1. Record Nr. UNINA9910787078003321 Operation and diagnostics of machines and production systems Titolo operational states II: special topic volume with invited peer reviewed papers only / / edited by Stanislav Fabian and Tibor Krenicky Pfaffikon, Switzerland:,: TTP,, 2014 Pubbl/distr/stampa ©2014 **ISBN** 3-03826-584-5 Descrizione fisica 1 online resource (368 p.) Collana Applied Mechanics and Materials, , 1662-7482; ; Volume 616 Disciplina 658.40352 Soggetti Manufacturing processes - Evaluation Industrial engineering Engineering inspection Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references at the end of each chapters and indexes. Operation and Diagnostics of Machines and Production Systems Nota di contenuto Operational States II; Preface; Table of Contents; I. Theory, Diagnostics and Operational States of Machines; Diagnostic of Manufacturing Devices Operational States by Smart-Phones Application with Use of Augmented Reality Methods; Use of Diagnostic Methods for Monitoring of Disorder State of Production Machines and Equipment; Interactive Monitoring of Production Process with Use of Augmented Reality Technology; Bearing Units and Surface Micro-Geometry of Rolling Races in Textile Machinery Implementation of Method and Structure Handling Manipulation Operations to Hydroabrasive ProcessModelling of the Anisothermal Phase Transformation of Austenite by Electromagnetic Sensor; Degradation Process in Area of Connecting Metal Sheets by Adhesive Bonding Technology in Agrocomplex; Mathematical Modelling and Optimization of Technological Process Using Design of Experiments

Methodology; Boroscopy Application in Assurance of Technological Equipment Operational Capability; Diagnostics of the Arm Actuator

Experimental Investigation and Analysis of the Impact in Abrasive Mass

Position Using Incremental Measurement

Flow Changes with and without the Use of Sieve Analysis on Technological Head Vibrations at Hydroabrasive CuttingDesign of Module of Moving Robot; Operating Characteristics of Antagonistic Actuator with Pneumatic Artificial Muscles; Using Atomic Spectrometry and Volumetry Method for Determination of Bearing Corrosion in Tribotechnical Diagnostics of Engines; Determination of the Suitability of the Method Used for Evaluation Measurement Equipment Capability; Ensuring the Reliability of an Aircraft Engine Hydraulic System Loops Control Structure and Solar System Control of a Multivalent Laboratory under Real-Time ModeMonitoring of Biomass-Based Heat Production System; Impact of Lubrication Interval to Operating Status of Bearing; Analysis of Technological Head Working Pressure, Tilt Angle and Shift Impact to its Vibrations Using AWJ Technology; New Methods of Obtaining Input Data of Numerical Computations by Using Heat Treatment Simulator; Technological Head Tilt Angle Influence Analysis to Generation of Vibration during Ceramics Material Machining by Means of AWJ Technology

Progressive Technology Diagnostics and Factors Affecting
MachinabilityDiagnostic and Experimental Valuation on Progressive
Machining Unit; Analysis of the Damage Causes of High Speed Bearing
Failure; Monitoring of the Influence of Moisture Content in
Thermoplastic Granulate on Rheological Properties of Material; Dynamic
Analysis of Worm Gear Boxes; II. Operation of Production Systems;
Diagnostics of Errors at Component Surface by Vision Recognition in
Production Systems; Short-Term Testing of Cutting Materials Using the
Method of Interrupted Cut; Dynamics of Core Taking out at Die Casting
Diagnostics of Strain Hardening Exponent and Material Constant of
Steel Sheets

## Sommario/riassunto

Special Topic Volume entitled Operation and Diagnostics of Machines and Production Systems Operational States II is focused on the operation, technology and diagnostics of operational states of machines and manufacturing systems. The topic covers research fields that are mainly solved at the Faculty of Manufacturing Technologies of Technical University of Kosice with a seat in Presov for long period of time. Dealing with such kind of research is necessarily associated with high theoretical demands, so authors would like to disseminate achieved knowledge in research, educational and entrepreneu