Mikkonen, A. & Karvinen, R. 2017 IX International Conference on Computational Heat and Mass Transfer (ICCHMT 2016)

An investigation of fatigue damage development under complete contact fretting test conditions

Muodonmuutoksen mitat kontinuumimekaniikassa

On optimisation of structures under stability constraints - a simple example

Stability-Guaranteed Nonlinear Model-Based Control of Hydraulic Robotic Manipulators
Koivumäki, J. 2 Dec 2016 Tampere University of Technology. 71 p. (Tampere University of Technology. Publication; vol. 1446)

Application oriented wear testing of wear resistant steels in mining industry
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Solar Panel Breakage During Heavy Rain Caused by Thermal Stress

Model-based force and position tracking control of an asymmetric cylinder with a digital hydraulic valve

Plastic deformation of powder metallurgy tungsten alloy foils for satellite enclosures

Menetelmä ja laitteisto selluloosapitoisten materiaalien fibrilloimiseksi; Förfarande och anordning för fibrillering av cellulosahaltiga materialer
Björkqvist, T., Gustafsson, H., Koskinen, T., Nuopponen, M., Vehniäinen, A. & Fredrikson, A. 15 Aug 2016 FI126206

A conceptual modeling and simulation framework for system Design
Energy efficient tracking control of a mobile machine boom mockup
Research output: Scientific › Conference contribution

On the numerical solution of steady-state equations of digital hydraulic valve-actuator system
Research output: Scientific › Conference contribution

Tuntemalla olosuhteet voit optimoida materiaalit kulutussovelluksien
Research output: Professional › Article

Wear resistance of HVOF sprayed coatings from mechanically activated thermally synthesized Cr3C2–Ni spray powder
Research output: Scientific › peer-review › Article

Kitka ja kuluminen haastavat koneensuunnittelijat
Research output: Professional › Article

Corrosion Behavior of WC-FeCrAl Coatings Deposited by HVOF and HVAF Thermal Spraying Methods
Hulka, I., Utu, D., Serban, V. A., Dan, M. L., Matikainen, V. & Vuoristo, P. 2016 In : Chemical Bulletin of “Politehnica” University of Timisoara, ROMANIA Series of Chemistry and Environmental Engineering. 61, 1, 6 p.
Research output: Scientific › peer-review › Article

Exercise loading history and femoral neck strength in a sideways fall: A three-dimensional finite element modeling study.
Research output: Scientific - peer-review › Article

Friction characteristics of a multi-chamber cylinder for digital hydraulics
Research output: Scientific - peer-review › Article

Relänsäennustus testi - voidaanko sen tulos ennustaa vetokokeen perusteella?
Research output: Professional › Article

The cross-sectional area of the gluteus maximus muscle varies according to habitual exercise loading: Implications for activity-related and evolutionary studies
Research output: Scientific - peer-review › Article

The effects of microstructure on erosive-abrasive wear behavior of carbide free bainitic and boron steels
Research output: Professional › Conference contribution

Towards material excellence: Evaluation of Tekes' programmes on materials
Research output: Professional › Commissioned report
Service-based Fault Tolerance for Cyber-Physical Systems: A Systems Engineering Approach
Alho, P. 11 Dec 2015 Tampere University of Technology. 104 p. (Tampere University of Technology. Publication; vol. 1353)
Research output: Collection of articles › Doctoral Thesis

On-Board Electronic Control Systems of Future Automated Heavy Machinery
Karhu, O. 4 Dec 2015 Tampere University of Technology. 148 p. (Tampere University of Technology. Publication; vol. 1352)
Research output: Monograph › Doctoral Thesis

Digital image correlation method in hydro turbine shaft torque and vibration monitoring
Research output: Professional › Conference contribution

Productivity measurement at the factory level
Research output: Professional › Conference contribution

Clean Components of Fluid Power System Reduce Maintenance Costs
Research output: Scientific › Article

Production of sulfonated polyetheretherketone/polypropylene fibers for photoactive textiles
Research output: Scientific - peer-review › Article

ESD and Disturbance Cases in Electrostatic Protected Areas
Research output: Scientific - peer-review › Conference contribution

