Model-based force and position tracking control of an asymmetric cylinder with a digital hydraulic valve. / Linjama, Matti; Huova, Mikko; Huhtala, Kalevi.
Research output: Scientific - peer-review › Article

Planning for robotic exploration based on forward simulation. / Lauri, Mikko; Ritala, Risto.
Research output: Scientific - peer-review › Article

Rantanen, Ville (Author); Verho, Jarmo (Author); Vehkaoja, Antti (Author); Veselý, Petr (Author). 2016. Combating Unilateral Facial Paralysis With Low-Latency Muscle Reanimation. National Instruments. .
Research output: Scientific › Digital or Visual Products

Fuel optimal controller for hydrostatic drives and real-world experiments on a wheel loader. / Backas, Joni; Ghabcheloo, Reza; Tikkanen, Seppo; Huhtala, Kalevi.
Research output: Scientific - peer-review › Article

Rantanen, Ville (Author); Vehkaoja, Antti (Author); Verho, Jarmo (Author); Lekkala, Jukka (Author); Ilves, Mirja (Author); Lylykangas, Jani (Author); Surakka, Veikko (Author); Mäkelä, Eeva (Author); Rautiainen, Markus (Author); Veselý, Petr (Author). 2016. Mimetic Interfaces Project: Eye Blink Pacing.
Research output: Scientific › Digital or Visual Products

Constrained Global Path Optimization for Articulated Steering Vehicles. / Choi, Ji-Wung; Huhtala, Kalevi.
Research output: Scientific - peer-review › Article

An ICT-driven Hybrid Automation System for Elderly Care Support: A Rehabilitation Facility Study Case. / Evchina, Yulia; Martinez Lastra, Jose Luis.
In: Journal of Housing for the Elderly, Vol. 30, No. 1, 15.03.2016, p. 52-74.
Research output: Scientific - peer-review › Article

Product, process and resource model coupling for knowledge-driven assembly automation. / Ramis Ferrer, Borja; Ahmad, Bilal; Vera, Daniel; Lobov, Andrei; Harrison, Robert; Martínez Lastra, José Luis.
Research output: Scientific - peer-review › Article

Longitudinal study on text entry by gazing and smiling. / Tuisku, Outi; Rantanen, Ville; Surakka, Veikko.
Research output: Scientific - peer-review › Conference contribution

Rantanen, Ville (Author); Vehkaoja, Antti (Author); Verho, Jarmo (Author); Lekkala, Jukka (Author); Ilves, Mirja (Author); Lylykangas, Jani (Author); Surakka, Veikko (Author); Mäkelä, Eeva (Author); Rautiainen, Markus (Author); Veselý, Petr (Author). 2016. Mimetic Interfaces Project: Functional Electrical Stimulation of Facial Muscles.
Research output: Scientific › Digital or Visual Products

High strain rate radial compression of Norway spruce earlywood and latewood. / Moilanen, Carolina S.; Björkqvist, Tomas ; Engberg, Birgitta A.; Salminen, Lauri I. ; Saarenrinne, Pentti.
Research output: Scientific - peer-review › Article

A novel micro-robotic approach to study the environmental degradation of matrix and fibre materials. / Sarlin, Essi; Essen von, Mathias; Lindgren, Mari; Kallio, Pasi; Vuorinen, Jyrki.
Research output: Scientific › Conference contribution

Research output: Professional › Commissioned report

Robust Inference for State-Space Models with Skewed Measurement Noise. / Nurminen, Henri; Ardeshiri, Tohid; Piché, Robert; Gustafsson, Fredrik.
Research output: Scientific - peer-review › Article

Clean Components of Fluid Power System Reduce Maintenance Costs. / Rinkinen, Jari ; Elo, Lauri.
Research output: Scientific › Conference contribution

Influence of application method and sintering temperature on porosity and thermal conductivity of two commercial silicon carbide based castables. / Silvonen, Jussi ; Ruusila, Viivi ; Levánen, Erkki; Uusitalo, Mikko .
Research output: Scientific › Conference contribution

Automated Microrobotic Manipulation of Paper Fiber Bonds. / Hirvonen, Juha; Essen von, Mathias; Kallio, Pasi.
Research output: Scientific - peer-review › Conference contribution

Decomposition analysis of Cuban energy production and use: Analysis of energy transformation for sustainability. / Vazquez, Luis; Luukkanen, Jyrki; Kaisti, Hanna; Kääkönen, Mira; Majanne, Yrjö.
Research output: Scientific - peer-review › Article

