

"Aurel Vlaicu" University from Arad
Faculty of Engineering
Department of **A.I.I.T.T.**
Lecturer dr. eng. ec. **Laurentiu JITARU**

LIST
scientific works in the field of teaching subjects
period 01.01.2005 – 09.09.2024

A. Doctoral thesis

Theoretical and experimental research on processing technology by expansion of thin sheets

Author: Laurențiu Jitaru, Scientific Coordinator: Prof. Dr. Eng. Ion Sporea

- "Politehnica" University of Timișoara, Timișoara, 2006

B. Books and chapters in books

1⁰ Ioan Bele, Laurentiu Jitaru, Electric Locomotives and Trains. Ed. Mirton, Timisoara, 2004, I.S.B.N. 973-661-270-8, 125 pages.

2⁰ Jitaru Laurentiu, Calculations of the motor railway vehicle axle. Mirton Publishing House, Timisoara, 2007, I.S.B.N. 978-973-52-0276-7, 400 pages.

3⁰ Gheorghe Sima, Laurentiu Jitaru, Initialization in SolidWorks. Gutenberg Univers Publishing House, Arad, 2014, I.S.B.N. 978-606-675-038-7, 185 pages.

C. ISI/BDI indexed works

1⁰ The study of the physico-mechanical properties of fashion tights compared to medical tights

Authors: Prof. Dr. Eng. Monica Szabo, Dr. Eng. Mihaela Dochia,
Prof. Dr. Eng. Valentin Muller, Laurentiu Jitaru

- International Journal of Modern Manufacturing Technologies; Vol. XIV, No. 2 / 2022; pp. 258-263; <https://ijmmt.ro/international-journal-ijmmt.php?volume=vol14no22022>

2⁰ The study of the traction behavior of knitted structures with controlled dimensional stability

Authors: Associate Dr. Eng. Monica Szabo, Ass. Dr. Eng. Roxana Babanatis-Merce, Prof. Dr. Eng. ec. Ionel Barbu, Ace. Dr. Eng. Teoharis Babanatis, Laurentiu Jitaru

- Modern Technologies in Industrial Engineering VII (ModTech2019) 19–22 June 2019, Iasi, Romania, 2019, <https://iopscience.iop.org/issue/1757-899X/591/1>

3^o Study of dimensional changes during washing process for 1:1 interlock cotton yarns

Authors: Associate Dr. Eng. Monica Szabo, Ass. Dr. Eng. Roxana Babanatis-Merce, Prof. Dr. Eng. ec. Ionel Barbu, Ace. Dr. Eng. Teoharis Babanatis, Laurentiu Jitaru

- Modern Technologies in Industrial Engineering VII (ModTech2019) 19–22 June 2019, Iasi, Romania, 2019, <https://iopscience.iop.org/issue/1757-899X/591/1>

4^o Aspects of the dimensional changes of jersey structures after knitting process

Authors: Prof. Dr. Eng. Monica Szabo. Prof. Dr. Eng. ec. Ionel Barbu, Laurentiu Jitaru

- ModTech International Conference. Modern Technologies in Industrial Engineering, June 14-17, Sibiu, Romania, 2017, page 81

http://apps.webofknowledge.com/full_record.do?product=wos&search_mode=citationreport&qid=8&sid=e24z5isyebtko1ghnk&page=1&doc=2

5^o Bi-Level generalized Quasi-Convex Optimization in Ecological-Economic Efficiency

Authors: Prof. Dr. Gabriela Cristescu, Laurențiu Jitaru,
Prof. Dr. ec. Silviu-Gabriel Szentesi

- AMEE - 2009, Conference Proceedings – November 17 2009, , Volume 1184, I.S.B.N. 978-0-7354-0750-9, pp. 254-261 <http://proceedings.aip.org/proceedings/cpcr.jsp>

6^o The behavior of the 2:2 rib structures made of 100% cotton yarns, NM 40/1, after knitting process

Authors: Prof. Dr. Eng. Monica Szabo. Prof. dr. eng. Valentin Muller, Prof. dr. eng. ec. Ionel Barbu, Laurentiu Jitaru

- Annals of the university of Oradea - fascicle of textiles, leatherwork - 2017

HTTP://TEXTILE.WEBHOST.UORADEA.RO/ANNALS/AUO_FTL_VOL%20XVIII-NO.2-2017.PDF

D. Works published in journals and conference volumes with referees (not indexed)

- Magazines

- papers in conference volumes

1^o A bilevel choice method of ecological – economic modernization projects

Authors: Prof. Dr. Gabriela Cristescu, Laurențiu Jitaru

- ANNALS of the ORADEA UNIVERSITY. Fascicle of Management and Technological Engineering, Volume IX (XIX), 2010, NR 1, I.S.B.N. 1583-0691, pp. 492 – 498