Effects of surface cracks and strain rate on the tensile behavior of Balmoral Red granite
Research output: Scientific - peer-review › Conference contribution

Modelling and control of vertical oscillation in overhead cranes
Research output: Scientific - peer-review › Conference contribution

High temperature erosion wear of cermet particles reinforced self-fluxing alloy HVOF sprayed coatings
Research output: Scientific - peer-review › Article

Vision-based path coordination for multiple mobile robots with four steering wheels using an overhead camera
Research output: Scientific - peer-review › Conference contribution
Systematic search for design contradictions in systems’ architecture: Toward a computer aided analysis
Research output: Scientific - peer-review › Article

Transpositions and duals high-order tensors. On theory and applications in mechanics
Research output: Scientific › Conference contribution

Education and Materials Joining Research methods at Tampere University of Technology
Research output: Professional › Article

On the direct solution of critical equilibrium states
Research output: Scientific › Conference contribution

Brownfield Process: A Method for the Rationalisation of Existing Product Variety towards a Modular Product Family
Pakkanen, J. 29 May 2015 Tampere University of Technology. 283 p. (Tampere University of Technology. Publication; vol. 1299)
Research output: Monograph › Doctoral Thesis

Hybrid pump drive
Research output: Scientific - peer-review › Conference contribution

Compression model for radial compression of Norway spruce earlywood and latewood
Moilanen, C., Björkqvist, T. & Saarenrinne, P. 19 May 2015 9th International Mechanical Pulping Research Seminar. Trondheim, Norway
Research output: Professional › Conference contribution

Concept design of the DEMO divertor cassette-to-vacuum vessel locking system adopting a systems engineering approach
Research output: Scientific - peer-review › Article

Photoelastic Stress Evaluation and Mechanical Testing of Hybrids
Research output: Scientific - peer-review › Conference contribution

High performance nonlinear motion/force controller design for redundant hydraulic construction crane automation
Research output: Scientific - peer-review › Article

Shop floor-level control of manufacturing companies: an interview study in Finland
Research output: Scientific - peer-review › Article
Hydrofluoric-nitric-sulphuric-acid surface treatment of tungsten for carbon fibre-reinforced composite hybrids in space applications
Research output: Scientific - peer-review › Article

Modeling and Experimental Characterization of Pressure Drop in Gravity-Driven Microfluidic Systems
Research output: Scientific - peer-review › Article

Towards a concept for realizing sustainability in the manufacturing industry
Research output: Scientific - peer-review › Article

Research output: Scientific - peer-review › Article

An anisotropic continuum damage model for concrete
Research output: Scientific › Conference contribution

An experimental and numerical study of the dynamic Brazilian disc test on Kuru granite
Research output: Scientific › Conference contribution

Anomaly Detection and Diagnostics of a Wheel Loader Using Dynamic Mathematical Model and Joint Probability Distributions
Research output: Scientific - peer-review › Conference contribution

A Novel Coaxially Laser-Assisted (COLA) Cold Spray System
Research output: Scientific - peer-review › Conference contribution

Ballistic and numerical simulation of impacting goods on conveyor belt rubber
Research output: Scientific - peer-review › Article

Brownfield process for the rationalisation of existing product variety towards a modular product family
Research output: Scientific - peer-review › Conference contribution

Champion tools: The facilitator's handbook
Collaborative Innovation Capabilities of SME Network
Research output: Scientific - peer-review › Conference contribution

Damage-viscoplastic model based on the Hoek-Brown criterion for numerical modeling of rock fracture
Research output: Scientific - peer-review › Article

Effect of heat transfer on glass quality in tempering
Research output: Scientific - peer-review › Conference contribution

Gain Scheduling Full State Feedback with D-Implementation for Velocity Tracking of Hydrostatic Drive Transmission
Research output: Scientific - peer-review › Conference contribution

Guidelines for Designing Human-friendly User Interfaces for Factory Floor Manufacturing Operators
Research output: Scientific - peer-review › Conference contribution

Hydraulic Cylinder Models for Flexible Multibody System Simulation
Ylinen, A. 2015 Tampere: Tampere University of Technology. 136 p. (Tampere University of Technology. Publication; vol. 1302)
Research output: Monograph › Doctoral Thesis