Energy Efficiency Considerations for LED-Based Lighting of Multipurpose Outdoor Environments. / Farahat, Ahmed; Florea, Anna; Martinez Lastra, Jose Luis; Branas, Christian; Azcondo Sanchez, Francisco Javier.
Research output: Scientific - peer-review › Article

An approach for knowledge-driven product, process and resource mappings for assembly automation. / Ferrer, Borja Ramis; Ahmad, Bilal; Lobov, Andrei; Vera, Daniel Alexandre; Martinez Lastra, José Luis ; Harrison, Robert.
Research output: Scientific - peer-review › Conference contribution

Automatic image-based detection and inspection of paper fibres for grasping. / Hirvonen, Juha; Kallio, Pasi.
In: IET Computer Vision, Vol. 9, No. 4, 01.08.2015, p. 588-594.
Research output: Scientific - peer-review › Article

Stability-Guaranteed Force-Sensorless Contact Force/Motion Control of Heavy-Duty Hydraulic Manipulators. / Koivumäki, Janne; Mattila, Jouini.
In: IEEE Transactions on Robotics, Vol. 31, No. 4, 01.08.2015, p. 918-935.
Research output: Scientific - peer-review › Article

Context-aware knowledge-based middleware for selective information delivery in data-intensive monitoring systems. / Evchina, Yulia; Puttonen, Juha; Dvoryanchikova, Aleksandra; Martinez Lastra, Jose Luis.
In: Engineering Applications of Artificial Intelligence, Vol. 43, 08.2015, p. 111-126.
Research output: Scientific - peer-review › Article

Microrobotic platform with integrated force sensing microgrippers for characterization of fibrous materials: Case study on individual paper fibers. / Saketi, Pooya.
Research output: Monograph › Doctoral Thesis
Divertor remote handling for DEMO: Concept design and preliminary FMECA studies. / Carfora, D.; Di Gironimo, G.; Järvenpää, J.; Huhtala, K.; Määttä, T.; Siuko, M.
Research output: Scientific - peer-review › Article

A knowledge-based solution for automatic mapping in component based automation systems. / Ferrer, Borja Ramis; Ahmad, Bilal; Lobov, Andrei; Vera, Daniel; Martinez Lastra, Jose L. Martinez: Harrison, Robert.
Research output: Scientific - peer-review › Conference contribution

From artificial cognitive systems and open architectures to cognitive manufacturing systems. / Iarovyi, Sergii; Martinez Lastra, Jose L.; Haber, Rodolfo; del Toro, Raul.
Research output: Scientific - peer-review › Conference contribution

Knowledge-driven finite-state machines. Study case in monitoring industrial equipment. / Gonzalez Moctezuma, Luis. E.; Ferrer, Borja Ramis; Xu, Xiangbin; Lobov, Andrei; Martinez Lastra, Jose L.
Research output: Scientific - peer-review › Conference contribution

Multiple ontology workspace management and performance assessment. / Xu, Xiangbin; Gonzales Montezuma, Luis; Lobov, Andrei; Martinez Lastra, Jose L.
Research output: Scientific - peer-review › Conference contribution

Representation of manufacturing equipment and services for OKD-MES: From service descriptions to ontology. / Iarovyi, Sergii; Ramis, Borja; Xu, Xiangbin; Sampath, Anisa; Lobov, Andrei; Martinez Lastra, Jose L.
Research output: Scientific - peer-review › Conference contribution

Towards processing and reasoning streams of events in knowledge-driven manufacturing execution systems. / Ferrer, Borja Ramis; Iarovyi, Sergii; Lobov, Andrei; Martinez Lastra, Jose L.
Research output: Scientific - peer-review › Conference contribution

Vision-based path coordination for multiple mobile robots with four steering wheels using an overhead camera. / Ziaei, Z.; Oftadeh, R.; Mattila, J.
Research output: Scientific - peer-review › Conference contribution

Service-oriented approach to fault tolerance in CPSs. / Alho, Pekka; Mattila, Jouni.
Research output: Scientific - peer-review › Article

A time-optimal bounded velocity path-following controller for generic Wheeled Mobile Robots. / Oftadeh, Reza; Ghabcheloo, Reza; Mattila, Jouni.
Research output: Scientific - peer-review › Conference contribution

