

**Author: Assoc. Prof. Eng. Cotoros Laura Diana, Ph.D.**

**Title: Technical-medical Approach of Biomechanical and Behavioral Factors in order to Improve Life Quality**

**Domain: Mechanical Engineering**

## **PUBLICATIONS LIST**

### **RELEVANT PAPERS**

---

**Cotoros D.**, Baritz M., *Some Considerations Concerning the Modelling of the Human Body Locomotor Rehabilitation System*, 23rd European Conference on Modelling and Simulation (ECMS), Rey Juan Carlos Univ, Madrid, Spain, Jun 09-12, 2009, pp. 359-364

**Cotoros D.**, Baritz M., *Human Gait Analysis for Hip Implanted Persons*, 23rd European Conference on Modelling and Simulation (ECMS), Rey Juan Carlos Univ, Madrid, Spain, Jun 09-12, 2009, pp. 365-370

**Cotoros, D.**, Baritz, M., Opran, C., et al., *Aspects Concerning Impact Tests on Composites for Rigid Implants*, World Congress on Engineering, Imperial Coll London, London, England, Jul 01-03, 2009, pp.1658-1661

**Cotoros D.**, Baritz M., Serban I., *Applied computer science to establish active correlation for improving the handling skills*, International Conference on Applied Computer Science, Elsevier, Malta, 2010, pp.504-507

**Cotoros D.**, Baritz M., *Biomechanical Analyzes of Human Body Stability and Equilibrium*, Proceedings of the World Congress on Engineering 2010 WCE 2010, June 30 - July 2, 2010, London, U.K, pp.1145-1149

**Cotoros, D.**, Stanciu, A., Baritz, M., *Experimental Research Concerning Mechanical Properties of Materials for Biomedical Use*, Proceedings of the World Congress on Engineering 2010 WCE 2010, June 30 - July 2, 2010, London, U.K, pp.1117-1120

**Cotoros D.**, *Analysis of Skeletal Prosthesis Component Elements at Structural Level*, Metalurgia International, Vol: 15, Special Issue: 7, pp.116-120, 2010

**Cotoros, D.**, Stanciu, A., Baritz, M., Cristea L., *Microscopic Analysis of Breakage in Materials for Hard Implants*, Lecture Notes in Engineering and Computer Science WCE 2011, July 2-6, 2011, London, U.K, ISBN 978-988-19251-5-2, ISSN 2078-0958, pp.1965-1968

**Cotoros D.**, Baritz M., Stanciu A., *Conceptual Analysis of Correspondence between Plantar Pressure and Corrective Insoles*, World Academy of Science, Engineering and Technology 59, 2011, pp.155-158

**Cotoros, D.**, Stanciu, A., Baritz, M., *Some Mechanical Characteristics of Materials for Dental Prosthetics*, Proceedings 26th European Conference on Modelling and Simulation ECMS, Koblenz, 2012, pp.212-215

---

## PhD THESIS

Title of thesis: „*Contributions to the Theory, Calculus and Construction of Directional Gyros from their Stability Point of View*”, date of public presentation: 14th of December, 1998, Transilvania University of Brasov, Scientific coordinator: Prof.dr.eng. Gheorghe Deliu, Doctoral Diploma (Ph.D.) in Mechanical Engineering since 1999

---

## PATENTS

Dry leakage test stand for vehicle radiators, no: 94822/25.02.88, authors: Popescu Ion, Cozma Dorel, Martinescu, Schnabel (**Cotoros Diana**), 1988

---

## BOOKS / BOOK CHAPTERS

Constantin F., **Cotoros D.**, „Mechanics: theory and applications”, ISBN:973-97794-4-1, Brasov, Lux Libris, 1996.

Candea I., Bobosila M., **Cotoros D.**, Popescu R., Comanescu I., „Mechanics-Kinematics”, Didactic and Pedagogic Publishing House, ISBN: 973-30-5263-9, Bucharest, 1998

Constantin F., **Cotoros D.**, et.al., Mechanics, collection of problems, Elida Publishers, ISBN:973-9205-00-4, Brasov, 2000

Candea I., **Cotoros D.**, et.al., Kinematics, collection of problems”, Lux Libris Publishers, ISBN:973-9458-00-9, Brasov, 2001

**Cotoros D.**, „Mechanics”, Lux Libris Publishers, ISBN 973-9428-65-7, Brasov, 2001

Candea I., Constantin F., Pirna I., **Cotoros D.**, Comanescu I., „Mechanics – Statics – theory and applications”, Transilvania Braşov Publishing House, ISBN:973 – 635 – 054 – 1, Brasov, 2002

**Cotoros D.**, Scutaru L., „Introduction in Rigid Bodies Dynamics”, Lux Libris Publishers, ISBN:973 – 9458 – 26 – 2, Brasov, 2004

**Cotoros D.**, „Mechanics for students”, Lux Libris Publishers, Braşov, ISBN:973 – 9458 – 29 – 7, 2005

Radu C., Rosca I., **Cotoros D.**, „The Design of an Adapted Osteosynthesis Implant for Fibula’ Fracture”, **Chapter** International Conference on Advancements of Medicine and Health Care through Technology, Volume 26 of the series IFMBE Proceedings, Springer Verlag, 2009, pp 299-302 [http://link.springer.com/chapter/10.1007/978-3-642-04292-8\\_66](http://link.springer.com/chapter/10.1007/978-3-642-04292-8_66)

Baritz, M., **Cotoros, D.**, „Advanced Technologies in Biomechanics Investigations for the Analysis of Human Behaviour in Working Activities”, ISBN 978-953-307-141-1, Scyio, Rijeka,

Croatia, 2010 <http://www.intechopen.com/books/advanced-knowledge-application-in-practice/advanced-technologies-in-biomechanics-investigations-for-the-analysis-of-human-behaviour-in-working->

Baritz, M., **Cotoros, D.**, „Education of Arms' Users in Dealing with Technological Activities”, **Chapter** International Conference on Advancements of Medicine and Health Care through Technology, Volume 36 of the series IFMBE Proceedings, Springer Verlag, 2011, pp 114-119 [http://link.springer.com/chapter/10.1007/978-3-642-22586-4\\_24](http://link.springer.com/chapter/10.1007/978-3-642-22586-4_24)

Baritz, M., **Cotoros, D.**, „Digital Microscopy Used in Synthetic Structures Analysis of Dental Prosthesis”, **Chapter** International Conference on Advancements of Medicine and Health Care through Technology, Volume 36 of the series IFMBE Proceedings, Springer Verlag, 2011, pp.230-233 [http://link.springer.com/chapter/10.1007/978-3-642-22586-4\\_49](http://link.springer.com/chapter/10.1007/978-3-642-22586-4_49)

Serban, I., Baritz, M., Rosca, I. C., **Cotoros D.**, „Statistical Analysis of Anthropometric and Physiologic Performance of the Hand”, **Chapter** International Conference on Advancements of Medicine and Health Care through Technology, Volume 36 of the series IFMBE Proceedings, Springer Verlag, 2011, pp.380-383 [http://link.springer.com/chapter/10.1007/978-3-642-22586-4\\_80](http://link.springer.com/chapter/10.1007/978-3-642-22586-4_80)

Baritz, M., **Cotoros, D.**, „Human Gait Analysis for Hip Implanted Persons before and after Implant Procedure”, **Chapter** 5th European Conference of the International Federation for Medical and Biological Engineering, Volume 37 of the series IFMBE Proceedings, Springer Verlag, 2012, pp 880-883 [http://link.springer.com/chapter/10.1007/978-3-642-23508-5\\_229](http://link.springer.com/chapter/10.1007/978-3-642-23508-5_229)

Baritz, M., **Cotoros, D.**, „Anthropometrical Studies for Human Hand Rehabilitation Procedures”, **Chapter** 5th European Conference of the International Federation for Medical and Biological Engineering, Volume 37 of the series IFMBE Proceedings, Springer Verlag, 2012, pp 884-887 [http://link.springer.com/chapter/10.1007/978-3-642-23508-5\\_230](http://link.springer.com/chapter/10.1007/978-3-642-23508-5_230)

