CIRP UNIFIED KEYWORD LIST

Up-Dated September 2019

The use of keywords in the abstract of papers is fundamental for the documentation of papers and articles in the international scientific world. The CIRP community has always been aware of this requirement and, to this aim, the working group on UNIFICATION has prepared and continuously updated CIRP UNIFIED KEYWORD LIST, which must be used by all the authors of papers in the CIRP Annals and in any other publication under the CIRP heading. While preparing the abstract of your paper you have to identify your paper with three keywords from the list in the following order:

- The first keyword identifying the general subject of the paper
- Two following keywords to detail particular aspects of the paper.

The keywords should be used in singular form, with the first letter in upper case, as they appear in the list. Authors may use the third keyword free, taking into account new emerging areas. The free keyword should always be the last one. The keywords should be separated by a comma.

The Technical Secretary

3D-Image processing
Abrasion
Accuracy
Acoustic emission
Active Damping
Actuator
Adaptive control
Adaptive manufacturing
Additive Manufacturing
Algorithm
Alignment
Alloy
Aluminium
Analysis
Anisotropy
Artificial intelligence
Assembly(ing)
Atomic force microscopy (AFM)
Augmented reality
Automation
Axiomatic
Ball
Ball screw
Bearing
Bending
Biologically inspired design
Biomedical
Blanking
Bonding
Boring
Brittleness
Burr
Calibration
Carbide
Casting
Centerless
Ceramic
Chatter
Chemical vapor deposition (CVD)
Chip
CO2 emission
Coating
Cognitive Robotics
Cold forming
Compensation
Complaint management
Complexity
Composite
Computer aided design (CAD)
Computer aided manufacturing (CAM)
Computer automated process planning (CAPP)
Computer numerical control (CNC)
Conceptual design
Concurrent engineering
Condition monitoring
Control
Cooling
Coordinate measuring machine (CMM)
Coordination
Cost
Cryogenic machining
Cubic boron nitride (CBN)
Customisation
Cutting
Cutting edge
Cutting tool
Damage
Damping
Deburring
Decision making
Deep drawing
Deep hole drilling
Defect
Deformation
Delamination
Design
Design method
Design optimization
Development
Diamond
Diamond coating
Diamond tool
Die
Digital Manufacturing System
Digital Twin
Direct printing
Disassembly
Discrete element method
Distortion correction
Distributed control
Distributed design
Distributed manufacturing
Dressing
Drilling
Drive
Dynamics
Eco-design methodology
Economics
Electric vehicle
Process control
Processing
Product
Product development
Production
Production planning
Productivity
Profile
Programming
Prototyping
Punching
PVD-coating
Quality
Quality assurance
Quality control
Quenching
Rapid prototyping
Rapid tooling
Reconfiguration
Recycling
Reliability
Removal rate
Replication
Residual stress
Reuse
Reverse engineering
Robot
Rolling
Roughness
Roundness
Safety
Scanning electron microscope (SEM)
Scanning tunnelling microscopy (STM)
Scheduling
Selective laser melting (SLM)
Selective laser sintering (SLS)
Semiconductor
Sensor
Sequencing
Service
Servo system
Shape memory alloy
Sheet metal
Silicon
Silicon carbide
Simulation
Single crystal
Sintering
Soldering
Spindle
Spline
Springback
Stability
Stainless steel
Stamping
Standardization
Statistical process control (SPC)
Steel
Stereo lithography
Stiffness
Straightness
Strain
Stress
Structural analysis
Structure
Super abrasive
Surface
Surface analysis
Surface integrity
Surface modification
Sustainable development
Sustainable machining
Synthesis
System
System architecture
Tapping
Temperature
Tensile strength
Texture
Thermal effects
Thermal error
Titanium
Tolerancing
Tool
Tool geometry
Tool path
Topography
Tribology
Turning
Ultra precision
Ultra-high strength steel
Ultrasonic
Uncertainty
Vibration
Virtual reality
Visual inspection
Wafer
Waterjet machining
Wear
Welding
White layer
Wind energy
Wire EDM
Workpiece
X-ray
Y
Z