Electroplated nickel microspring and low-friction precision linear slider: A novel micro-force sensing tool. / Saketi, Pooya; Wangyang, Peihua; Li, Hahua; Wang, Qingkang; Kallio, Pasi.
Research output: Scientific - peer-review › Conference contribution
Novel pairwise coupled kinematic solution for algebraic angular acceleration estimation of serial link manipulators. / Vihonen, Juho; Honkakorpi, Janne; Mattila, Jouni; Visa, Ari.
Research output: Scientific - peer-review › Conference contribution

Optimal sensing via multi-armed bandit relaxations in mixed observability domains. / Lauri, Mikko; Ritala, Risto.
Research output: Scientific - peer-review › Conference contribution

Passive resonance sensor based method for monitoring particle suspensions. / Salpavaara, Timo; Järveläinen, Matti; Seppälä, Sari; Yli-Halla, Teemu; Verho, Jarmo; Vilko, Matti; Lekkala, Jukka; Levänen, Erkki.
Research output: Scientific - peer-review › Article

Tampere University of Technology, 2015. 115 p. (Tampere University of Technology. Publication; Vol. 1303).
Research output: Collection of articles › Doctoral Thesis

Active Object Recognition via Monte Carlo Tree Search. / Lauri, Mikko; Atanasov, Nikolay; Pappas, George; Ritala, Risto.
Research output: Professional › Conference contribution

Energy Efficient Digital Hydraulic Valve Control. / Huova, Mikko.
Research output: Monograph › Doctoral Thesis

Microrobotic system for multi-rate measurement of bio-based fibres Z-directional bond strength. / Latifi, Seyed Kourosh; Saketi, Pooya; Kallio, Pasi.
Research output: Scientific - peer-review › Article

Digital Hydraulics on Rails – Pilot Project of Improving Reliability on Railway Rolling Stock by Utilizing Digital Valve System. / Fischler, Helmut; Laamanen, Arto; Iso-Heikko, Anssi; Schäfer, Oliver; Karvonen, Matti; Karhu, Otso; Huhtala, Kalevi; Puikkinen, Veli-Pekka; Huhtunen, Ali.
Research output: Scientific › Conference contribution

Fault Tolerance of Digital Hydraulics in High Dynamic Hydraulic System. / Siivonen, Lauri; Linjama, Matti; Huova, Mikko; Försterling, Heino; Stamn, Edgar; Deubel, Till.
Research output: Scientific - peer-review › Conference contribution

Hydraulic Hybrid Actuator: Theoretical Aspects and Solution Alternatives. / Linjama, Matti; Huova, Mikko; Pietola, Matti; Juhala, Jyri; Huhtala, Kalevi.
Research output: Scientific › Conference contribution

Vehicle Mass Estimation for Hydraulic Drive System using Longitudinal Motion Model. / Ahopelto, Miika; Krogerus, Tomi; Huhtala, Kalevi.
On improvement of transient stage of composite nonlinear feedback control using arbitrary order set point filters. / Pyrhönen, Veli-Pekka; Koivisto, Hannu.
Research output: Scientific - peer-review › Conference contribution

In: International Journal on Interactive Design and Manufacturing, Vol. 9, No. 4, 22.03.2015, p. 325-338.
Research output: Scientific - peer-review › Article

Composite Nonlinear Feedback Control of a Chemical Reactor. / Pyrhönen, Veli-Pekka; Koivisto, Hannu.
Research output: Scientific - peer-review › Conference contribution

Systematic approach to secure automation – coordinated voltage control use-case. / Salmenperä, Mikko; Seppälä, Jari; Koivisto, Hannu; Lu, Shengye; Repo, Sami.
Research output: Scientific - peer-review › Conference contribution

High performance nonlinear motion/force controller design for redundant hydraulic construction crane automation. / Koivumäki, Janne; Mattila, Jouni.
In: Automation in Construction, Vol. 51, 01.03.2015, p. 59-77.
Research output: Scientific - peer-review › Article

Modeling and Experimental Characterization of Pressure Drop in Gravity-Driven Microfluidic Systems. / Mäki, Antti-Juhana; Hemmilä, Samu; Hirvonen, Juha; Narra Girish, Nathaniel; Kreutzer, Joose; Hyttinen, Jari; Kallio, Pasi.
Research output: Scientific - peer-review › Article

PVDF Microforce Sensor for the Measurement of Z-directional Strength in Paper Fiber Bonds. / Saketi, Pooya; Latifi, Seyed Kourosh; Hirvonen, Juha; Rajala, Sari; Vehkaoja, Antti; Salpavaara, Timo; Lekkala, Jukka; Kallio, Pasi.
Research output: Scientific - peer-review › Article