**Cotoros, D.**, Baritz, M., „Combined-Correlated Methods Applied to the Analysis of Dental Prostheses Materials Quality”, New Technologies Trends Innovation and Research, INTECH Open Access Publisher, 2012, pp.209-241. [https://www.worldcat.org/title/combined-correlated-methods-applied-to-the-analysis-of-dental-prostheses-materials-quality/oclc/884219924&referer=brief\\_results](https://www.worldcat.org/title/combined-correlated-methods-applied-to-the-analysis-of-dental-prostheses-materials-quality/oclc/884219924&referer=brief_results)

Repanovici A., **Cotoros D.**, Landoy A., “A Research Based Framework for Developing Information Literacy Projects”, **Chapter** Worldwide Commonalities and Challenges in Information Literacy Research and Practice, Volume 397 of the series Communications in Computer and Information Science, Springer Verlag, 2013, pp 345-351 [http://link.springer.com/chapter/10.1007/978-3-319-03919-0\\_45](http://link.springer.com/chapter/10.1007/978-3-319-03919-0_45)

Baritz, M., **Cotoros, D.**, Barbu D., „Criteria Analysis for Optimal Choice of Efficient Energy Use in Residential Buildings”, **Chapter** Sustainable Energy in the Built Environment - Steps Towards nZEB, Part of the series Springer Proceedings in Energy, Springer Verlag., 2014, pp 39-45, ISBN: 978-3-319-09706-0 [http://link.springer.com/chapter/10.1007/978-3-319-09707-7\\_3](http://link.springer.com/chapter/10.1007/978-3-319-09707-7_3)

Baritz, M., **Cotoros, D.**, Barbu D., „Use of Thermo-Vision for Early Detection of Heat Losses, Inside and Outside Buildings with Mixed Heating”, **Chapter** Sustainable Energy in the Built Environment - Steps Towards nZEB, Part of the series Springer Proceedings in Energy, Springer Verlag, 2014, pp 31-37, ISBN: 978-3-319-09706-0

[http://link.springer.com/chapter/10.1007/978-3-319-09707-7\\_2](http://link.springer.com/chapter/10.1007/978-3-319-09707-7_2)

---

## JOURNAL ARTICLES

---

### ISI INDEXED ARTICLES

Opran, C., Baritz, M., **Cotoros, D.**, *The effects of some liquids of general use upon the shape and structure of the monthly worn contact lenses used for visual comfort*, OPTOELECTRONICS AND ADVANCED MATERIALS-RAPID COMMUNICATIONS, Vol.4, Issue: 7, pp. 1052-1059, Jul. 2010 [oam-rc.inoe.ro/download.php?idu=1161](http://oam-rc.inoe.ro/download.php?idu=1161)

**Cotoros D.**, *Analysis of Skeletal Prosthesis Component Elements at Structural Level*, METALURGIA INTERNATIONAL, Vol. 15, Special Issue: 7, pp.116-120, 2010 <http://connection.ebscohost.com/c/articles/51706078/analysis-skeletal-prosthesis-component-elements-structural-level>

Stanciu, A., **Cotoros, D.**, Baritz, M., *Researches upon composite materials for prosthetic and orthotic devices*, OPTOELECTRONICS AND ADVANCED MATERIALS- RAPID COMMUNICATIONS Vol. 6 Issue: 1-2, pp. 335-338, Jan-Feb 2012 [oam-rc.inoe.ro/download.php?idu=1831](http://oam-rc.inoe.ro/download.php?idu=1831)

Braun B., Baritz M., **Cotoros D.**, *Research on Correlation between any Plantar Diseases and Stability*, Applied Mechanics and Materials, Vol. 186, pp. 254-259, Jun. 2012 [www.scientific.net/AMM.186.254](http://www.scientific.net/AMM.186.254)

Baritz M., **Cotoros D. L.**, Braun B. C., *Eye Tracking Used to Evaluate the Human Behavior*, Applied Mechanics and Materials, Vol. 186, pp. 260-265, Jun. 2012 [www.scientific.net/AMM.186.260](http://www.scientific.net/AMM.186.260)

Baritz M., **Cotoros D.**, Cristea L., Braun B., *Analysis of Stability Asymmetries and of Gait Cycle Used to Determine the Recovery Degree for Subjects with Traumatic Locomotion Disorder*, Applied Mechanics and Materials, Vol. 332, pp. 534-539, Jul. 2013 [www.scientific.net/AMM.332.534](http://www.scientific.net/AMM.332.534)

Baritz M., **Cotoros D.**, *Oscillatory Movements Analysis at Knee Level*, Applied Mechanics and Materials, Vol. 436, pp. 271-276, Oct. 2013 [www.scientific.net/AMM.436.271](http://www.scientific.net/AMM.436.271)

Stanciu, A.E., **Cotoros, D.L.**, Cristea, L., Baritz, M., *Determination of stress and strains of a composite tank used for liquid medical products*, Journal of optoelectronics and advanced materials / v.17 no.7/8, 2015년, pp.1146-1151, ISSN 1454-4164

**DATABASE INDEXED ARTICLES**

Baritz, M., Cristea, L., **Cotoros, D.**, Danaila, C., Rogozea, L., *Eyeball Retinal Image and Oculo-Motor Equilibrium Analyze by Human Body Stability Recordings*, Mecatronica, 2007, Issue 1, pp.22-26 <http://connection.ebscohost.com/c/articles/34142432/eyeball-retinal-image-oculo-motor-equilibrium-analyze-by-human-body-stability-recordings>

**Cotoros D.**, Bacanu Gh., Baritz M., *Advanced Methodology of Heat Losses Assessment in Buildings*, International Journal of Arts & Sciences 4.19, pp. 307-314, ISSN 1944-6934 [http://www.internationaljournal.org/images/Austria\\_Program\\_2011.pdf](http://www.internationaljournal.org/images/Austria_Program_2011.pdf)

Baritz, M., **Cotoros, D.**, *Reactive Postural Response in Bipodal Balance Analysis*, Applied Mechanics and Materials, Elsevier, 2013, pp. 842-847 <http://www.scientific.net/AMM.325-326.842>

Baritz M., **Cotoros D.**, *Evaluation of postural stability associated to lifting/lowering motions*, Applied Mechanics and Materials, Vol. Modeling and Optimization of the Aerospace, Robotics, Mechatronics, Machines-Tools, Mechanical Engineering and Human Motricity Fields, OPTIROB 2014, 26 June 2014 - 29 June 2014, Elsevier, pp. 646-651 <http://www.scientific.net/AMM.555.646>

Baritz M., **Cotoros D.**, Balcu I., *Evaluation of Comfort Degree for Pushing/Pulling Motions under the Influence of Controlled Induced Vibrations in the FingersHand-Arm Assembly*, Applied Mechanics and Materials 658, 2014, pp.413-416 <http://www.scientific.net/AMM.658.413>

Baritz M., **Cotoros D.**, Barbu D., *Analysis and Simulation of Gait Types with Blocked Joints*, Applied Mechanics and Materials 658, 2014, pp.407-412 <http://www.scientific.net/AMM.658.407>

Baritz M., **Cotoros D.**, *Development of correlative investigation technique (CIT) of human performances in specific conditions of postural malfunctions*, Advanced Materials Research, Elsevier, 2014, pp.531-534 <http://www.scientific.net/AMR.748.531>

Baritz, M., **Cotoros, D.**, Muntean, R., Ciobanu, I., *Forces distribution analysis developed in the plantar surface in simulation case of controlled blocking of joints*, Applied Mechanics and Materials, Volume 656, 2014, Elsevier, pp. 642-649 <http://www.scientific.net/AMM.656.642>

Baritz M., **Cotoros D.**, Dumitrescu L., *Microscopic Analyze of Insoles Composite Structures Behavior under Water Immersion, Temperature Variation and Saline*, Applied Mechanics and Materials, Vol. 760, pp. 287-292, May. 2015 <http://www.scientific.net/AMM.760.287>

Baritz M., Balcu I., **Cotoros D.**, Stanciu A., *The Automotive Vibrations Effect on the Comfort Degree Determined at the Level of Foot-Shoe Composite Structure*, Applied Mechanics and Materials, Vol. 760, pp. 305-310, May. 2015 <http://www.scientific.net/AMM.760.305>

**Cotoros D.**, Stanciu A., Baritz M., Cristea L., *Experimental Approaches Regarding the Elastic Properties Bending of Roving*, Applied Mechanics and Materials, Vol. 760, pp. 335-340, May. 2015 <http://www.scientific.net/AMM.760.335>

