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Șef de lucrări

Instituția unde este titular: **Universitatea Tehnică din Cluj-Napoca**

Facultatea: **Facultatea de Inginerie Industrială, Robotica și Managementul Producției**

Departamentul: **Ingineria Sistemelor Mecanice**

L I S T A

lucrărilor științifice în domeniul disciplinelor din postul didactic

1. Teza de doctorat

“DEZVOLTAREA DE NOI ROBOȚI PARALELI PENTRU BIOPSIA PROSTATEI”, conducător științific: **Prof. dr. ing. Doina PÎSLĂ**, data susținerii publice a tezei: **18 Iulie 2018**

2. Cărți publicate

1. **P. Tucan**, C. Vaida, B. Gherman, D. Pisla, *Medical Robotics Vol 1: Innovative Medical Parallel Robots for Oncology*, Cluj-Napoca, Ed. Casa Cărții de Știință, ISBN 978-606-17-219-7, 2023.
2. B. Gherman C. Vaida, **P. Tucan** D. Pisla, *Medical Robotics Vol 2: Innovative Parallel Robots for Medical Rehabilitation*, Cluj-Napoca, Ed. Casa Cărții de Știință, ISBN 978-606-17-2192-4, 2023.

3. Capitole de carte

1. Pisla, Doina; Crisan, Nicolae; Ulinici, Ionut; Gherman, Bogdan; Radu, Corina; **Tucan, Paul**; Vaida, Calin; *Structural Study of a Robotic System for Sils Surgery*; International Workshop on Medical and Service Robots, 20-31, 2023, Springer Nature Switzerland Cham. https://doi.org/10.1007/978-3-031-32446-8_3
2. Pisla, Doina; Andras, Iulia; Pusca, Alexandru; Radu, Corina; Gherman, Bogdan; **Tucan, Paul**; Crisan, Nicolae; Vaida, Calin; Al Hajjar, Nadim; *Design and Functional Analysis of a New Parallel Modular Robotic System for Single Incision Laparoscopic Surgery*, International Workshop on Medical and Service Robots, 32-41, 2023, Springer Nature Switzerland Cham. https://doi.org/10.1007/978-3-031-32446-8_4
3. Gherman, Bogdan; Radu, Corina; Caprariu, Andrei; Al Hajjar, Nadim; Vaida, Calin; Ciocan, Andra; **Tucan, Paul**; Mois, Emil; Pisla, Doina; *On the Stiffness Modelling of the ProHep-LCT Robotic Needle Insertion Instrument*, International Conference on Robotics in Alpe-Adria Danube Region, 245-252, 2023, Springer Nature Switzerland Cham. https://doi.org/10.1007/978-3-031-32606-6_29
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6. Vaida, Calin; Sofan, Marius; **Tucan, Paul**; Giurgioiu, Octavian; Pisla, Adrian; Molnar, Tibor; Gherman, Bogdan; Carbone, Giuseppe; Pisla, Doina; *New Concept Design of a Modular Robotic System for Upper Limb Rehabilitation*, IFToMM World Congress on Mechanism and Machine Science, 216-225, 2023, Springer Nature Switzerland Cham. https://doi.org/10.1007/978-3-031-45770-8_22
7. Gherman, Bogdan; Ciocan, Andra; Caprariu, Andrei; **Tucan, Paul**; Radu, Corina; Vaida, Calin; Pisla, Adrian; Horsia, Alin; Al Hajjar, Nadim; Pisla, Doina; *On the Design Optimization of a Parallel Robotic System for Liver Cancer Treatment*, IFToMM World Congress on Mechanism and Machine Science, 518-528, 2023, Springer Nature Switzerland Cham. https://doi.org/10.1007/978-3-031-45770-8_52
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9. Gherman, Bogdan; **Tucan, Paul**; Vaida, Calin; Crisan, Nicolae; Rus, Gabriela; Birlescu, Iosif; Pisla, Doina; *On the Kinematics and Dimensional Optimization of a Robotic System for Single Incision Laparoscopic Surgery*, International Conference on Robotics in Alpe-Adria Danube Region, 383-391, 2022, Springer International Publishing Cham. https://doi.org/10.1007/978-3-031-04870-8_45
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15. Vaida, Calin; Ulinici, Ionut; Banica, Alexandru; Burz, Alin; Gherman, Bogdan; **Tucan, Paul**; Pisla, Adrian; Carbone, Giuseppe; Pisla, Doina; *First clinical evaluation of a spherical robotic system for shoulder rehabilitation*, New Trends in Medical and Service Robotics: MESROB 2020, 7, 62-70, 2021, Springer International Publishing. https://doi.org/10.1007/978-3-030-58104-6_8

