

THE CENTER FOR RESEARCH IN ENGINEERING AND TECHNOLOGY MANAGEMENT

Contact details

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Areas of expertise

Applied research in industrial engineering: a) development of applications in manufacturing processes; b) development of applications in mechanical systems; c) development of applications in technology management;
Competitive and pre-competitive research: a) technological equipment; b) machinery and equipment manufacturing technology; c) special technological processes; d) optimization of the manufacturing technological system; e) monitoring technological systems and equipment; f) information technology integration into production systems (PDM, PLM etc.)
Product innovation and technological innovation in engineering and their impact on technology management
Research knowledge capitalization and dissemination

Team

Prof. Dr. habil.Eng. Nicolae Ungureanu, Prof. Dr. Eng. Vasile Năsui, Prof. Dr. Eng. Radu Iacob Coteţiu, Assoc.Prof.Dr.habil.Eng. Miorita Ungureanu, Prof. Dr. Eng. Adriana Coteţiu, Assoc. Prof. Dr. Eng. Mihai Bănică, Assoc. Prof. Dr. Eng. Lucian Butnar, Assist. Prof. Dr. Eng. Marius Cosma, Assist. Prof. Dr. Eng. Ec. Gabriela Lobonţiu, Assist. Prof. Dr. Eng. Sandor Ravai Nagy, Lecturer. Dr. Eng. Vlad Diciuc, Lecturer dr. Eng. Nicolae Medan

Representative projects

“**Product Development Research Activities - Technological production lines with CAD site**”, contract with industry, (2013-2014)
"Increasing the capacity of institutional management for the work of CD&I in engineering and technological management", ANCS
„Study and solutions regarding the hydraulic calculations made for the treatment plants of the Fierbinţi objective”, SC ADISS S.A. Baia Mare, (2012)
“Competitive research activities regarding the 2+3cm multifunctional truck product and the electrical installation command of the 5mc cesspool emptier”, (2011)
“Study the solutions to drive mechanical and hydraulically a sewage cleaning equipment on Renault chassis”, SC Grup4 SA., SC ADISS SA., (2012)

Significant results

The most representative publications of the past 5 years:

1. Ungureanu, Nicolae Stelian; Petrovan, Adrian; Ungureanu, Miorita, Contributions to the Development of an Ontology in Logistics of Manufacturing International Conference on Manufacturing Engineering and Materials (ICMEM) Location: Novy Smokovec, SLOVAKIA Date: JUN 18-22, 2018 Book Series: Lecture Notes in Mechanical Engineering Pages: 299-306 Published: 2019
2. Ruggiero, Alessandro; D'Amato, Roberto; Calvo, Roque; Ungureanu Nicolae et al., Measurements of the Friction Coefficient: Discussion on the Results in the Framework of the Time Series Analysis ADVANCES IN MANUFACTURING ENGINEERING AND MATERIALS, ICMEM 2018 Book Series: Lecture Notes in Mechanical Engineering Pages: 443-455 Published: 2019
3. Ruggiero, Alessandro; D'Amato, Roberto; Ungureanu, Nicolae, Fluid Film Pressure Description in Finite Turbulent

Lubricated Journal Bearings by Using the Warner's Theory ADVANCES IN MANUFACTURING ENGINEERING AND MATERIALS, ICMEM 2018 Book Series: Lecture Notes in Mechanical Engineering Pages: 465-475 Published: 2019

4. Nadolny, Krzysztof; Kaplonek, Wojciech; Krolczyk, Grzegorz; Ungureanu Nicolae et al., The effect of active surface morphology of grinding wheel with zone-diversified structure on the form of chips in traverse internal cylindrical grinding of 100Cr6 steel PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART B- JOURNAL OF ENGINEERING MANUFACTURE Volume: 232 Issue: 6 Pages: 965-978 Published: MAY 2018
5. Medan, Nicolae; Lobontiu, Mircea; Banica, Mihai, Full factorial DOE to determine the influence of the process parameters in cleaning water jets used in sewer cleaning, 4th International Conference on Computing and Solutions in Manufacturing Engineering (CoSME) Location: Brasov, ROMANIA Date: NOV 03-04, 2016 Book Series: MATEC Web of Conferences Volume: 94 Article Number: UNSP 07005 Published: 2017
6. V. Ilic, N. Jorgovanovic, A. Antic, S. Moraca, and N. Ungureanu, "A NOVEL FULLY FAST RECOVERY EMG AMPLIFIER FOR THE CONTROL OF NEURAL PROSTHESIS", *Tehnicky Vjesnik-Technical Gazette*, vol. 23, pp. 1131-1137, Jul-Aug 2016.
7. Basarman, Adrian-Paul; Lobontiu, Mircea, Aspects regarding the surface roughness on a steel part cutted using AWJ technology 13th International Conference on Modern Technologies in Manufacturing (MTeM-AMaTUC) Location: Cluj Napoca, ROMANIA Date: OCT 12-13, 2017 MODERN TECHNOLOGIES IN MANUFACTURING (MTEM 2017 - AMATUC) Book Series: MATEC Web of Conferences Volume: 137 Article Number: UNSP 01001 Published: 2017
8. A. Cotetiu, R. Cotetiu, N. Ungureanu, "Research about automatic adjustment solution of the advance force at the perfusion drills using fluid elements", in *Archives of Mining Sciences*, vol. 58, no. 4, 2014, pp 1201-1208
9. G. Lobontiu, "Planned Obsolescence and the Product Lifecycle", in *Applied Mechanics and Materials*, vol. 371, 2013, pp. 857-861
10. R. S. Nagy, M. Lobontiu, "Technological Solutions for Manufacturing Gears with Asymmetric Teeth" in *Academic Journal of Manufacturing Engineering*, vol.11, no. 3, 2013, pp. 68-73
11. V. Diciuc, "A Comparison between the Wear of the Ball Nose End Mill generated in 4 Axes Milling and in 5 Axes Milling" in *Applied Mechanics and Materials*, vol. 371, 2013, pp. 106-110

Products and technologies:

1. The water treatment plants;
2. Multifunctional truck product for sewage cleaning;
Technologies for manufacturing of the asymmetric tooth gear.

The offer addressed to the economic environment

Research & development	Development of products and equipment needed in the field of wastewater treatment; Product development in the field of wastewater disposal and transport: multifunctional trucks, cesspool emptiers; The study of cutting tools durability for real technological conditions; The study of the machined surfaces' quality depending on the process parameters and on the cutting conditions; Studies and research activities on the mechanical parameters of the components of the industrial systems; Studies and research activities in logistics, maintenance and reliability.
Consulting	Consulting in: manufacturing technologies, product development, Technology Management, human resources issue in Engineering, logistics, maintenance and reliability, Tribology.
Training	Training courses for NCMT operators, usage, programmers; Training in CAD.

Last update on May 2023