**Cotoros D.**, Stanciu A., Baritz M., Cristea L., *Microscopic Analysis Following Bending of Roving Type Composite Material*, Applied Mechanics and Materials, Vol. 760, pp. 341-346, May. 2015 <http://www.scientific.net/AMM.760.341>

**Cotoros D.**, Baritz M., Stanciu A., *Influence of Carpal Tunnel Syndrome Induced by Vibratory Actions upon Fingers Mobility*, Applied Mechanics and Materials, Vol. 801, pp. 284-289, Oct. 2015, <http://www.scientific.net/AMM.801.284> <http://www.ttp.net/978-3-03835-628-8/5.html>

**Cotoros D.**, Baritz M., Stanciu A., *Effect of Auditory Stimuli on the Human Body Biomechanical Stability during Gait Cycle*, Applied Mechanics and Materials, Vol. 801, pp. 278-283, Oct. 2015, <http://www.scientific.net/AMM.801.278> <http://www.ttp.net/978-3-03835-628-8/5.html>

Barbu D., **Cotoros D.**, *Assessment of the Occupational Effects of Vibrations on the Human Body*, Applied Mechanics and Materials, Vol. 801, pp. 290-294, Oct. 2015, <http://www.scientific.net/AMM.801.290> <http://www.ttp.net/978-3-03835-628-8/5.html>

**Cotoros D.**, Repanovici A., Baritz M., Stanciu A., *Modeling and simulation of gait by anybody software before and after hip arthroplasty*, E-Health and Bioengineering Conference (EHB), Iasi, 2015, ISBN 978-1-4673-7544-3, <http://ieeexplore.ieee.org.am.enformation.ro/xpl/articleDetails.jsp?arnumber=7391372&newsearch=true&queryText=Cotoros>

Baritz M., Mosoi A., **Cotoros D.**, *High heel shoes effect analysis on comfort and bipodal balance by evaluating thermal gradient at the plantar surface level*, E-Health and Bioengineering Conference (EHB), Iasi, 2015, ISBN 978-1-4673-7544-3, <http://ieeexplore.ieee.org.am.enformation.ro/xpl/articleDetails.jsp?arnumber=7391460&newsearch=true&queryText=Cotoros>

**Cotoros D.**, Repanovici A., Baritz M., Stanciu A., *Correlative assessment of patient's progress subjected to a hip implant procedure. Case study*, E-Health and Bioengineering Conference (EHB), Iasi, 2015, ISBN 978-1-4673-7544-3, <http://ieeexplore.ieee.org.am.enformation.ro/xpl/articleDetails.jsp?arnumber=7391381&newsearch=true&queryText=Cotoros>

Baritz M., Mosoi A., **Cotoros D.**, *Human body biomechanics under incidence of induced positive/negative emotions*, E-Health and Bioengineering Conference (EHB), Iasi, 2015, ISBN 978-1-4673-7544-3, <http://ieeexplore.ieee.org.am.enformation.ro/xpl/articleDetails.jsp?arnumber=7391462&newsearch=true&queryText=Cotoros>

---

**PAPERS IN INTERNATIONAL CONFERENCES**

---

**ISI INDEXED PAPERS IN INTERNATIONAL CONFERENCES**

**Cotoros, D.**, Baritz, M., *Study on the gyroscope stability subjected to impulse and step by step perturbations*, 3rd WSEAS International Conference on Applied and Theoretical Mechanics, Puerto de la Cruz, Spain, Dec 14-16, 2007, pp.280-283

Teodorescu, H., Vlase, S., **Cotoros, D.**, et al., *Modelling of tensile behaviour of sheet. moulding compounds*, World Congress on Engineering 2007, London, England, Jul 02-04, 2007, pp. 1407-1410

Baritz, M., **Cotoros, D.**, Moraru, O., *Virtual and augmented reality for mechanism motion modeling in technical applications*, 7th WSEAS International Conference on Signal Processing, Computational Geometry and Artificial Vision, Vouliagmeni, Greece, Aug 24-26, 2007, pp. 50-53

Baritz, M., **Cotoros, D.**, Moraru, O., *Virtual and augmented reality used to simulate the mechanical device*, 18th International Symposium of the Danube-Adria-Association-for-Automationand-Manufacturing, Zadar, Croatia, Oct 24-27, 2007, pp.61-62

Baritz, M., **Cotoros, D.**, *Human gait analyzed by complex and interconnected system*, 7th WSEAS International Conference on Applied Computer Science (AOS 07), Venice, Italy, Nov 21-23, 2007, pp.306-309

**Cotoros, D.**, Baritz, M., Cristea, L., et al., *New technologies for automobiles heat exchangers*, 6th International Conference of DAAAM Baltic Industrial Engineering, DAAAM Int Vienna, Tallinn, Estonia, Apr 24-26, 2008, pp.49-52

Enescu, I, Lepadatescu, B., Enescu, D., **Cotoros D.**, *Numerical methods for determination of the elastic stress and deformations in rollings bearings*, 6th International Conference of DAAAM Baltic Industrial Engineering, DAAAM Int Vienna, Tallinn, Estonia, Apr 24-26, 2008, pp. 59-63

**Cotoros, D.**, Baritz, M., Enescu I., et al., *Simulation of a random perturbation upon the gyroscopic stability*, Applied Computing Conference 2008, Istanbul, Turkey, May 27-30, 2008, pp. 316-319

**Cotoros, D.**, Baritz, M., Opran, C., *Dry testing method for heat exchangers*, World Congress on Engineering 2008, Imperial Coll London, London, England, Jul 02-04, 2008, pp. 1521-1524

Cristea, L., Baritz, M., **Cotoros, D.**, et al., *Aspects Of Quality Assurance In Medical Devices Production*, 8th WSEAS International Conference on Signal Processing, Computational Geometry and Artificial Vision, Rhodes, Greece, Aug 20-22, 2008, pp. 131-135

Baritz, M., Cristea, L., **Cotoros, D.**, et al., *Thermal human body behavior analyze during cycling movements*, 6th IASME/WSEAS International Conference on Heat Transfer, Thermal Engineering and Environment, Rhodes, Greece, Aug 20-22, 2008, pp. 338-341

Baritz, M., Cristea, L., Rogozea, L., **Cotoros D.**, *Complex Systems for Human Body Biomechanical Behavior Modeling*, International Conference on Bio-Inspired Computational Methods Used for Difficult Problems Solving - Development of Intelligent and Complex Systems, Petru Maior Univ, Tg Mures Romania & Romanian Acad, Bucharest, Romania, Nov 05-07, 2008, pp. 209-216

Baritz, M., Cristea, L., Rogozea, L., **Cotoros D.**, *Analysis of Human Body Bipedal Stability for Neuromotor Disabilities*, International Conference on Bio-Inspired Computational Methods Used for Difficult Problems Solving - Development of Intelligent and Complex Systems, Petru Maior Univ, Tg Mures Romania & Romanian Acad, Bucharest, Romania, Nov 05-07, 2008, pp.217-224

Cristea, L., Baritz, M., Rogozea, L., **Cotoros D.**, *Researches Concerning the Data Processing used in Feeding and Dosing Systems Optimization*, 8th WSEAS International Conference on Artificial Intelligence, Knowledge Engineering and Data Bases, Cambridge, England, Feb 21-23, 2009, pp. 518-522

Baritz, M., Cristea, L., **Cotoros, D.**, et al. *Statistical screening for the analysis of adult and elderly people optometry visual behaviour*, 8th WSEAS International Conference on Artificial Intelligence, Knowledge Engineering and Data Bases, Cambridge, England, Feb 21-23, 2009, pp.527-530

Repanovici, A., Cristea, L., **Cotoros, D.**, *Infodocumentary automatization systems: RFID technology*, 9th WSEAS International Conference on Signal Processing, Robotics and Automation (ISPRA'10), Univ Cambridge, Cambridge, England, Feb 20-22, 2009, pp.248-253

Stanciu, A., **Cotoros, D.**, Baritz, M., *Analysis by Strain Gauges of the Strains in a Composite Material*, 9th WSEAS International Conference on Signal Processing, Robotics and Automation (ISPRA'10), Univ Cambridge, Cambridge, England, Feb 20-22, 2009, pp.254-257

