



**TEMATICĂ PENTRU ADMITEREA LA STUDII
UNIVERSITARE DE DOCTORAT**

SDSI – Domeniul Inginerie Mecanică

Prof. univ. dr. FILIP Viviana

A. PROPUNERI:

1. Simularea și modelarea implanturilor dentare din materiale cu funcționalitate graduală (FGM - Functionally Graded Materials)
2. Biomecanică – Proteze și implanturi. Studii și contribuții

B. BIBLIOGRAFIE:

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SDSI – Domeniul Inginerie Mecanică
Prof. univ. dr. ILIE Cristinel Ioan**

B. PROPUNERI :

1. Acumulatori inerțiali cu dublu rol destinați stocării energiei și determinării atitudinii pentru sateliți.
2. Dispozitiv de iradiere laser cu micro scanner optic pentru aplicații medicale.

B.1. BIBLIOGRAFIE:



1. Rob Wagner, Ralph Jansen, *Flywheel Technology Development At The NASA Glenn Research Center, University of Toledo*, NASA Glenn Research Center, Brookpark, Ohio.
Email: rob.wagner@grc.nasa.gov
2. S.M. Mousavi G, Faramarz Faraji, Abbas Majazi, Kamal Al-Haddad, *A comprehensive review of Flywheel Energy Storage System technology*, Renewable and Sustainable Energy Reviews Volume 67, January 2017, Pages 477-490,
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3. L Arena, F Piergentili, F Santoni, *Design, manufacturing, and ground testing of a control-moment gyro for agile microsatellites*, - Journal of Aerospace Engineering, Volume 30, Issue 5, [https://doi.org/10.1061/\(ASCE\)AS.1943-5525.0000754](https://doi.org/10.1061/(ASCE)AS.1943-5525.0000754).
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B.2.

1. Eakkachai Pengwang, Kanty Rabenoroosa, Micky Rakotondrabe, Nicolas Andreff, *Scanning Micromirror Platform Based on MEMS Technology for Medical Application*, Micromachines **2016**, 7(2), 24; <https://doi.org/10.3390/mi7020024>
2. M Kaur, PM Lane, C Menon, *Endoscopic optical imaging technologies and devices for medical purposes: state of the art*, - Applied Sciences, 2020 - mdpi.com, Appl. Sci. **2020**, 10(19), 6865; <https://doi.org/10.3390/app10196865>
3. Ling Ma, Baowei Fei, *Comprehensive review of surgical microscopes: technology development and medical applications*, Journal of Biomedical Optics, Vol. 26, Issue 1, 010901 (January 2021). <https://doi.org/10.1117/1.JBO.26.1.010901>
4. Dragos OVEZEA, Romulus M. MIHAI, Cristinel ILIE, Adrian NEDELCU, Nicolae TANASE, Marius POPA, Mihai GUȚU “Experimental testing of a tremor compensation system with bimorph piezoceramic actuators using optical methods”. International Journal of Mechatronics and Applied Mechanics IJOMAM 2022, Issue 11, pp. 31-40, DOI: [dx.doi.org/10.17683/ijomam/issue11.4](https://doi.org/10.17683/ijomam/issue11.4)
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6. Dragos OVEZEA, Cristinel ILIE, Nicolae TANASE, Adrian NEDELCU, Marius POPA, Ionel CHIRITA, Mihai GUTU, “Piezoelectric Active Tremor Compensation System for LASER Microsurgery - Constructive Solution” The 12th International Symposium On Advanced Topics In Electrical Engineering (ATEE), March 25-27, 2021, Bucharest, Romania, DOI: 10.1109/ATEE52255.2021.9425130.

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SDSI – Domeniul Inginerie Mecanică

Prof. univ. dr. habil. PETRE Ivona Camelia

C. PROPUNERI:

1. Studii și contribuții privind optimizarea fluxului tehnologic în procesul de acoperire al barelor cu straturi protectoare obținute prin cromare
2. Studii și cercetări privind rezistența la uzură a sistemului de prindere și împingere a barelor acoperite cu straturi subțiri protectoare obținute prin cromare

B. BIBLIOGRAFIE:

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3. Maria Cristiana Enescu, Elena Valentina Stoian, Veronica Despa, Protecția Anticorosivă a Echipamentelor de Proces, Editura Valahia University Press, Târgoviște 2022
4. Whiteside, ACA de Vooy, E Sackett, HN McMurray - Influence of uniaxial deformation on surface morphology and corrosion performance of chromium-based coatings for packaging steel, Corrosion Science, 2021 - Elsevier
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10. Cristian Caizar – Utilizarea calculatorului în proiectarea constructivă. Solid Works. Universitatea Tehnică din Cluj-Napoca, 2000