Image-Based Stress and Strain Measurement of Wood in the Split-Hopkinson Pressure Bar
Research output: Scientific - peer-review › Article

Increasing Employee Involvement in Socially Sustainable Manufacturing: Two Methods for Capturing Employees’ Tacit Knowledge to Improve Manufacturing Processes
Research output: Scientific - peer-review › Conference contribution

Keskipakopumppujen mitoituksen ja käytön haasteet
Research output: Professional › Article

Method for Modelling Strategic Capabilities in Small and Medium Sized Enterprises
Research output: Scientific - peer-review › Conference contribution
Two models for hydraulic cylinder
Research output: Professional › Conference contribution

Vision-based trajectories planning for four wheels independently steered mobile robots with maximum allowable velocities
Ziaei, Z., Oftadeh, R. & Mattila, J. 2015 *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*. Springer Verlag, Vol. 9287, p. 303-309 7 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 9287)
Research output: Scientific - peer-review › Conference contribution

Wood compression model for radial compression of earlywood and latewood
Research output: Scientific › Conference contribution

Method and apparatus for cooling material by atomised spray
Ahonen, S., Karvinen, R. & Vainio, T. 31 Dec 2014 CN102803520
Research output: Scientific › Patent

Versatile erosion wear testing with the high speed slurry-pot
Research output: Scientific › Paper, poster or abstract

Competence needs and a model for the teaching strategy development of mechanical designers in product development
Nevaranta, J. 31 Oct 2014 Tampere: Tampere University of Technology. 141 p. (Tampere University of Technology, Publication; vol. 1245)
Research output: Monograph › Doctoral Thesis

Effects of composition and microstructure on the abrasive wear performance of quenched wear resistant steels
Research output: Scientific - peer-review › Article

A Semantically Enhanced Approach for Orchestration of Web Services in Factory Automation Systems
Puttonen, J. 15 Aug 2014 Tampere: Tampere University of Technology. 157 p. (Tampere University of Technology. Publication; no. 1224)
Research output: Monograph › Doctoral Thesis

Characterisation of Novel Corrosion Resistant Stainless Steel/Rubber/Composite Hybrid Structures
Sarlin, E. 16 May 2014 Tampere: Tampere University of Technology. 71 p. (Tampere University of Technology. Publication; vol. 1208)
Research output: Collection of articles › Doctoral Thesis

Modeling and control of a pneumatic muscle actuator
Jouppila, V. 4 Apr 2014 Tampere: Tampere University of Technology. 95 p. (Tampere University of Technology. Publication; vol. 1199)
Research output: Collection of articles › Doctoral Thesis

Retrofitting digital hydraulics – An analytical study
Research output: Scientific - peer-review › Conference contribution
Erityisalueita. 8 Tiivistimet
Research output: Scientific › Chapter

Erityisalueita. 8.5 Mekatroniikka
Research output: Scientific › Chapter

Abstracts of the 28th International Conference on Surface Modification Technologies, SMT28, Tampere University of Technology, Tampere, Finland, June 16-18, 2014
Research output: Scientific - peer-review › Anthology

A Continuum damage model based on Ottosen's four parameter failure criterion for concrete
Research output: Scientific - peer-review › Article

A Continuum damage model for quasi-brittle materials
Research output: Scientific - peer-review › Conference contribution

Activity report of COST Action TU0905 Working Group 2 – Material characterization and material improvement
Research output: Scientific - peer-review › Chapter

A hydraulic cylinder model for multibody simulations
Research output: Scientific - peer-review › Article

A new Generation Sweating Thermal Manikin for the Evaluation of the Thermoregulation Properties of Protective Clothing
Research output: Scientific - peer-review › Conference contribution

Anisotropic viscodamage-viscoplastic consistency constitutive model with a parabolic cap for rocks with brittle and ductile behavior
Research output: Scientific - peer-review › Article

Application of Design Review to Probabilistic Risk Assessment in a Large Investment Project
Research output: Scientific - peer-review › Conference contribution

Applying the digital image corralation method to fretting contact
Atomistic investigation on the structure-property relationship during thermal spray nanoparticle impact
Research output: Scientific - peer-review › Article