Baritz, M., Cristea, L., **Cotoros, D.**, *Retinal image and oculo-motor equilibrium analyze using recordings of human body stability-posture*, 9th WSEAS International Conference on Signal Processing, Robotics and Automation (ISPRA'10), Univ Cambridge, Cambridge, England, Feb 20-22, 2009, pp.258-263

Baritz, M., Cristea, L., **Cotoros, D.**, *Measuring of human body stability - part of bio - behavioral studies*, 8th WSEAS International Conference on Instrumentation, Measurement, Circuits and Systems, China Jiliang Univ, Hangzhou, China, May 20-22, 2009, pp.124-127

Baritz, M., **Cotoros, D.**, Cristea, L., et al. *Analyses of noise effects on standing human body stability*, 9th WSEAS International Conference on Signal, Speech and Image Processing/9th WSEAS International Conference on Multimedia, Internet and Video Technologies, Budapest, Hungary, Sep 03-05, 2009, pp. 168-173

**Cotoros D.**, Baritz M., *Some Considerations Concerning the Modelling of the Human Body Locomotor Rehabilitation System*, 23rd European Conference on Modelling and Simulation (ECMS), Rey Juan Carlos Univ, Madrid, Spain, Jun 09-12, 2009, pp. 359-364



**Cotoros D.**, Baritz M., *Human Gait Analysis for Hip Implanted Persons*, 23rd European Conference on Modelling and Simulation (ECMS), Rey Juan Carlos Univ, Madrid, Spain, Jun 09-12, 2009, pp. 365-370

**Cotoros, D.**, Baritz, M., Opran, C., et al., *Aspects Concerning Impact Tests on Composites for Rigid Implants*, World Congress on Engineering, Imperial Coll London, London, England, Jul 01-03, 2009, pp.1658-1661

**Cotoros, D.**, Baritz, M., Opran, C., et al., *Testing Stand for Antifriction Bearings with Applications in Biomechanics*, World Congress on Engineering, Imperial Coll London, London, England, Jul 01-03, 2009, pp. 1763-1765

Baritz, M., **Cotoros, D.**, Cristea, L., et al. *Advanced Methodology for Evaluation of Human Behavior in Technological Working Activities*, 6th International Conference on the Management of Technological Changes, Alexandroupolis, Greece, Sep 03-05, 2009, pp.449-452

Cristea, L., Baritz, M., Manescu, M., **Cotoros D.**, *Mechatronic Conception of Feeding and Dosing Systems Used in Automat Inspection Systems*, 20th International Danube-Adria-Association-for-Automation-and-Manufacturing Symposium, Vienna, Austria, Nov 25-28, 2009, vol.20, pp.61-62

Manescu, M., Cristea, L., **Cotoros, D.**, et al. *Infrared Data Transmission for Mechatronic System Control*, 20th International Danube-Adria-Association-for-Automation-and-Manufacturing Symposium, Vienna, Austria, Nov 25-28, 2009, vol.20, pp. 859-860

Baritz, M., Cristea, L., **Cotoros, D.**, et al. *Human Body Posture Evaluation in Working Activities*, 20th International Danube-Adria-Association-for-Automation-and-Manufacturing Symposium, Vienna, Austria, Nov 25-28, 2009, vol.20, pp. 865-866

Baritz, M., Cristea, L., **Cotoros, D.**, et al. *Human Body Behavior by Thermovision Analyses in Standing and Gait Processes*, 20th International Danube-Adria-Association-for-Automation-and-Manufacturing Symposium, Vienna, Austria, Nov 25-28, 2009, vol.20, pp. 867-868

Stanciu, A., **Cotoros, D.**, *Study Concerning the Mechanical Tests of MAT&ROVING Fiber Reinforced Laminated Composites*, 5th WSEAS International Conference on Applied and Theoretical Mechanics, Puerto de la Cruz, Spain, Dec 14-16, 2009, pp.154-157

Baritz, M., **Cotoros, D.**, Repanovici, A. et al., *Cognitive Virtual Learning Used for Improving the Long Term Handling Skills*, 6th WSEAS/IASME International Conference on Educational Technologies (EDUTE 10), Kantaoui, Tunisia, May 03-06, 2010, pp.107-110

Baritz, M., **Cotoros, D.**, *Computing Technics for Studying Human Behavior in Ergonomic Working Places*, 14th International Conference on Modern Technologies, Quality and Innovation (ModTech 2010), Slanic-Moldova, May 20-22, 2010, pp. 95-98

Baritz, M., **Cotoros, D.**, *Analyses by Image Processing of Surface Quality of Mobile Skeletal Dental Prosthesis*, 14th International Conference on Modern Technologies, Quality and Innovation (ModTech 2010), Slanic-Moldova, May 20-22, 2010, pp.99-102

Baritz, M., Braun, B., **Cotoros, D.**, *Digital Microscope Images Processing Used to Measure Bearings Surface Characteristics*, 14th International Conference on Modern Technologies, Quality and Innovation (ModTech 2010), Slanic-Moldova, May 20-22, 2010, pp.103-106

Baritz, M., **Cotoros, D.**, *E-Portofolio Platform in Developing the Interdisciplinary Abilities*, 7th International Scientific Conference eLearning and Software for Education, Bucharest, Apr 28-29, 2011, Anywhere, Anytime - Education on Demand, Vol II Book Series: eLearning and Software for Education, pp. 249-252, 2011

Baritz, M., **Cotoros, D.**, *Modeling Visual Training for Young People Vision Eyecare*, 7th International Scientific Conference eLearning and Software for Education, Bucharest, Apr 28-29, 2011, Anywhere, Anytime - Education on Demand, Vol II, Book Series: eLearning and Software for Education, pp.253-256, 2011

Baritz, M., **Cotoros, D.**, Balcu, I., *Tools for Correlative Techniques Development Between Postural and Sensorial Components in Behavioral Analysis*, 7th International Conference on Management of Technological Changes, Alexandroupolis, Sep. 01-03, 2011, pp. 461-464

Baritz, M., **Cotoros, D.** *Analysis of plantar pressures developed during gait for hollow foot and flat foot shapes with bio-behavioral implications*, 3rd International Conference on E-Health and Bioengineering (EHB), IEEE, Iasi, Nov 24-26, 2011

Baritz, M., **Cotoros, D.**, *Modeling and simulation of human locomotion system structure and behavior by dedicated software –LifeMode*, 3rd International Conference on E-Health and Bioengineering (EHB), IEEE, Iasi, Nov 24-26, 2011

Braun B., Serban I., **Cotoros D.**, *The Plantar Orthosis Modeling and Simulating Assisted by Computer*, 3rd International Conference on E-Health and Bioengineering (EHB), IEEE, Iasi, Nov 24-26, 2011

**Cotoros, D.**, Stanciu, A., Baritz, M., *Some Mechanical Characteristics of Materials for Dental Prosthetics*, Proceedings 26th European Conference on Modelling and Simulation ECMS, Koblenz, 2012, pp.212-215

Baritz M., **Cotoros D.**, *Playful Methods for Evaluation, Correction and Rehabilitation of Visual Function*, 9th International Conference eLearning and Software for Education, Bucharest, vol.2, pp.127-132, 2013

Baritz M., **Cotoros D.**, *Simulation and Modeling Methods Used in Optometric Field for Assessing Visual Functions Behavior*, 9th International Conference eLearning and Software for Education, Bucharest, vol.2, pp.543-548, 2013

Baritz M., **Cotoros D.**, Singer C., *Study of pupil reflex under chromatic light radiation incidence*, 4th IEEE International Conference on E-Health and Bioengineering (EHB), Iasi, nov.2013

Baritz M., Singer C., **Cotoros D.**, *Thermographic Analysis of Hand Structure when Subjected to Controlled Effort*, 4th IEEE International Conference on E-Health and Bioengineering (EHB), Iasi, nov.2013

Singer, C., Dumitra, G., Baritz, M., **Cotoros D.**, et.al., *The integration of a medical team through an online medical platform for the supervision of bronchial asthma*, 4th IEEE International Conference on E-Health and Bioengineering (EHB), Iasi, nov.2013

#### **DATABASE INDEXED PAPERS IN INTERNATIONAL CONFERENCES**

Baritz M., **Cotoros D.**, Cristea L., Rogozea L., *Assessment of Human Bio-Behavior During Gait Process Using Lifemod Software*, BRAIN. Broad Research in Artificial Intelligence and Neuroscience 1, 2010, pp.169-177