Characteristics of Digital Hydraulics with Commercial Controllers. / Huova, Mikko; Ahopelto, Miika; Ketonen, Miikka; Ahola, Ville; Linjama, Matti; Huhtala, Kalevi.
Research output: Scientific › Conference contribution

Numerically Efficient Flow Model for On/Off Valves. / Linjama, Matti; Siivonen, Lauri; Huova, Mikko.
Research output: Scientific › Conference contribution

Problems Analysis and Solutions for the Establishment of Augmented Reality Technology in Maintenance and Education. / Martínez Landa, Héctor.
Tampere University of Technology, 2015. 67 p. (Tampere University of Technology. Publication; Vol. 1275).
Research output: Collection of articles › Doctoral Thesis
Fault tolerant control architecture design for mobile manipulation in scientific facilities. / M. Aref, Mohammad; Oftadeh, Reza; Ghabcheloo, Reza; Mattila, Jouni.
Research output: Scientific - peer-review › Article

A comparison of five optical surface topography measurement methods. / Mettänen, Marja; Hirn, Ulrich.
Research output: Scientific - peer-review › Article

Adaptive autoregressive model for reduction of noise in SPECT. / Takalo, Reijo; Hytli, Heli; Ihalainen, Heimo; Sohlberg, Antti.
Research output: Scientific - peer-review › Article

A dynamic paper machine simulator for testing of model predictive control applications. / Yli-Fossi, Timo; Kuusisto, Risto.
Research output: Scientific - peer-review › Conference contribution

A Mapping Method Tolerant to Calibration and Localization Errors Based on Tilting 2D Laser Scanner. / Kolu, Antti; Lauri, Mikko; Hyvönen, Mika; Ghabcheloo, Reza; Huhtala, Kalevi.
Research output: Scientific - peer-review › Conference contribution

A model based analysis of the measurement errors in inductively coupled passive resonance sensors. / Salpavaara, Timo; Lekkala, Jukka.
IMEKO XXI World Congress, Proceedings, August 30 - September 4, 2015, Prague, Czech Republic. ed. / Jan Holub. 2015.
Research output: Scientific - peer-review › Conference contribution

Anomaly Detection and Diagnostics of a Wheel Loader Using Dynamic Mathematical Model and Joint Probability Distributions. / Krogerus, Tomi; Hyvönen, Mika; Backas, Joni; Huhtala, Kalevi.
Research output: Scientific - peer-review › Conference contribution

Architecture for Open, Knowledge-Driven Manufacturing Execution System. / Iarovyi, Sergii; Xu, Xiangbin; Lobov, Andrei; Lastra, Jose L. Martinez; Strzelecza, Stanislaw.
Research output: Scientific - peer-review › Conference contribution

Assistive Situation Awareness System for Mobile Multimachine Work Environments. / Hyvönen, Mika; Rajala, Miika; Virtanen, Ari; Jankkari, Jari; Huhtala, Kalevi; Ritala, Risto.
Research output: Scientific - peer-review › Article

Bayesian statistical analysis for performance evaluation in real-time control systems. / Boström, Pontus; Heikkilä, Mikko; Huova, Mikko; Waldén, Marina; Linjama, Matti.
Research output: Scientific - peer-review › Conference contribution

Cooperative Sensing and Path Planning In a Multi-Vehicle Environment. / Melin, J.; Lauri, M.; Kolu, A.; Koljonen, J.; Ritala, R.
Definition of key performance indicators for energy efficient assessment in the transport sector. / Mantilla, R. M Fernanda; Nieto Lee, Angelica; Lastra, Jose L Martinez.
Research output: Scientific - peer-review › Conference contribution

Design Patterns for Model-Driven Development. / Vepsäläinen, Timo; Kuikka, Seppo.
Research output: Scientific - peer-review › Article

Developing Open Knowledge-Driven Manufacturing Execution System. / Iarovyi, Sergii; Xu, Xiangbin.
Research output: Scientific - peer-review › Chapter

Empowering Industrial Maintenance Personnel with Situationally Relevant Information using Semantics and Context Reasoning. / Hästbacka, David; Aarnio, Pekka; Vyatkin, Valeriy; Kuikka, Seppo.
Research output: Scientific - peer-review › Conference contribution

Gain Scheduling Full State Feedback with D-Implementation for Velocity Tracking of Hydrostatic Drive Transmission. / Backas, Joni; Ghabcheloo, Reza; Huhtala, Kalevi.
Tampere, Finland. Tampere University of Technology. Department of Intelligent Hydraulics and Automation, 2015. p. 64-75.
Research output: Scientific - peer-review › Conference contribution