Champion-työkalut: Fasilitoijan ohjeet. Mestariluokan työkalut hankkeiden valmisteluun ja toteuttamiseen
Research output: Professional › Book

Clean Components Decrease Unexpected Maintenance Work
Research output: Professional › Article

Concerns over students role as test users in virtual environments
Research output: Scientific - peer-review › Conference contribution

Delay excited vibrations in grinding wheel rotor system
Research output: Scientific - peer-review › Conference contribution

Design reasoning patterns in NPD education design
Research output: Scientific - peer-review › Conference contribution

Effect of test parameters on large particle high speed slurry erosion testing
Research output: Scientific - peer-review › Article

Equal coded digital hydraulic valve system - improving tracking control with pulse frequency modulation
Research output: Scientific - peer-review › Conference contribution

Evaluation of thermal Comfort Properties of Prototypte Uniforms for Rescue Team Workers
Research output: Scientific - peer-review › Conference contribution

Experimental Comparisons of Sliding Mode Controlled Pneumatic Muscle and Cylinder Actuators
Research output: Scientific - peer-review › Article
Functional failure modes cause-consequence logic suited for mobile robots used at scientific facilities
Research output: Scientific - peer-review › Article

Garment fit by Numbers: Statistical Identification of a Garment’s Misfit
Research output: Scientific - peer-review › Conference contribution

Geometry-Aided Inversion of Manipulator Telescopic Link Length from MEMS Accelerometer and Rate Gyro Readings
Research output: Scientific - peer-review › Conference contribution

Hydraulikkomponenttien testipenkkistandardi ja mittaustuloksia
Research output: Professional › Conference contribution

Impacts of making design decision sequence explicit on NPD project in forest machinery company
Research output: Scientific - peer-review › Conference contribution

Implementing circulating oil lubrication systems based on the IMC-AESOP architecture
Research output: Scientific - peer-review › Chapter

Improved specimen recovery in tensile split Hopkinson bar
Research output: Scientific - peer-review › Article

Industrial cloud-based cyber-physical systems, The IMC-AESOP approach
Research output: Scientific - peer-review › Anthology

Influence of laser hardening to the sliding wear resistance of the PVD (Al,Ti) N-G and nACo(Registered trademark) coatings
Research output: Scientific - peer-review › Conference contribution

Influence of the spray gun type on microstructure and properties of HVAF sprayed Fe-based corrosion resistant coatings
Innovative tool for specifying customer requirements
Research output: Scientific - peer-review › Conference contribution

Issue of using students as test users - some findings in VE testing
Research output: Scientific - peer-review › Conference contribution

Jet pump performance in liquid and gas pumping
Research output: Scientific - peer-review › Conference contribution

Mapping of stress raising in laser clad components depending on geometry and defects
Research output: Scientific - peer-review › Conference contribution

Marking of Thermoregulatory Properties of Clothing Materials
Research output: Scientific - peer-review › Conference contribution

Mechatronic design of digital hydraulic micro valve package
Research output: Scientific - peer-review › Conference contribution

Metallographic Studies of Electron Beam Welded Copper Lid: Macroscopic Studies and Hardness Measurements of the Cross-Section of XK049 at 323deg
Research output: Professional › Commissioned report
Metallographic Studies of Electron Beam Welded Copper Lids: EBSD Studies of the Cross-Section of XKO49 at 323deg
Research output: Professional › Commissioned report

Metallographic Studies of Electron Beam Welded Copper Plates: EBSD Studies of the Cross-Sections and Determination of EBSD Reference Curves by EB-Welded Tensile Test Samples
Research output: Professional › Commissioned report

Microstructural Characteristics and Tribological Behavior of HVOF-Sprayed Novel Fe-Based Alloy Coating
Research output: Scientific - peer-review › Article

Model-based development in the domain of mobile machines
Research output: Scientific - peer-review › Conference contribution

Modeling of Age-Dependent Failure Tendency from Incomplete Data
Research output: Scientific - peer-review › Conference contribution

Nahka-alaan tuotteet esillä
Research output: Professional › Article

Non-Coulomb friction in gross sliding fretting conditions with aluminium bronze against quenched and tempered steel
Research output: Scientific - peer-review › Article