**Cotoros D.**, Baritz M., Serban I., *Applied computer science to establish active correlation for improving the handling skills*, International Conference on Applied Computer Science, Elsevier, Malta, 2010, pp.504-507

**Cotoros D.**, Stanciu A., Baritz M., *Composite materials properties approached by finite element method*, International Conference on Applied Computer Science, Elsevier, Malta, 2010, pp.269-272

**Cotoros D.**, Baritz M., *Biomechanical Analyzes of Human Body Stability and Equilibrium*, Proceedings of the World Congress on Engineering 2010 WCE 2010, June 30 - July 2, 2010, London, U.K, pp.1145-1149

**Cotoros, D.**, Stanciu, A., Baritz, M., *Experimental Research Concerning Mechanical Properties of Materials for Biomedical Use*, Proceedings of the World Congress on Engineering 2010 WCE 2010, June 30 - July 2, 2010, London, U.K, pp.1117-1120

**Cotoros, D.**, Stanciu, A., Baritz, M., Cristea L., *Microscopic Analysis of Breakage in Materials for Hard Implants*, Lecture Notes in Engineering and Computer Science WCE 2011, July 2-6, 2011, London, U.K, ISBN 978-988-19251-5-2, ISSN 2078-0958, pp.1965-1968

**Cotoros, D.**, Stanciu, A., Baritz, M., Duta V., *Analysis of Bending Specific Deformation in Composite Materials Using Comparative Methods*, Lecture Notes in Engineering and Computer Science WCE 2011, July 2-6, 2011, London, U.K, ISBN 978-988-19251-5-2, ISSN 2078-0958, pp.2048-2051

**Cotoros D.**, Baritz M., Bacanu Gh., *Correlative Analysis of Energy Efficiency in Urban Buildings*, Recent Researches in Urban Sustainability and Green Development, USCUDAR, Praga, 2011, pp.111-114

Baritz, M., **Cotoros, D.**, *Learning and Assessment Strategies for Visual Rehabilitation*, eLearning & Software for Education, EBSCO 2014, Issue 3, pp.37-42

Baritz, M., **Cotoros, D.**, *Action Active IT Environments for Education E-Learning Platforms*, eLearning & Software for Education, EBSCO 2014, Issue 1, pp.41-44

#### **PAPERS IN INTERNATIONAL CONFERENCES WITH ISBN or ISSN**

Pricop G., Deliu G., **Cotoros D.**, *Using the Computer in Remote Data Processing Concerning the Measured Mechanical Variables by Help of Gyroscopic Devices*, ICATE 2000, Proceedings on the ICATE, Craiova, 2000, ISBN 973-657-005-3

Pricop G., Deliu G., **Cotoros D.**, *The Remote Transmission of the Mechanical Variables Measured Using Gyroscopic Devices*, ICATE 2000, Proceedings on the ICATE, Craiova, 2000, ISBN 973-657-005-3.

**Cotoros D.**, Nicoara D., *The Consequences of a Perturbance with Variable Amplitude and Frequency upon the Gyroscopic Response*, Proceedings of the 11<sup>th</sup> International DAAAM Symposium, University of Rijeka, Opatija, Croatia, 2000, ISBN 3-901509-13-5.

Nicoara D., **Cotoros D.**, Munteanu M., *External Optimization of the Rotor-Bearing Systems*, Proceedings of the 11<sup>th</sup> International DAAAM Symposium, University of Rijeka, Opatija, Croatia, 2000, ISBN 3-901509-13-5

**Cotoros D.**, *Heat Exchangers for Compact High Powered Engines*, EE&AE, Rousse, Bulgaria, 2004.

**Cotoros L.D.**, Enescu I., *Virtual Study of the Dynamically Tuned Gyroscope, Subjected to Different Perturbations*, 4<sup>th</sup> International Conference Research and Development in Mechanical Industry, RaDMI 2004, Zlatibor, Serbia – Montenegro, sept. 2004, ISBN 86 – 83803 – 18 – X.

Enescu I., **Cotoros L.D.**, Tarnoveanu C., *Photoelasticity Method to Analysis the Contact for Structures of Rolling Bearings Elements*, 4<sup>th</sup> International Conference Research and Development in Mechanical Industry, RaDMI 2004, Zlatibor, Serbia – Montenegro, sept. 2004, ISBN 86 – 83803 – 18 – X.

**Cotoros D.L.**, Scutaru L.M., *Optimizing Program for a Gyroscopic Device Sensitivity*, 8<sup>th</sup> International Research/Expert Conference, TMT 2004, Neum, Bosnia – Herzegovina, sept.2004.

Scutaru M.L., Constantin FL., **Cotoros D.**, *The Critical Frequencies of Sensor by Pneumatic Spring*, 8<sup>th</sup> International Research/Expert Conference, TMT 2004, Neum, Bosnia – Herzegovina, sept.2004.

Vlase S., Mihalcica V., Modrea A., **Cotoros D.**, *On the Reactions Eliminating in the Virtual Dynamic Analysis of the Mechanisms*, 1<sup>st</sup> International Conference “Advanced Concepts in Mechanical Engineering”, Universitatea Tehnica Gh. Asachi, Iasi, iulie 2004, ISSN 1011 – 2855.

**Cotoros D.**, *Optimisation of an Aircraft Circular Uniform Turn Radius, using MathCAD*, The 1st International Conference on Computing and Solutions in Manufacturing Engineering, CoSME 2004, Brasov, sept.2004, ISBN 973-635-372-9.

**Cotoros D.**, *Optimisation of an Aircraft Transversal Load Factor during a Circular Uniform Turn*, The 1st International Conference on Computing and Solutions in Manufacturing Engineering, CoSME 2004, Brasov, sept.2004, ISBN 973-635-372-9.

**Cotoros D.**, Enescu I., *Modern Manufacturing Technology for Heat Exchangers*, 1st International Conference "Mechanics and Machine Elements", Sofia, Bulgaria, 2004.

**Cotoros D.**, Enescu I., *Connecting Sleeve for a Heat Exchanger Dry Test Station*, 1st International Conference "Mechanics and Machine Elements", Sofia, Bulgaria, 2004.

Enescu I., **Cotoros D.**, *The research for determination the functional reserve of bearings*, 1st International Conference "Mechanics and Machine Elements", Sofia, Bulgaria, 2004.

Enescu I., **Cotoros D.**, *The researches for determinate the capacity to axial load for radial ball bearings*, 1st International Conference "Mechanics and Machine Elements", Sofia, Bulgaria 2004.

Ulea M., Vlase S., Tofan M., Modrea A., **Cotoros D.**, *The Use of the Structural Symmetries in the Vibrations Analysis of the Mechanical Systems*, 1st International Conference "Mechanics and Machine Elements", Sofia, Bulgaria 2004.

**Cotoros L.D.**, Enescu I., *Determination of the Maximum Slope during the Ascendant Flight, Using Mathcad Program*, International Scientific Conference TMCR, Chişinău, 19 – 21 May 2005, vol.4, pag. 277 – 281, ISBN 9975 – 9875 – 3 – 2.

**Cotoros L.D.**, *Determination of the Maximum Rate of Climb to the Flight Ceiling, Using Mathcad Program*, International Scientific Conference TMCR, Chişinău, 19 – 21 May, 2005, vol. 4, pag. 273 – 277, ISBN 9975 – 9875 – 3 – 2.

Enescu I., **Cotoros D.**, *The Analyse of Bearings Deformations by the Examinations with X*, International Scientific Conference TMCR, Chişinău, 19 – 21 May 2005, vol 3., pag. 299 – 302, ISBN 9975 – 9875 – 6 – 7.

**Cotoros D.**, Vlase S., *Mathcad Simulation of the Gyroscopic Effect upon the Missiles Trajectory*, Proceedings of the 36<sup>th</sup> International Scientific Symposium of Metra, vol.I, pag.250 – 255, Bucureşti, 26 – 27 May 2005, ISBN 973 – 0 – 03923 - 2.

Vlase S., **Cotoros D.**, *The Use of the Structural Symmetries in the Vibration Analysis of the Transmission*, Proceedings of the 36<sup>th</sup> International Scientific Symposium of Metra, vol.I, pag.256 – 261, Bucureşti, 26 – 27 May 2005, ISBN 973 – 0 – 03923 – 2

Cândea I., **Cotoros D.**, Andrei I., *Kinematic Analysis of Soil Processing “Dyna – Drive” Type Device*, EE&AE International Scientific Conference, Rousse, Bulgaria, 2006.