2⁰ Decision making based on assessing the welfare gained

Authors: Prof. dr. Gabriela Cristescu, Laurențiu Jitaru, Luciana Neamțiu, Prof. dr. ec. Silviu Gabriel Szentesi

- JOURNAL OF ECONOMICS AND BUSINESS RESEARCH. Year XVI, No. 2/2010, Edited by "AUREL VLAICU" University Arad, 2010, I.S.S.N. 2068 - 3537, pp. 7 – 25

3⁰ Sagging and induced stress of the light-gauge sheet submitted to the expansion process

Authors: Laurențiu Jitaru, Prof. Dr. Gabriela Cristescu

- Scientific research and education in the air force, The International Session of XI-th Scientific Papers, 20 – 22 May 2009, Brașov, I.S.B.N. 978-973-8415-67-6, page 203-206

4⁰ The regulation of the power for the modernized electrical railway-engine BO-BO of 3400 KW

Authors: Prof. Dr. Gabriela Cristescu, Laurențiu Jitaru

- Scientific research and education in the air force, The International Session of XI-th Scientific Papers, 20 – 22 May 2009, Brașov, I.S.B.N. 978-973-8415-67-6, page 687-689

5⁰ Assessing the ecological-economic efficiency of an investment policy

Authors: Prof. Dr. Gabriela Cristescu, Prof. Dr. Eng. Liviu Sevastian Bocîi, Laurentiu Jitaru

- CREATIVE MATH. & INF. 17 (2008), No. 3, pp. 381-391

Dedicated to Professor Iulian Caroiian an dis 70th anniversary,

Online version at: <http://creative-mathematics.ubm.ro/>

Print Edition: ISSN 1584-286X, Online Edition: ISSN 1843-441X

6⁰ Projects to improve the working conditions of locomotive drivers

Authors: Laurențiu Jitaru, Prof. Dr. Gabriela Cristescu

- Research and Education in an innovation era, 2nd Edition, Arad, November 20-21, 2008, I.S.S.N. 2065 – 2569, pp. 184-189

7⁰ Determiration of the clearing angle of the expanding knife, according to the stress conditions of the deformed elements within the expanded metal sheet

Authors: Laurențiu Jitaru, Prof. Dr. Gabriela Cristescu, Prof. Dr. Eng. Ion Sporea

- The knowledge based organization. Applied mechanics, military technical systems and technologies, Sibiu, 22-25 November 2007, ISSN 1843-6722, page 74-79.

8⁰ Determination of the position angle of the expanding knife, according to the stress conditions of the deformed elements within the expanded metal sheet

Authors: Laurențiu Jitaru, Prof. Dr. Gabriela Cristescu,
Prof. Dr. Eng. Ion Sporea

- The knowledge based organization. Applied mechanics, military technical systems and technologies, Sibiu, 22-25 November 2007, ISSN 1843-6722, page 80-85

9⁰ Mathematical modeling of the force-displacement dependence for expanded metal threads

Authors: Laurențiu Jitaru, Prof. Dr. Gabriela Cristescu

- Annals of the Oradea University, Fascicle of Management and Technological Engineering, Volume VI (XVI), 2007. ISSN 1583-0691, page 365-372.

10⁰ Reduced Bezier surfaces in the behavior of the expanded metal threads

Authors: Prof. Dr. Gabriela Cristescu, Laurențiu Jitaru

- Annales of the Western University, Timisoara, Mathematics Series - Informatics XLV, 1 (2007), pp. 171-182, ISSN 1841-3293

11⁰ The Constructive Characteristics for the Knife Used in the Expansion Process of Iron Plates and the Shapes of the Holes in Expanded Iron Plates

Authors: Laurențiu Jitaru, Prof. Dr. Eng. Ion Sporea,
Prof. Dr. Eng. Ilare Bordeasu

- 12th INTERNATIONAL CONFERENCE on ICT TOOLS-2007 September 6-8. 2007, Miskolc, Hungary, pp. 130-134

12⁰ The influence of the quality of the expanded sheets on the shapes and sizes of the gaps or the area of the opening

Authors: Laurențiu Jitaru, Prof. Dr. Eng. Ion Sporea

- Proceedings of the national session of scientific communications "Terra Dacia - Romania of the Third Millennium", "Henri Coandă" Air Force Academy, Brașov, May 4 - 6, 2006, ISSN 1453-0139, CD Edition

13⁰ Considerations regarding some technological aspects that limit the process of expanding metal sheets