Novel Micro-Welding of Silicon and Glass by Ultrashort Pulsed Laser
Research output: Scientific - peer-review › Article

Numerical and experimental study of percussive drilling with a triple-button bit on Kuru granite
Research output: Scientific - peer-review › Article

On the Structure of Robust Controllers for Infinite-Dimensional Systems
Research output: Scientific - peer-review › Conference contribution

Peruskäyttöalue - metalliteollisuus
Research output: Professional › Article

Proceedings of Ambience 14&10i3m, Scientific Conference for Smart and Functional Textiles, Well-Being, Thermal Comfort in Clothing, Design, Thermal Manikins and Modellin, 7-9 September 2014, Tampere, Finland
Production as a key factor for driving competitiveness in manufacturing industry
Research output: Scientific - peer-review › Conference contribution

Product life cycle disposition model
Research output: Scientific - peer-review › Conference contribution

Properties of WC-FeCrAl coatings manufactured by different high velocity thermal spray processes
Research output: Scientific - peer-review › Article

Requirements for Manufacturing Operations Management and Control Systems in a Dynamic Environment
Research output: Scientific - peer-review › Conference contribution

Rolling-sliding wear of nodular cast iron followers against wire ropes
Research output: Scientific - peer-review › Conference contribution

Simulation Based Methods for Flexible Maintenance Program Development
Research output: Scientific - peer-review › Conference contribution

Sliding mode control of a pneumatic muscle actuator system with a PWM strategy
Research output: Scientific - peer-review › Article

Strain-induced martensitic transformation in EN 1.4318 during successive high and low strain rate loadings
Research output: Scientific › Conference contribution

Surface Processing of Zirconia Ceramics by Laser
Research output: Scientific - peer-review › Conference contribution

Suomalaisten konepajojen tuotannonsuunnittelu on ERP:n ja Excel-taulukoiden varassa
Research output: Professional › Article
Sustainability and Performance Indicators Landscape
Research output: Scientific - peer-review › Conference contribution

Technical cleanliness of assembled fluid power components
Research output: Scientific - peer-review › Conference contribution

Tekstiilien testaus on olennainen osa tekstiilidiplomi-insinöörin koulutusta
Research output: Professional › Article

The effect of test parameters in the impact resistance of a stainless steel/rubber/composite hybrid structure
Research output: Scientific - peer-review › Article

The influence of chatter vibration on the cylindrical transverse grinding machine spindle
Research output: Scientific › Conference contribution

Thermal spray coating processes
Research output: Scientific - peer-review › Chapter

Tribological behavior of HVOF- and HVAF-sprayed composite coatings based on Fe-Alloy + WC-12% Co
Research output: Scientific - peer-review › Article

User Interpretations of Virtual Prototypes: Physical Place Matters
Research output: Scientific - peer-review › Article

Virtual prototypes reveal more development ideas: comparison between customers' evaluation of virtual and physical prototypes
Research output: Scientific - peer-review › Article

Water Hydraulics Pushes Into High-Pressure Systems
Research output: Professional › Article

Current research in component cleanliness of fluid power
Research output: Scientific - peer-review › Conference contribution
Displacement control of a mobile crane using a digital hydraulic power management system
Research output: Scientific - peer-review › Article

Examples of technical cleanliness of fluid power components
Research output: Scientific - peer-review › Conference contribution

Experimental results in Component Cleanliness of Fluid Power
Research output: Scientific - peer-review › Conference contribution

Full-field Strain Monitoring with Digital Image Correlation Method
Research output: Scientific - peer-review › Conference contribution

Hydraulic Energy Recovery in Displacement Controlled Digital Hydraulic System
Research output: Scientific - peer-review › Conference contribution

Kantavuutta maaperään massastabiloinnilla
Research output: Professional › Article

Katsaus mikropolaariseen kontinuumimalliin
Research output: Scientific - peer-review › Article

On the solution of non-linear diffusion equation
Research output: Scientific - peer-review › Article

Puhtaus on puoli hydraulikka
Research output: Professional › Article

Simulation of residual stresses and deformations in electron beam-welded copper canisters
Research output: Professional › Commissioned report

Täältä pesee - Hydraulikkomponenttien pesukoneet ja nesteet kuntoon
Research output: Professional › Article