Teodorescu H., Vlase S., **Cotoros D.**, and Rosu D., *Computing Models to Estimate the Behaviour at Temperature and Humidity Variations of Some Fiber-Reinforced Composite Structures*, 2<sup>nd</sup> International Conference “From Scientific Computing to Computational Engineering”, 2<sup>nd</sup> IC SCCE Athens, 5-8 July 2006.

Teodorescu H., Vlase S., **Cotoros D.**, and Rosu D., *An Original Computing Model Regarding the Longitudinal Tensile Behaviour of Multiphase Composite Materials*, 2<sup>nd</sup> International Conference "From Scientific Computing to Computational Engineering", 2<sup>nd</sup> IC SCCE Athens, 5-8 July 2006.

**Cotoros D.**, Nicoara D., Baritz M., Stanciu A., *Upon the Solutions Trajectories of an Euler Type Gyroscope*, WSEAS, Portoroz, Slovenia, mai 2007, ISSN 1790-5095, ISBN 978-960-8457-70-6 (80-83)

Baritz M., Cristea L., **Cotoros D.**, Repanovici A., *Analyze of postural stability in stepping action for person wearing composite progressive lens*, Advanced Composite Materials Engineering and Advanced in Human Body protection to vibrations, COMAT 2008, ISSN 1844-9336, under FISITA patronage, Brasov, Oct.2008, p. 398

Baritz M., Cristea L., **Cotoros D.**, Balcu I., *Human Body stability behavior in vibrating environment*, Advanced Composite Materials Engineering and Advanced in Human Body protection to vibrations, COMAT 2008, ISSN 1844-9336, under FISITA patronage, Brasov, Oct.2008, p. 535

**Cotoros D.**, Baritz M., Ulea M., *Influence of Pollution upon Climate Change and Human Factor*, International Workshop "On the zero emission power generation", Sliven Oct.2008, pp.3-10

**Cotoros D.**, Dumitrescu L., Ulea M., *Aspects concerning non conventional energy usage in Romania and Transilvania University of Brasov*, International Workshop "On the zero emission power generation", Sliven Oct.2008, pp.10-16

Rogozea L, Cristea L., Moisil I., Baritz M., **Cotoros D.**, Miclăus R., *Remarks on Ethical Issues in BioEngineering*, Challenges in Higher Education and research in the 21st Century - June 4-7, 2008, Sozopol, Bulgaria

Baritz M., Cristea L., **Cotoros D.**, Rogozea L., *The stability and the movement for an eye vision correction with progressive lens*, Polytechnical Institute of Iasi Bulletin, published by Technical University Gh. Asachi Iasi, Machine Construction Technology, ISSN 1011-2855

Baritz M., Cristea L., **Cotoros D.**, Balcu I., *Interconnections between optometry and biomechanics for ergonomics studies*, Polytechnical Institute of Iasi Bulletin, published by Technical University Gh. Asachi Iasi, Machine Construction Technology, ISSN 1011-2855

Baritz M., Cristea L., **Cotoros D.**, Balcu I., Repanovici A., *Noise and deformation analyze during wheel and belt contact*, Supplement Romanian Review Precision Mechanics Optics and Mecatronics, ISSN 1584-5982, Sept. 2008 p. 197

Baritz M., Cristea L., **Cotoros D.**, Balcu I., *Human body temperature monitoring system to analyze the comfort during manufacturing process*, Supplement Romanian Review Precision Mechanics Optics and Mecatronics, ISSN 1584-5982, Sept. 2008 p.203

Bacanu Gh., **Cotoros D.**, Dumitrescu L., Baritz M., Ulea M., *Implementation of European Standards and Practices*, Proceedings of the International Workshop “Effect of Energy Use on Environment and Ecosystem”, Brasov, Romania, February 11-13, 2009, Publisher: Transilvania University of Brasov

Bacanu Gh., **Cotoros D.**, Dumitrescu L., Baritz M., Ulea M., *An Energy Policy for Europe*, Proceedings of the International Workshop “Effect of Energy Use on Environment and Ecosystem”, Brasov, Romania, February 11-13, 2009, Publisher: Transilvania University of Brasov

Dumitrescu L., Bacanu Gh., **Cotoros D.**, Baritz M., Ulea M., *Biomass as biofuels biodiesel*, Proceedings of the International Workshop “Effect of Energy Use on Environment and Ecosystem”, Brasov, Romania, February 11-13, 2009, Publisher: Transilvania University of Brasov

Ulea M., Tofan M., Cotoros D., *Internal combustion engines MathCAD programs steps for energy saving*, Proceedings of the International Workshop “Effect of Energy Use on Environment and Ecosystem”, Brasov, Romania, February 11-13, 2009, Publisher: Transilvania University of Brasov

Bacanu Gh., **Cotoros D.**, Baritz M., Dumitrescu L., Ulea M., *Clean energy from renewable energy sources*, Proceedings of the International Workshop “C&SEE International Solid Waste Management Symposium”, Vienna, Austria, March 11-13 2009, Vienna University of Technology

**Cotoros D.**, Baritz M., Bacanu Gh., Dumitrescu L., Ulea M., *Solid particles influence upon human body behavior-reason for a better management of wastes*, Proceedings of the International Workshop “C&SEE International Solid Waste Management Symposium”, Vienna, Austria, March 11-13 2009, Vienna University of Technology

Dumitrescu L., **Cotoros D.**, Baritz M., Bacanu Gh., Ulea M., *Waste recycling by composting - a way of saving energy*, Proceedings of the International Workshop “C&SEE International Solid Waste Management Symposium”, Vienna, Austria, March 11-13 2009, Vienna University of Technology

**Cotoros D.**, Baritz M., Bacanu Gh., *Environmental Influence of Agriculture upon the Human Factor*, Energy Efficiency and Agricultural Engineering, Rousse, Bulgaria, 2009, ISSN 1311-9974

Bacanu Gh., **Cotoros D.**, Baritz M., *Heat Pipe Heat Exchangers - New Installations for Energy Saving*, Energy Efficiency and Agricultural Engineering, Rousse, Bulgaria, 2009, ISSN 1311-9974

Baritz M., **Cotoros D.**, *Computer analysis of the noise and deformations in the belt-wheel contact area*, Acoustics and vibration of mechanical structures AVMS-2009, Timisoara 28-29 May 2009, pp.127-132

**Cotoros D.**, Baritz M., *Aspects concerning the human body stability in acoustical perturbations conditions*, Acoustics and vibration of mechanical structures AVMS-2009, Timosara28-29 May 2009

Baritz M., **Cotoros D.**, Cristea L., *Biomechanical Analysis of Human Locomotion During Changing the Gait Level*, Proceedings of the 7th EUROMECH Solid Mechanics Conference, Lisbon, Portugal. Sept. 7-11, ESMC2009

**Cotoros D.**, Baritz M., *Experimental Studies of Composites Friction properties designed for Biomechanical Use*, Proceedings of the 7th EUROMECH Solid Mechanics Conference, Lisbon, Portugal. Sept. 7-11, ESMC2009

Baritz M., Cristea L., **Cotoros D.**, Rogozea L., *Structural Analyses of Morpho-Functional Elements for Establishing the Bio-Behavior Human Performances*, International Conference on Computational mechanics and virtual engineering, ISBN 978-973-598-572-1, Brasov, 2009

Baritz M., **Cotoros D.**, Climov V., Cristea L., *Visual System Optical Analyses and Its Correction by Progressive Lenses*, International Conference on Computational mechanics and virtual engineering, ISBN 978-973-598-572-1, Brasov, 2009

Teodorescu H., **Cotoros D.**, Rosu D., *The Behaviour at Temperature and Humidity Variations of Fiber-reinforced Composite Structures*, Transilvania University Press of Braşov, ISBN 973 - 635 - 593 - 4, COMEC 2005

Teodorescu H., Vlase S., **Cotoros D.**, *Experimental Method to Determine Residual Internal Stresses in Tubular Composite Structures*, Transilvania University Press of Braşov, ISBN 973 - 635 - 593 - 4, COMEC 2005