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25. Nadas, Iuliu; Pisla, Doina; Ceccarelli, Marco; Vaida, Calin; Gherman, Bogdan; **Tucan, Paul**; Carbone, Giuseppe; *Design of dual-arm exoskeleton for mirrored upper limb rehabilitation*, New Trends in Medical and Service Robotics: Advances in Theory and Practice, 303-311, 2019, Springer International Publishing. https://doi.org/10.1007/978-3-030-00329-6_34
26. Vaida, Calin; Tucan, Paul; Plitea, Nicolae; Lazar, Viorela; Al Hajjar, Nadim; Pisla, Doina; *Kinematic analysis of a new parallel robotic system for minimally invasive therapy of non-resectable hepatic tumors*, IFToMM World Congress on Mechanism and Machine Science, 719-728, 2019, Springer International Publishing Cham. https://doi.org/10.1007/978-3-030-20131-9_72

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2. Pislă, Doina; Crisan, Nicolae; Gherman, Bogdan; Andras, Iulia; **Tucan, Paul**; Radu, Corina; Pusca, Alexandru; Vaida, Calin; Al Hajjar, Nadim; *Safety Issues in the Development of an Innovative Medical Parallel Robot Used in Renal Single-Incision Laparoscopic Surgery*, JOURNAL OF CLINICAL MEDICINE, 2023, 12(14), <https://doi.org/10.3390/jcm12144617>
3. Rus, Gabriela; Andras, Iulia; Vaida, Calin; Crisan, Nicolae; Gherman, Bogdan; Radu, Corina; **Tucan, Paul**; Iakab, Stefan; Hajjar, Nadim Al; Pislă, Doina; *Artificial Intelligence-Based Hazard Detection in Robotic-Assisted Single-Incision Oncologic Surgery*, CANCERS, 2023, 15(13), <https://doi.org/10.3390/cancers15133387>
4. Covaciu, Florin; Crisan, Nicolae; Vaida, Calin; Andras, Iulia; Pusca, Alexandru; Gherman, Bogdan; Radu, Corina; **Tucan, Paul**; Al Hajjar, Nadim; Pislă, Doina; *Integration of Virtual Reality in the Control System of an Innovative Medical Robot for Single-Incision Laparoscopic Surgery*, SENSORS, 2023, 23(12), <https://doi.org/10.3390/s23125400>
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6. Tucan, Paul; Vaida, Calin; Horvath, Daniel; Caprariu, Andrei; Burz, Alin; Gherman, Bogdan; Iakab, Stefan; Pisla, Doina; *Design and Experimental Setup of a Robotic Medical Instrument for Brachytherapy in Non-Resectable Liver Tumors*, *CANCERS*, 2022, 14(23), WOS:000897465800001, <https://doi.org/10.3390/cancers14235841>
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8. Tarnita, Daniela; Geonea, Ionut Daniel; Pisla, Doina; Carbone, Giuseppe; Gherman, Bogdan; Tohanean, Nicoleta; **Tucan, Paul**; Abrudan, Cristian; Tarnita, Danut Nicolae; *Analysis of Dynamic Behavior of ParReEx Robot Used in Upper Limb Rehabilitation*, *APPLIED SCIENCES-BASEL*, 2022, 12(15), <https://doi.org/10.3390/app12157907>
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16. **Tucan, Paul**; Vaida, Calin; Ulinici, Ionut; Banica, Alexandru; Burz, Alin; Pop, Nicoleta; Birlescu, Iosif; Gherman, Bogdan; Plitea, Nicolae; Antal, Tiberiu; Carbone, Giuseppe; Pisla,

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6. Brevete acordate

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Semnătura:

