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Nota di contenuto	Contemporary Design and Manufacturing Technology; Preface; Table of Contents; Chapter 1: Advanced Materials and Manufacturing Technologies; After Grinding NC Grinding of Large Curved Surface; An Adaptive Tool Path Generation for Fused Deposition Modeling; An Insight into the Analytical Models of Granular Particle Damping; Analysis on the Innovation and Application of Materials in Green Design; Dynamic Characteristics Analysis of Gantry Machining Center Structure; Establishment of Cutting Model for Three-Axis Surface Machining Based on SolidCAM Machined NURBS Surface Description Using On-Machine Probing DataMethods of Gear Damage Assessment Based on Modal Parameter Identification; Milling Machine Spindle Dynamic Analysis; Modal Analysis and Numerical Solution in Cable Drilling System; Modeling Cutter Engagement Region for Triangular Mesh; Performance Evaluation and Prediction of Escalator Structure Using FEM-Based Analysis; Precision Straightening Method of Thin-Walled Seamless Steel Pipes; Research on the Dynamic Characteristics of NC Boring Machine Spindle System Based on Finite Element Analysis Research on Thermal Error Compensation Instrument Based on Thermal Modal Analysis for NC Machine ToolsSimulation and Experimental Study on Rear Frame Strength of Winch Lashing Car; Study on the Curve Reconstructing in the Process of Blade Repairing; The Application of

Biomimetic Materials on Industry Design Research; The Curved Surface Fitting and Optimization of Scattered Points' Data Based on the Given Surface Tolerance and Fairing; The Derivation and Simulation of Curved Tooth Face Gear Tooth Theoretical Contact-Point Trace Line Equations The Influence of the Laser Cutting System Performance on Cutting Quality The Research of the Epicycloids Bevel Gear Cutting Based on the Common Six-Axis Machine; The Vibration Isolation Effect Research of the Floating Raft Isolation System Based on the Adjustable Flexibility of Foundation; Track Smoothness of Moving Axis Considering Kinematical Characteristics of Machine Tool; Numerical Simulation of Hydro-Forming Process of Shaped Tube; Chapter 2: Control, Automation and Detection Systems; Development of Off-Line Inspection System on Equipment Based on Embedded Linux Technique Design and Implementation of Online Monitoring and Remote Diagnostic System for CNC Machine Tools The Research on Modular Adaptable Design Platform for Non-Standard Waste Detection Equipment; Centralized Monitoring Method for Isomeric Heat Treatment Equipments; Dynamics Analysis of ADCP Carrier and its Mooring System; Improved Local Mean Decomposition and its Application to Fault Diagnosis of Train Bearing; Online Monitoring Recognition Theory Based on the Time Series of Chatter; Research on Agricultural Harvester Data Detection System Based on Remote Monitoring Research on Feature Extraction of Acoustic Emission Signals in Time-Domain

Sommario/riassunto

The special topic volume communicates the latest progress and research results of new theory, new technology, method, equipment and so on in Engineering Technology, and to grasp the updated technological and research trends in internationally. The major topics covered by the special volumes include Advanced Materials and Manufacturing Technologies, Control, Automation and Detection Systems, Advanced Design Technology, Optimization and Modeling. In 80 invited and peer-reviewed papers, mechanical and other engineers describe their recent and current research and results in advanced materials and