Teodorescu H., **Cotoros D.**, Rosu D., *Most Encountered Failure Criteria of Fiber Reinforced Composite Laminates*, Transilvania University Press of Braşov, ISBN 973 - 635 - 593 - 4, 2005

Nicoara D., **Cotoros D.**, *Equivalent Linearization of Nonlinear Systems by Optimization Method*, Transilvania University Press of Braşov, ISBN 973 - 635 - 593 - 4, 2005

Nicoara D., **Cotoros D.**, *Vibration Control Using Semi-Active Tuned Mass Dampers (Part II-Parametric Optimization)*, Transilvania University Press of Braşov, ISBN 973 - 635 - 593 - 4, 2005

**Cotoros D.**, Nicoara D., *Model of a Dynamically Tuned Gyroscope*, Transilvania University Press of Braşov, ISBN 973 - 635 - 593 - 4, 2005

**Cotoros D.**, Nicoara D., *Model for a Gyroscope with Inner Rotors Connected at  $120^\circ$* , Transilvania University Press of Braşov, ISBN 973 - 635 - 593 - 4, 2005

Teodorescu H., Vlase S., **Cotoros D.**, Rosu D., *Damping Analysis of an Advanced Sandwich Composite Structure*, WSEAS Transactions on Applied and Theoretical Mechanics, 1, no. 2, 2006, pp. 147-152



Baritz M., Rosca I., Cristea L., **Cotoros D.**, Vlase S., *Simulation of the human walking for biomedical rehabilitation process*, Transilvania University Press of Braşov, 2006

Baritz M., **Cotoros D.**, *Human Behavior Modeling in Interaction with Environment*, Transilvania University Press of Braşov, ISBN 978-973-598-117- 4, 2007

**Cotoros D.**, Baritz M., Albu A., Cristea L., *Modeling the human gait and standing stability by LifeMode software*, The 3rd International Conference on International Conference "Computational Mechanics and Virtual Engineering "COMEC, 2009

Baritz M., Braun B., **Cotoros D.**, *Surfaces Characteristics Analyses of Bearings Component Parts by Data and Images Processing*, International Journal of Modern Manufacturing Technologies (IJMMT) Vol. II, No. 2, December 2010, ISSN 2067-3604, pp.15-22  
[http://modtech.ro/international-journal/vol2no22010/Mihaela\\_Baritz.pdf](http://modtech.ro/international-journal/vol2no22010/Mihaela_Baritz.pdf)

**Cotoros D.**, Baritz M., Neica L., Dima L., Sechel G., *Analysis and quantification of human subject stability behaviour under visual and motor perturbations*, 12th WSEAS International Conference on Mathematical and Computational Methods in Science and Engineering (MACMESE '10) University of Algarve, Faro, Portugal November 3-5, 2010 (ISSN: 1792-6114, ISBN: 978-960-474-243-1)

Baritz M., **Cotoros D.**, Cristea L., *Analysis of dental implants behaviour in mobilizing prosthesis*, 12th WSEAS International Conference on Mathematical and Computational Methods in Science and Engineering (MACMESE '10) University of Algarve, Faro, Portugal November 3-5, 2010 (ISSN: 1792-6114, ISBN: 978-960-474-243-1)

Baritz M., **Cotoros D.**, Rogozea L., *Education and Visual Training for Children and Young People Vision Eyecare*, 9th WSEAS International Conference on Education and Educational Technology (EDU '10) Iwate Prefectural University, Japan, October 4-6, 2010, ISSN 1792-5061, ISBN 978-960-474-232-5, pp.274-277

Baritz, M., **Cotoros, D.**, Balcu I., *Development of a Posture-sensorial Modeling and Analysis 3D Structure for the Human Bio-system Involved in Motilitate Activities*, 2nd International Conference on Innovations, Recent Trends and Challenges in Mechatronics, Mechanical Engineering and New High-Tech Products Development, Bucharest, Romania, 23 - 24 Sept. 2010

Stanciu A., **Cotoros D.**, Purcarea R., Teodorescu-Draghicescu H., *Studies Upon the Mechanical Properties of Roving and Mat-Roving Composites Subjected to Traction*, 3rd International Conference Advanced Composite Materials Engineering COMAT 2010, 27- 29 Oct 2010, Brasov, Romania pp.283-287, ISSN 1844-9336

Stanciu A., Purcarea R., Curtu I., **Cotoros D.**, *Analysis of Mechanical Properties of Roving and Mat-Roving Composites Subjected to Bending*, 3rd International Conference Advanced Composite Materials Engineering COMAT 2010, 27- 29 Oct 2010, Brasov, Romania, ISSN 1844-9336

Stanciu A., **Cotoros D.**, Purcarea R., Teodorescu-Draghicescu H., *Studies upon the Mechanical Properties of Roving and Mat-Roving Composites Subjected to Traction*, 3rd International Conference Advanced Composite Materials Engineering COMAT 2010, 27- 29 Oct 2010, Brasov, Romania, ISSN 1844-9336

Baritz M., **Cotoros D.**, Balcu I., Todor V., *Pedestrian Biomechanical Behavior under Visual and Audio Stimuli*, International Congress on Automotive and Transport Engineering, Brasov, Romania, Oct 27-29, CONAT 2010, under FISITA and EAEC, ISSN 2069-0401

Baritz M., **Cotoros D.**, *Active/Passive Answers Developed in Human Subject Hands During Automotive Driving*, International Congress on Automotive and Transport Engineering, Brasov, Romania, Oct 27-29, CONAT 2010, under FISITA and EAEC, ISSN 2069-0401

Baritz M., **Cotoros D.**, *Image Processing Used To Analyze Composite Ophthalmic Lenses Behaviour*, 3rd International Conference Advanced Composite Materials Engineering, COMAT 2010, 27- 29 Oct 2010, Brasov, Romania, ISSN 1844-9336

Baritz M., **Cotoros D.**, Balcu I., *Analyses of Composite Dental Prosthesis by Digital Microscopy and Material Testing*, 3rd International Conference Advanced Composite Materials Engineering, COMAT 2010, 27- 29 Oct 2010, Brasov, Romania, ISSN 1844-9336

Baritz M., Opran C., **Cotoros D.**, *Use of Image Processing from Digital Microscope for the Analysis of the Special Bearings Component Elements Surfaces*, International Conference CNC Technologies 2010, May 5-7 2010, Bucharest, Romania, Politechnica Press, ISSN 2068-2093

**Cotoros D.**, Baritz M., Opran C., *Effects of Photo-polymerization Substances upon the Dental Materials Surfaces*, International Conference CNC Technologies, May 2011, Bucharest, Romania, pp.82-88

**Cotoros D.**, Opran C., Baritz M., *Polycarbonate Progressive Lenses Used to Analyze Visual Function Behavior by Modelling Process*, International Conference CNC Technologies, May 2011, Bucharest, Romania, pp.94-98

Baritz M., **Cotoros D.**, *Correlative analysis of the influence on human behavior and working comfort due to repetitive technological processes*, International Journal of Modern Manufacturing Technologies, ISSN 2067-3604, Vol. IV, No. 1 / 2012, pp. 15-20  
[http://modtech.ro/international-journal/vol4no12012/02\\_Baritz\\_Mihaela.pdf](http://modtech.ro/international-journal/vol4no12012/02_Baritz_Mihaela.pdf)

**Cotoros D.**, Baritz M., *Implementing Rapid Prototyping Technologies for Corrective Insoles*, International Journal of Modern Manufacturing Technologies, vol.IV, no.4/2012, ISSN 2067-3604, pp.41-46 [http://modtech.ro/international-journal/vol4no12012/06\\_Cotoros\\_Diana.pdf](http://modtech.ro/international-journal/vol4no12012/06_Cotoros_Diana.pdf)

Baritz M., **Cotoros D.**, *Conceptual Analysis of Ratio Between the Plantar Pressure and Insole Shape During Different Types of Gait*, 14th Romanian Textiles and Leather Conference – CORTEP 2012 Sinaia, 6 - 8 Sept. 2012, ISSN-L2285-5378, pp.557-563

Baritz M., **Cotoros D.**, *The Influence of Plantar Surface Shape and Height Upon the Support Basis and Bipodal Stability*, 14th Romanian Textiles and Leather Conference – CORTEP 2012 Sinaia, 6 - 8 Sept. 2012, ISSN-L2285-5378, pp.564-568

