR, București, ISSN 2067-7138, 2016.

Paper published in 2017

23 Iacob-Liviu **SCURTU**, Sanda Mariana BODEA, Ancuta Nadia JURCO, Horea George CRISAN, Methods for the representation of the helicoidal surface, *JIDEG*, n. 12, p. 69-72, mai 2017, ISSN 2344-4681. <http://sorging.ro/jideg/index.php/jid/article/view/325>

24 Horea George **CRISAN**, Sanda Mariana BODEA, Ancuta Nadia JURCO, Iacob-Liviu SCURTU, Designing an effective intersection using cad environment. *JIDEG*, n. 12, p. 97-100, mai 2017, ISSN 2344-4681. <http://sorging.ro/jideg/index.php/jid/article/view/332>

25 Ancuta Nadia JURCO, Sanda Mariana BODEA, Horea George CRISAN, Iacob-Liviu **SCURTU**, Method to develop the double-curved surface of the roof, *JIDEG*, n. 12, p. 55-58, mai 2017. ISSN 2344-4681. <http://sorging.ro/jideg/index.php/jid/article/view/322>

26 Iacob-Liviu **SCURTU**, Alexandra-Daniela SCURTU, Ancuța Nadia JURCO, Horea-George CRISAN, Optimizarea topologică a structurilor în inginerie, 2017, Volumul 32, *Lucrările celei de a XVI-a Conferințe Naționale multidisciplinare – cu participare internațională - "Profesorul Dorin Pavel - fondatorul hidroenergeticii românești"*, Sebeș, publicat în *Știință și Inginerie*, Ed. AGIR, București, ISSN 2067-7138, 2017.

27. Horea-George CRISAN, Oana-Adriana CRISAN, Elena-Simina LAKATOS, Iacob-Liviu **SCURTU**, Aspecte privind efectele poluării autovehiculelor asupra mediului înconjurător - Studiu de caz, 2017, Volumul 32, *Lucrările celei de a XVI-a Conferințe Naționale multidisciplinare – cu participare internațională - "Profesorul Dorin Pavel - fondatorul hidroenergeticii românești"*, Sebeș, publicat în *Știință și Inginerie*, Ed. AGIR, București, ISSN 2067-7138, 2017.

Patent proposal

1. N. Plitea, D. Pîslă, C. Vaida, A. Vidrean, D. Lese, L. **Scurtu**: *Familie de roboti pentru poziționare cu orientare constantă a platformei (efectorului final)*, patent no. A/10021/2010.

2. N. Plitea, D. Pîslă, C. Vaida, D. Lese, B. Konya, R. Dadarlat, L. **Scurtu**, C. Sabou: *Familie de roboti paraleli cu șase grade de mobilitate*, patent no. A/10013/2011.

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