Industrial Tools for micromanipulation. / Gauthier, Michael; Clevy, Cedric; Kallio, Pasi; Heriban, David.
Research output: Scientific › Chapter

In situ hybridization of pulp fibres using Mg-Al layered double hydroxides. / Lange, Carl; Lastusaari, Mika; Reza, Mehedi; Latifi, Seyed Kourosh; Kallio, Pasi; Fardim, Pedro.
Research output: Scientific - peer-review › Article

Keskipakopumppujen mitoituksen ja käytön haasteet. / Lehtonen, Eetu; Rinkinen, Jari.
Research output: Professional › Article

Low-cost 3D lidar for the mapping of autonomous mobile work machine. / Kolu, Antti; Rajapolvi, Kimmo; Hyvönen, Mika; Mutanen, Petteri; Huhtala, Kalevi.
Tampere, Finland. 2015.
Research output: Scientific - peer-review › Conference contribution

Methodology for energy efficiency assessment in the transport sector for smart cities. / Mantilla R., M. Fernanda; Nieto Lee, Angelica; Lastra, Jose L Martinez; Kotakorpi, Elli.
Research output: Scientific - peer-review › Conference contribution
Research output: Scientific - peer-review › Anthology

Research output: Scientific - peer-review › Chapter

Research output: Scientific - peer-review › Chapter

Vision-based trajectories planning for four wheels independently steered mobile robots with maximum allowable velocities. / Ziaei, Zahra; Oftadeh, Reza; Mattila, Jouni. Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics). Vol. 9287 Springer Verlag, 2015. p. 303-309 (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

Research output: Scientific - peer-review › Article

Research output: Scientific - peer-review › Article

Research output: Scientific - peer-review › Conference contribution

Research output: Monograph › Doctoral Thesis

Research output: Scientific - peer-review › Article

Research output: Scientific - peer-review › Article

Research output: Scientific - peer-review › Conference contribution
Analysis of signals and power flow in a digital hydraulic multi actuator application. / Karvonen, Matti; Heikkilä, Mikko; Linjama, Matti; Huhtala, Kalevi.
Research output: Scientific - peer-review › Conference contribution

A New Flexible Augmented Reality Platform for Development of Maintenance and Educational Applications. / Martinez, Hector; Laukkanen, Seppo; Mattila, Jouni.
Research output: Scientific - peer-review › Article

Aspects of the energy consumption of a digital hydraulic power management system supplying a digital and proportional valve controlled multi actuator system. / Karvonen, Matti; Heikkilä, Mikko; Tikkanen, Seppo; Linjama, Matti; Huhtala, Kalevi.
Research output: Scientific - peer-review › Conference contribution

Augmented reality aiding collimator exchange at the LHC. / Martinez, Hector; Fabry, Thomas; Laukkanen, Seppo; Mattila, Jouni; Tabouriot, Laurent.
Research output: Scientific - peer-review › Article

Aspects of the energy consumption of a digital hydraulic power management system supplying a digital and proportional valve controlled multi actuator system. / Karvonen, Matti; Heikkilä, Mikko; Tikkanen, Seppo; Linjama, Matti; Huhtala, Kalevi.
Research output: Scientific - peer-review › Conference contribution

Automattinen öljyn epäpuhtauksien mittaus ja keskeiset standardit. / Multanen, Petteri; Niiranen, Esko; Elo, Lauri; Rinkinen, Jari.
Research output: Professional › Conference contribution

Automated drop-on-fiber contact angle measurement using a microrobotic platform. / Saketi, Pooya; Hirvonen, Juha; Lai, Yuli; Ganser, Christian; Teichert, Christian; Järnström, Joakim; Fardim, Pedro; Kallio, Pasi.
Research output: Scientific - peer-review › Article

Research output: Scientific - peer-review › Conference contribution

Comparison of proportional control and displacement control using digital hydraulic power management system. / Heikkilä, Mikko; Karvonen, Matti; Linjama, Matti; Tikkanen, Seppo; Huhtala, Kalevi.
Research output: Scientific - peer-review › Conference contribution

Constrained Path Optimization with Bézier Curve Primitives. / Choi, Ji-Wung; Huhtala, Kalevi.
Research output: Scientific - peer-review › Conference contribution