Braun, B., Baritz, M., **Cotoros, D.**, *Ambient music influence on stability evolution in orthostatic posture*, Proceedings of 13rd WSEAS International Conference on Accoustic and Music: Theory and Applications, AMTA '12, Iasi, June, 13-15, 2012, ISSN: 2227-4588, ISBN: 978-1-61804-096-1

Buzea L., Baritz M., Pradais R., **Cotoros D.**, *Analysis of Cellphone Radiations Effects Upon Facial Skin and Human Posture*, IC-ANMBES (Analytical and Nanoanalytical Methods for Biomedical and Environmental Sciences) 2012 – May 24-27, 2012, ISBN978-606-19-0072-5

Buzea L., Baritz M., Pradais R., **Cotoros D.**, Braun B., *Microscopic Analysis of Edible Substances Influence Upon the Structural Changes Developed in the Dental Prosthesis Elements*, IC-ANMBES (Analytical and Nanoanalytical Methods for Biomedical and Environmental Sciences) 2012 – May 24-27, 2012, ISBN978-606-19-0072-5

Golinschi A., Baritz M. , **Cotoros D.**, Barbu D., *Evaluation by digital microscopy of insoles anizotropic structures subjected to mechanical deformations*, CORTEP 2014, Iasi, ISSN 2285-5378

Golinschi A., Baritz M. , **Cotoros D.**, Barbu D., *Correlative analysis methodology for plantar pressure versus footwear type during gait cycle*, CORTEP 2014, Iasi, ISSN 2285-5378

Baritz M., **Cotoros D.**, Singer C., *Ergometric Analysis by Correlative Methods of the Thermal Radiation*, 2nd International Conference on Radiation and Dosimetry in Various Fields of Research, Nis, Serbia, 2014, ISBN 978-86-6125-100-9

Baritz M., **Cotoros D.**, Singer C., Ungureanu L., *Analysis of Visual Parameters Variance Under the Incidence of Radiation Produced by Computer Monitors and Medical Devices upon the Operators Working in Specialized Surgeries*, 2nd International Conference on Radiation and Dosimetry in Various Fields of Research, Nis, Serbia, 2014, ISBN 978-86-6125-100-9

Baritz M., Dumitrescu L., **Cotoros D.**, *Analysis of Thermo-Hydrophilic Behaviour of Insoles Materials*, IC-ANMBES, 2014

Baritz M., **Cotoros D.**, *Study of Post-Reaction Phenomena of Pupil Motility for Chromatic Variations of Light Radiation*, IC-ANMBES, 2014

---

#### **OTHER PAPERS / RELEVANT ACHIEVEMENTS**

---

**Cotoros L.D.**, *The Influence of Some Constructive Factors upon Thermal Performances of the Water Heat Exchangers for Explosion Engines*, International Conference of Automobile Students and Young Engineers, Bucharest, 1992.

Olariu V., Ciobanu L., **Cotoros D.**, *The Influence of the Blade's Form upon the Moment of Rotation Transmitted to the Fluid by the Impeller of the Rotary Compressor*, CONAT, vol. III, Braşov, 1993.

Deliu GH., Tarnoveanu C., **Cotoros D.**, *Optimization of dynamical tuned gyroscopes*, Acta Universitatis Cibiniensis, Sibiu, 1995, ISSN 1221-4957.

Deliu GH., Tarnoveanu C., **Cotoros D.**, *Gyroscopes with internal elastic suspension*, Acta Universitatis Cibiniensis, Sibiu, 1995, ISSN 1221-4957.

**Cotoros D.**, *The Utilisation of the Gyroscopic Compasses for Land Vehicles*, CONAT, vol. II, Braşov, 1996.

Constantin FL., **Cotoros D.**, *Damping low frequency vibrations of tractor seats by hydro-pneumatic means*, Proceedings of the Scientific Communications Meeting of "Aurel Vlaicu" University, Arad, 1996, ISBN 973-97708-0-0.

Constantin FL., Candea I., **Cotoros D.**, *Hydropulse tests of tractor seat suspension*, 7th Conference on Mechanical Vibrations, Timişoara, 1996, ISSN 1224-7529, ISBN 973-0-00323-8.

Constantin FL., Candea I., **Cotoros D.**, *Designing a method for experimental research of wheeled tractors suspension*, CONAT, vol. V, Braşov, 1996.

**Cotoros D.**, *Study of motion equations solutions for a dynamically tuned gyroscope*, 27th session of scientific communications with international participation, Military Technical Academy, Bucharest, 1997.

**Cotoros D.**, *The Influence of a Harmonic perturbing Function upon the Dynamically Tuned Gyroscope*, Bulletin of the 22nd National Conference of Solids Mechanics, Braşov, 1998.

Constantin F., Ursutiu D., **Cotoros D.**, *Computer Processing of some Experimental Data*, Bulletin of the 22nd National Conference of Solids Mechanics, Braşov, 1998.

**Cotoros D.**, *Effects of Random Perturbations upon Directional Gyros Devices*, CONAT, Automotive for the Next Century, vol.III, Braşov, 1999.

**Cotoros D.**, *On the Trajectories of the Euler Equations*, Bulletin of the Transilvania University of Braşov, vol.6(41), Braşov, 1999, ISSN 1223-9631.

**Cotoros L.D.**, *The Influence of Step and Impulse Perturbations upon Solutions of Motion Equations of a Dynamically Tuned Gyroscope*, The 24th National Conference of Solids Mechanics, Scientific Bulletin vol.II, Chişinău, 2000.

**Cotoros L.D.**, *Rings Displacement Simulation for a Dynamically Tuned Gyroscope*, The 24th National Conference of Solids Mechanics, Scientific Bulletin vol.II, Chişinău, 2000.

**Cotoros D.**, *Presentation of some Results concerning the testing of a Dynamically Tuned Gyroscope*, Scientific Bulletin of the National Session of Communications, 3rd edition, Air Force Academy "Henri Coandă", Braşov, 2000, ISSN 1453-0139.

**Cotoros D.**, *Advantages of using Mathcad for solving motion equations*, International Conference of Scientific Communications Iași, May 2001.

**Cotoros D.**, *Upon a technology of dried testing of radiators tightness*, International Conference of Scientific Communications Iași, May 2001.

**Cotoros D.**, *Modern Technology upon Manufacturing Tubes for Cooling Radiators*, International Conference of Scientific Communications Iași, May 2001.

Deliu GH., **Cotoros D.**, Popescu R., *Analysis and Synthesis of a Plane Linkage Used in Industrial Applications*, 8th International Symposium with international participation, PRASIC , Brașov, 2002, ISBN 973 – 635 – 064 – 9.

**Cotoros D.**, Vlase S., *Vibrations Influence upon the Indications of a Dynamically Tuned Gyroscope*, Proceedings of the VIII – th Symposium, Acoustics and vibrations of mechanical systems, Politehnica Press Timișoara, pag. 131 – 136, ISBN 973 – 625 – 238 – 8.

Vlase S., **Cotoros D.**, *Some Properties of the Eigenvalues and Eigenvectors of the Elastic Systems with Three Identical Parts*, Proceedings of the VIII – th Symposium, Acoustics and vibrations of mechanical systems, Politehnica Press Timișoara, pag. 227 – 231, ISBN 973 – 625 – 238 – 8.

Candea I., Popescu S., **Cotoros D.**, *Kinematic and Dynamic Aspects upon Active Parts for Soil Processing type "Dyna-Drive"*, 2005, 7<sup>th</sup> National Conference for Environment Protection, Biotasas, Brașov

**COTOROS D.**, *A Study upon the Stability Conditions of a Projectile Motion*, 2<sup>nd</sup> International Symposium of Theoretical and Applied Mechanics, under the patronage of Romanian Academy of Technical Sciences, oct.2005, Iași

**Cotoros D.**, Baritz M., Stanciu A., *Conceptual Analysis of Correspondence between Plantar Pressure and Corrective Insoles*, World Academy of Science, Engineering and Technology 59, Paris, 2011, pp.155-158

Baritz, M., **Cotoros, D.**, *Correlative Measurements of Bipedal Behavior for Subjects with or without Morpho-functional Deviations of Plantar Surfaces*, World Academy of Science, Engineering and Technology 59, Paris, 2011, pp.489-493

Date 6.01.2016

Cotoros Laura Diana