

Content

Testing (oral presentations):

Analysis and Simulation of Non-Linear Self-Excited Vibrations in Turning Processes	7
Variation of Eigenvalues of a HPC-Motor-Spindle due to Changing Axial Depth of Cut....	13
Analysis of Chatter Detection with a Microphone when Milling	19
Dynamic Testing Using Natural Dynamic Forces	23
Experimental System Identification of Motor Spindles under Idle Running Conditions	29
Application of Intelligent Elements in Vibration Diagnostics of CNC Machine	35
Fast, Accurate Contour Milling with High Surface Definition	39
Radial Stiffness of a Spindle Bearing Knot	43
Cutting Materials for Finishing	49

Technology (oral presentations):

ZPS-FN Traditional Czech Producer of Milling Cutters	57
Economy of Titanium Milling	65
Dry Milling of Ti6Al4V Alloy with Coated Sintered Carbide Tools	71
Influence of Feed Drive on Cutting Process Stability	75
Modelling of the Orthogonal Machining Process using Cutting Tools with Different Geometry	81
Concept for Machined Surface Simulation	87
Influence of the Milling Head Geometry on Tension in Surface Layer of Workpiece	91

Microstructure Changes of Constructional Steel Caused after Cutting with Laser.....	97
Non Traditional Tools for Wood Machining	101

Testing (posters):

Diagnostic Expert System for Machine Tool Spindles	107
Automatic On-Machine Measurement of Complex Parts.....	113
Diagnostic Gearbox in Virtual Environment	119

Technology (posters):

Recognizing Tool Wear Condition by Analysing the High-Frequency Segment of Vibration Spectrum	125
Laser Technologies in RCMT - Surface Treatment and Engraving	131
Optimalization of NC Code	137
The Influence of Conditions in the Aluminium Anodizing Process on Quality of Eloxa Coating Surface at Chosen Al-Alloys	141
Effect of Cutting Conditions and Cutting Media on Cutting Forces, Residual Stress and Roughness of Machined Surface after Milling of Difficult-to-Cut Alloy Ti6Al4V.	145
Increasing of Dynamic Properties on Maximal Height of Machined Face after Milling of Carbon Steel C45.....	149
Optimization of Hydraulic Cylinder Production.....	153
Optimization of Ultrasonic Tool Resonators.....	155
Laser Metal Hardening	159
Laser Cladding of Hardfacing Layers	163