Authors: Laurențiu Jitaru, Prof. Dr. Eng. Ion Sporea

- Proceedings of the national session of scientific communications "Terra Dacia - Romania of the Third Millennium", "Henri Coandă" Air Force Academy, Brașov, May 4 - 6, 2006, ISSN 1453-0139, CD Edition

14⁰ Considerations regarding the influence of the dimensions of the expanded sheets and the constructive forms of different materials on the area of the opening

Authors: Prof. Dr. Eng. Ion Sporea, Laurențiu Jitaru,
Prof. Dr. Eng. Bordeiașu I., Eng. Sporea Iacob

- Proceedings of the national session of scientific communications "Terra Dacia - Romania of the Third Millennium", "Henri Coandă" Air Force Academy, Brașov, May 4 - 6, 2006, ISSN 1453-0139, CD Edition

15⁰ Matrix properties of an expanded metal plane structure

Authors: Prof. Dr. Gabriela Cristescu, Laurențiu Jitaru

- Annals of the Oradea University – Fascicle o management and technological engineering, Volume V (XV), Oradea, 2006, ISSN 1583 – 0691, page 356-362

16⁰ Analytical description of an expanded metal plane structure

Authors: Laurențiu Jitaru, Prof. Dr. Gabriela Cristescu

- Annals of the Oradea University – Fascicle o management and technological engineering, Volume V (XV), Oradea, 2006, ISSN 1583 – 0691, page 1073-1080

17⁰ Studies and experimental tests in sheet metal expansion processes

Authors: Laurențiu Jitaru, Prof. Dr. Eng. Ion Sporea

- Annals of the Oradea University – Fascicle o management and technological engineering, Volume V (XV), Oradea, 2006, ISSN 1583 – 0691, pag.1081-1090

18⁰ Aspects related to the process of bending sheets subjected to expansion

Authors: Laurențiu Jitaru, Prof. Dr. Eng. Ion Sporea

- Annals of the Oradea University – Fascicle o management and technological engineering, Volume V (XV), Oradea, 2006, ISSN 1583 – 0691, pag.1091-1097

19⁰ Main cavity dimensions and cavity areas on the surface of standard expanded sheets

Authors: Laurențiu Jitaru, Prof. Dr. Eng. Ion Sporea

- MINISTRY OF DEFENSE "NICOLAE BALCESCU" LAND FORCES ACADEMY - XITH International conference - Man in the knowledge based organization, Sibiu, 23 - 25 NOVEMBER 2006, CD Edition, pages 174 - 178

20⁰ Experiments concerning the elastic recovery of a part made of expanded sheet

Authors: Laurențiu Jitaru, Prof. Dr. Eng. Ion Sporea

- MINISTRY OF DEFENSE "NICOLAE BALCESCU" LAND FORCES ACADEMY - XITH International conference - Man in the knowledge based organization, Sibiu, 23 - 25 NOVEMBER 2006, CD Edition, page 179 - 185

21⁰ Centralized client authentication for HTTP servers

Authors: Prof. Dr. Gabriela Cristescu, Laurențiu Jitaru,

- 5th International Conference on Applied Mathematics, SEPTEMBER 21 - 24, 2006, Baia Mare

E. Patents obtained in the entire activity -

F. Research Contracts

I. Funded by CEEEX

1⁰ Trolleybus for the urban transport of passengers "SOLO with chopper" with energy recovery during braking and ensuring the transport conditions of persons with major disabilities according to CE directives 85/2001, to ensure compatibility with the European AMTRANS system, 2004 - 2006

- MEMBER

2⁰ Study, research and development of strength calculations with finite elements, according to an Algor program, for the AVA 200 passenger car body

- MEMBER

3⁰ Research on the development of high-performance monitoring and control systems of rolling stock to improve the maintenance and safety of railway transport (MASPROF) / INFOSOC, 2005 - 2008

- MEMBER

4⁰ Research on the diagnosis method of passenger cars in order to increase safety and security in railway transport (DIAGNOSIS)/AMTRANS, 2005 – 2008, Contract X1C13/2005

- MEMBER

5⁰ Research on the implementation of an eco-tight, vacuum system of toilets for passenger cars in railway transport (ECO-TOILET) / AMTRANS, 2005 – 2008, CEEEX Contract no. X1C14

- MEMBER

6⁰ The socio-economic and ecological impact of connecting Romania to the pan-European transport corridors (IMPACT) / CORINT, 2006

- MEMBER

7⁰ Trolleybus operated with three-phase inverter and asynchronous motor with lowered floor, according to EU norms (TATTMA-NE), 2007 - 2010

- MEMBER

8⁰ Advanced electric traction system with frequency inverters and alternating current motors for trolleybuses (INNOVATION), 2007-2010

- MEMBER

II. Contract with economic agents

1⁰ Research - Development Contract, contract no. 3394 of 12.11.2007, beneficiary company TAKATA based in Arad.