Deriving Efficient and Dependable Parallel Programs from Simulink Models. / Ostroumov, Sergey; Boström, Pontus; Waldén, Marina; Huova, Mikko.
Research output: Professional › Commissioned report
Label-Free and Rapid Electrical Detection of hTSH with CMOS-Compatible Silicon Nanowire Transistor Arrays. / Lu, Na; Dai, Pengfei; Gao, Anran; Väliaho, Jari; Kallio, Pasi; Wang, Yueling; Li, Tie.
Research output: Scientific - peer-review › Article

Measuring resistivity of silicon nanowire using pseudo-random binary sequence injection. / Roinila, Tomi; Zeng, Hongjiang; Verho, Jarmo; Xiao, Yu; Vilkko, Matti; Kallio, Pasi; Lekkala, Jukka; Li, Tie; Wang, Yueling.
Research output: Scientific - peer-review › Article

Mechatronic design of digital hydraulic micro valve package. / Linjama, Matti; Palonitty, Miika; Tiainen, Lassi; Huhtala, Kalevi.
Research output: Scientific - peer-review › Conference contribution

Model-Driven Development of Automation and Control Applications: Modeling and Simulation of Control Sequences. / Vepsäläinen, Timo; Kuikka, Seppo.
Research output: Scientific - peer-review › Article

Non-Invasive System for Mechanical Arterial Pulse Wave Measurements. / Peltokangas, Mikko; Verho, Jarmo; Salpavaara, Timo; Vehkaoja, Antti.
Research output: Scientific - peer-review › Conference contribution

Novel Procedure for Supporting Maintenance of Mobile Work Machines Using R&D Simulators. / Hietala, Jukka-Pekka; Krogerus, Tomi; Multanen, Petteri; Hyvönen, Miika; Huhtala, Kalevi.
Research output: Scientific - peer-review › Conference contribution

On Design and Development of Super-FRS main tunnel Remote Handling System Concept. / Amjad, Faraz; Weick, Helmut; Mattila, Jouni; Kozlova, Ekaterina; Schloer, Christian.
Research output: Scientific - peer-review › Conference contribution

Online monitoring of flue gas emissions in power plants having multiple fuels. / Korpela, Timo; Björkqvist, Tomas; Majanne, Yrjö; Lautala, Pentti.
Research output: Scientific - peer-review › Conference contribution

Photocontrol of Mechanical Properties of Pulp Fibers and Fiber-to-Fiber Bonds via Self-Assembled Polysaccharide Derivatives. / Grigoray, Olga; Wondraczek, Holger; Daus, Stephen; Kühnöl, Katrin; Latifi, Seyed Kourosh; Saketi, Pooya; Fardim, Pedro; Kallio, Pasi; Heinze, Thomas.
Research output: Scientific - peer-review › Article

Pneumatic cell stretching system for cardiac differentiation and culture. / Kreutzer, Joose; Ikonen, Liisa; Hirvonen, Juha; Pekkanen-Mattila, Mari; Aalto-Setälä, Katrina; Kallio, Pasi.
Research output: Scientific - peer-review › Article


Simulation-based design process for the verification of ITER remote handling systems. / Sibois, Romain; Määttä, Timo; Siuko, Mikko; Mattila, Jouni. In: Fusion engineering and design, 2014, p. 2341-2346.


Breaking down the requirements: Reliability in remote handling software. / Alho, Pekka; Mattila, Jouni.
Research output: Scientific - peer-review › Article

Broadband Methods for Online Grid Impedance Measurement. / Roinila, Tomi; Vilkk, Matti; Sun, Jian.
2013 IEEE Energy Conversion Congress & Exposition ECCE, Denver Colorado, USA; September 15-19, 2913.
Research output: Scientific - peer-review › Conference contribution

Combining the Information of Unconstrained Electrocardiography and Ballistography in the Detection of Night-Time Heart Rate and Respiration Rate. / Vehkaoja, Antti; Peltokangas, Mikko; Verho, Jarmo; Lekkala, Jukka.
Research output: Scientific - peer-review › Article

Computer-Assisted Bilateral Teleoperation System for Water Hydraulic Manipulator. / Viinikainen, Mikko; Mattila, Jouni; Tuominen, Janne.
Research output: Scientific - peer-review › Conference contribution

Control arrangement of an electro-hydraulic gas exchange valve actuation system. / Herranen, Mika (Inventor); Huhtala, Kalevi (Inventor); Virvalo, Tapio (Inventor).
Research output: Scientific › Patent

Correlation approach for the detection of the heartbeat intervals using force sensors placed under the bed posts. / Vehkaoja, Antti; Rajala, Satu; Kumpulainen, Pekka; Lekkala, Jukka.
In: Journal of Medical Engineering & Technology, Vol. 37, No. 5, 2013, p. 327-333.
Research output: Scientific - peer-review › Article

Design and analysis of secure integration solution for Smart grids. / Salmenperä, Mikko; Eerola, Risto; Seppälä, Jari; Koivisto, Hannu.
Research output: Scientific - peer-review › Conference contribution

Detection and isolation of faults in mobile hydraulic valves based on a reduced-order model and adaptive thresholds. / Nurmi, Jarmo; Mattila, Jouni.
Research output: Scientific - peer-review › Conference contribution

Digitaalihydrauliikan seminaarin satoa Tampereella. / Linjama, Matti.
Research output: Professional › Article

Displacement control of a mobile crane using a digital hydraulic power management system. / Heikki, Mikko; Linjama, Matti.
Research output: Scientific - peer-review › Article

Divertor cassette locking system remote handling trials with WHMAN at DTP2. / Lyytikäinen, Ville; Kinnunen, Pasi; Köivumäki, Janne; Mattila, Jouni; Siuko, Mikko; Esque, Salvador; Palmer, Jim.
Internal leakage fault detection for variable displacement axial piston pump. / Kivelä, Tuomo; Mattila, Jouni.

Research output: Scientific - peer-review » Conference contribution

Interoperability of remote handling control system software modules at Divertor Test Platform 2 using middleware. / Tuominen, Janne; Rasi, Teemu; Mattila, Jouni; Siuko, Mikko; Esque, Salvador; Hamilton, David.

Research output: Scientific - peer-review » Article


Research output: Scientific - peer-review » Article

Kohti automaattista yksittäisten paperikuitujen manipulointia. / Hirvonen, Juha; Kallio, Pasi.

Research output: Scientific - peer-review » Conference contribution

Koulutuksen ytimessä. / Hietanen, Tero; Rask, Outi; Zenger, Kai; Strömman, Mika.

Research output: Professional » Article

Making sense of information security in real time automation - information flow approach. / Seppälä, Jari; Salmenperä, Mikko; Koivist, Hannu.

Research output: Scientific - peer-review » Conference contribution

Mallipohjainen automaatio tulee. / Vepsäläinen, Timo; Kuikka, Seppo.

Research output: Professional » Article

Mass-Flow Estimation in Mineral-processing Applications. / Väyrynen, Teemu; Itävuo, Pekka; Vilkko, Matti; Jaatinen, Antti; Peltonen, Mika.

Research output: Scientific - peer-review » Conference contribution


Research output: Scientific - peer-review » Conference contribution

MEMS-based State Feedback Control of Multi-Body Hydraulic Manipulator. / Honkakorpi, Janne; Vihonen, Juho; Mattila, Jouni.

Research output: Scientific - peer-review » Conference contribution
Participatory multi-criteria assessment as 'opening up' vs. 'closing down' of policy resources: A case of old-growth forest conflict in Finnish upper Lapland. / Saarikoski, Heli; Mustajoki, Jyri; Marttunen, Mika.
Research output: Scientific - peer-review › Article

Path Planning in Dynamic Environments with the Partially Observable Canadian Traveller's Problem. / Lauri, Mikko; Ritala, Risto.
Research output: Scientific - peer-review › Conference contribution

Patterns for Light-Weight Fault Tolerance and Decoupled Design in Distributed Control Systems. / Alho, Pekka; Rauhamäki, Jari.
Research output: Scientific - peer-review › Conference contribution

Patterns for safety and control system cooperation. / Rauhamäki, Jari; Vepsäläinen, Timo; Kuikka, Seppo.
Research output: Scientific - peer-review › Conference contribution

Patterns in Safety System Development. / Rauhamäki, Jari; Vepsäläinen, Timo; Kuikka, Seppo.
Research output: Scientific - peer-review › Conference contribution

Planning for multiple measurement channels in a continuous-state POMDP. / Lauri, Mikko; Ritala, Risto.
Research output: Scientific - peer-review › Article

Polttoainekulut kuriin. / Huhtala, Kalevi.
Research output: Professional › Article

Position-Based Visual Servoing for Pallet Picking by an Articulated-frame-steering Hydraulic Mobile Machine. / Aref, Mohammad M.; Ghabcheloo, Reza; Kolu, Antti; Hyvönen, Mika; Huhtala, Kalevi; Mattila, Jouni.
Research output: Scientific - peer-review › Conference contribution