- CONTRACT DIRECTOR

III. POSDRU program

1⁰ Sectoral Operational Program Human Resources Development 2007-2013, "Invest in people!",

Project title: "Partnership designed for COUNSELING and PRACTICE of Students in order to increase their employability - CONPRACTIS" - Priority axis: 2 Correlation of lifelong learning with the labor market, Major field of intervention: 2.1 "Transition from school to active life", - Contract no. POSDRU/189/2.1/G/156607.

- MEMBER

G. CONFERENCE SUPPORT

10 Calculation of the energy dissipated during stop braking by high-speed railway vehicles via the disc brake, included in the "Dynamic Problems in High-Speed Trains" course from the doctoral program "Nuevas Tecnologías en Automoción", celebrated in Zaragoza on June 6, 2008 – The Department of Mechanical Engineering at the University of Zaragoza

H. Elaboration of courses, projects and laboratory works in electronic format

2009

- Course - Technical Drawing
- Course - Management
- Seminar notebook - Management
- Course - Mechanisms
- Course - The comfort of railway vehicles
- Course - Hydraulic transmission of locomotives
- Course - Construction and calculation of load-bearing structures of railway vehicles
- Course - Tribology
- Laboratory - Tribology
- Course - Train Traction and Braking
- Laboratory - Traction and Braking of Trains

2010

- Course - Management
- Seminar notebook - Management
- Laboratory - SolidWorks
- Course - Manufacturing technology
- Laboratory - Manufacturing technology
- Course - Hydraulic transmission of locomotives
- Course - Construction and calculation of load-bearing structures of railway vehicles
- Course - Manufacturing technology in railway transport

2011

- Course - Construction and calculation of load-bearing structures of railway vehicles
- Course - The comfort of railway vehicles
- Course - Hydraulic transmission of locomotives
- Course - Management
- Course - Manufacturing technology in railway transport
- Laboratory - CATIA
- Laboratory - SolidWorks
- Laboratory - Manufacturing technology

2012

- Course - Labor Protection
- Course - Business Economics
- Course - The comfort of railway vehicles
- Course - Manufacturing technology in railway transport
- Course - Machine Organs
- Laboratory - Machine Organs
- Project - Machine Organs

2013

- Course - Labor Protection
- Course - Machine Organs
- Laboratory - Machine Organs
- Project - Machine Organs
- Course - Machine Mechanisms and Organs
- Laboratory - Machine Mechanisms and Organs
- Laboratory - Technical Drawing and Infographics (SolidWorks)
- Laboratory - Technical Drawing and Infographics (CATIA)

2014

- Course - Machine Organs
- Laboratory - Machine Organs
- Project - Machine Organs
- Course - Machine Mechanisms and Organs
- Laboratory - Machine Mechanisms and Organs
- Course - Labor Protection
- Laboratory - Technical Drawing and Infographics (SolidWorks)
- Laboratory - Technical Drawing and Infographics (CATIA)

2015

- Course - Machine Organs
- Laboratory - Machine Organs
- Project - Machine Organs
- Course - Machine Mechanisms and Organs
- Laboratory - Machine Mechanisms and Organs
- Laboratory - Technical Drawing and Infographics (SolidWorks)
- Laboratory - Technical Drawing and Infographics (CATIA)

2016

- Course - Machine Organs
- Laboratory - Machine Organs
- Project - Machine Organs
- Course - Machine Mechanisms and Organs
- Laboratory - Machine Mechanisms and Organs

2017

- Course - Machine Organs
- Laboratory - Machine Organs
- Project - Machine Organs
- Course - Machine Mechanisms and Organs
- Laboratory - Machine Mechanisms and Organs

2018

- Course - Machine Organs
- Laboratory - Machine Organs
- Project - Machine Organs
- Course - Machine Mechanisms and Organs
- Laboratory - Machine Mechanisms and Organs

2019

- Course - Machine Organs
- Laboratory - Machine Organs
- Project - Machine Organs
- Course - Machine Mechanisms and Organs
- Laboratory - Machine Mechanisms and Organs

2020

- Course - Machine Organs
- Laboratory - Machine Organs
- Project - Machine Organs

2021

- Course - Machine Organs
- Laboratory - Machine Organs
- Project - Machine Organs

2022

- Course - Machine Organs
- Laboratory - Machine Organs
- Project - Machine Organs

2023

- Course - Machine Organs
- Laboratory - Machine Organs
- Project - Machine Organs
- Laboratory - Descriptive geometry

Data:

09-09-.2024

Semnătura:

Ș. L. dr. ing. ec. **Laurențiu JITARU**