Potential of full-web imaging in measuring web structure on-line. / Raunio, Jukka-Pekka; Ritala, Risto.
Research output: Scientific - peer-review › Article

Proceedings of Automaatio XX-seminaari, Automation and systems without borders - beyond future, 21.-22.5.2013, Helsinki. / Vilkko, Matti (Editor).
Research output: Scientific - peer-review › Anthology
Projectkehtoinen työkurssi osana ei-parametrisen mallinnuksen opetusmenetelmiä. / Roinila, Tomi; Vilkko, Matti; Taskinen, Aki.
Research output: Scientific - peer-review › Conference contribution

Pääkirjoitus: Tehokkuutta sitähän se kaikki on. / Huhtala, Kalevi.
In: Fluid Finland, Vol. 12, No. 1, 2013, p. 5-5.
Research output: Professional › Article

Real-Time Service-Oriented Architectures: A Data-Centric Implementation for Distributed and Heterogeneous Robotic System. / Alho, Pekka; Mattila, Jouni.
Research output: Scientific - peer-review › Conference contribution

Research output: Scientific - peer-review › Conference contribution

Recognition of Operating States of a Wheel Loader for Diagnostics Purposes. / Krogerus, Tomi; Hyvönen, Mika; Huhtala, Kalevi.
Research output: Scientific - peer-review › Article

Reliability of operating window identified from process data. / Ihalainen, Heimo; Ritala, Risto; Saarela, Olli.
Research output: Scientific - peer-review › Article

Reliability requirements management for ITER Remote Handling maintenance systems. / Väyrynen, Jukka; Mattila, Jouni.
Research output: Scientific - peer-review › Article

Remote Handling Control System for Water Hydraulic Mover. / Tuominen, Janne; Mattila, Jouni.
Research output: Scientific - peer-review › Conference contribution

Scale and Rotation Invariant Two View Microgripper Detection that Uses a Planar Pattern. / Hirvonen, Juha; Kallio, Pasi.
Research output: Scientific - peer-review › Conference contribution

Semantics enhanced engineering and model reasoning for control application development. / Hästbacka, David; Kuikka, Seppo.
Research output: Scientific - peer-review › Article

Simulation-Based Development of Safety Related Interlocks. / Vepsäläinen, Timo; Kuikka, Seppo.
Research output: Scientific - peer-review › Chapter
Stable and high performance energy-efficient motion control of electric load sensing controlled hydraulic manipulators. / Koivumäki, Janne; Mattila, Jouni.
Research output: Scientific - peer-review › Conference contribution

Super-FRS target area remote handling: Scenario and development. / Orona, Luis Miguel; Weick, Helmut; Mattila, Jouni; Amjad, Faraz; Kozlova, Ekaterina; Karagiannis, Christos; Behr, Karl-Heinz; Winkler, Martin.
Research output: Scientific - peer-review › Article

Survey and Introduction to the Focused Section on Mechatronics for Sustainable and Resilient Civil Infrastructure. / Yunhua, Li; Yang, Wang; Chase, J.G.; Mattila, J.; Hyun, Myung; Sawodny, O.
Research output: Scientific - peer-review › Review Article

Survey on Remote Handling Logistics for Super-FRS Regular Paper. / Amjad, Faraz; Weick, Helmut; Mattila, Jouni; Orona, Luis Miguel; Kozlova, Ekaterina; Winkler, Martin; Behr, Karl-Heinz; Karagiannis, Christos.
Research output: Scientific - peer-review › Article

Suunnittelumallien hyödyntäminen suunnittelutyössä ja oppimisessa. / Rauhamäki, Jari; Rask, Outi; Kuikka, Seppo.
Research output: Scientific - peer-review › Conference contribution

Teollisuusvoimalaitoksen liukuva vastapaineen säätö. / Majanne, Yrjö; Maasalo, Mikael; Nyman, Jarno.
Research output: Scientific - peer-review › Conference contribution

Test bench for measuring technical cleanliness of assembled fluid power components. / Pekkonen, Juuso; Elo, Lauri; Kuosku, Mika; Rinkinen, Jari.
Research output: Scientific - peer-review › Conference contribution

Text entry by gazing and smiling. / Tuisku, Outi; Surakka, Veikko; Rantanen, Ville; Vanhala, Toni; Lekkala, Jukka.
Research output: Scientific - peer-review › Article

Research output: Scientific - peer-review › Conference contribution

The Automation of Multi Degree of Freedom Hydraulic Crane by Using Virtual Decomposition Control. / Koivumäki, Janne; Mattila, Jouni.