

Keywords index

3D printing	565	Cemented carbides	170
3D Scanning camera	449	Ceramics	408
5-Axis machining	570	Cermets	170
A grey based approach	770	Change in system value	816
Acceptance sampling plan	622	Chatter	580
Adaptive control with optimisation	469	CMM	565
Adhesive bonding	301	CNC turning	580
Aerodynamic properties	635	Cobalt-base alloy	364
Alloys	275	Cold forging	327
Aluminum	463	Collaborative	803
Aluminium 5058	306	Collaborative design	518
Aluminium matrix composites	191,290	Commercial aluminium alloy	565
Aluminium alloys	485	Composites	241, 269, 505
Amorphous materials	254	Computational mechanics	505
Analysis and modelling	422-602	Concentrated hard-sphere suspension	699
Annotated paraconsistent logics	491	Concurrent engineering	690
Applied mechanics	434, 602	Conical spur gear	429
Artificial intelligence	595	Consultancy project	803
Artificial intelligence methods	469, 547	Continuous casting process	683
Assembly	705	Continuous chip	580
Asset management	853	Continuous improvement	794
Australia Post	732	Control charts	498
Automate Guided Vehicle (AGV)	442	Corrosion	197, 247
Automation engineering processes	639, 662	Cost of downtime	732
Automotive	705	Crater wear	415
Automotive components	595, 558	Cutting force	320, 580
Automotive steel	646	Cutting stability	531
Availability	498, 816	Cutting tools	170
Aviation	827	Cyclic torsion	391
Barium ferrite	269	Damage mechanisms	294, 391
Barrier	719	Deep Hole Drilling (DHD)	485
Bending	699	Design	301, 576
Biomaterials	197, 203, 247, 348	Design for reuse	595
BIW	690	Design materials	862
Body fluids	247	Development of new curricula for BSc	
Body in white	705	and MSc studies in the field of materials science	862
Breakeven availability	816	DFE	690
Broken chip	580	DFMA	690
BSC	803	DFR	690
Business performance	747	DFX	690
CAD	429	Die design	463
CAD modelling	449	Dilatant fluid	699
CAD/CAM	449, 570	Dimensional tolerance	565
Carbon/epoxy laminates	385	Downtime	732
Casting	123	Drop tower	822
Cavitation	378	Dynamic material flow	526
		Dynamic precipitation	275
		Dynamic recrystallisation	218

Easy tool	699	Impact	505
Education and research trends	846-862	Impact load	505
Effectiveness	622	Implementation	622
Electrical double layer	197	Induction heating	320
Electrical properties	348	Industrial knowledge management	803
Electromagnetic transducers	683	Industrial management and organisation	719-837
Electron microscopy	254, 262, 312, 408	Information systems	853
End-milling	320	Information systems implementation	853
End-of-life vehicle	595	Injection moulding	212
Engineering education	846	Inspection process	662
Engineering leadership	827, 846	Integrated model	477
Engineering polymers	212	Integrated risk ratio	778
Environment and manufacturing innovations	678	Intelligent control	540
Environmental management	778	Intercritical annealing	646
Erosion	378	Intermetallic phase	262
Extra cellular matrix	373	Intermetallics	191, 290
Extrusion	463	Ion implantation	373
 Failure rate	 498	 JADE	 518
Fatigue	398	Knee prostheses	610
Fatigue test	356	Knowledge sharing	747
Fe-Cr-Mn and Fe-Cr-Co alloys	378	Laser	148
Fiber content	385	Laser modelling	233
Finite element analysis	576	Laser processing	378
Finite Element Method (FEM)	456, 558	Laser treatment	233
Finite element model	463	Laser welding	402
Finite element simulation	327	Lean manufacturing	794
Five-axis machining	531	Learning	853
Flank wear	415	Light weight bus body	456
Force control	469	Lighting	756
Four-axis machining	510	LSW theory	226
Fracture	398	 Machining	 469
Fracture characteristics	356	Machining Center	518
Frequency response	531	Machining strategy	610
Friction measurement	327	MADM 770	
Functional integration	853	Magnesium alloy	123, 398
Functionally graded material	422	Magnetic properties	335
Fuzzy multi-objective model	762	Mail processing	732
 Gas corrosion	 364	Malaysia	719
Genetic algorithms	547	Management education	846
Geometric Dimensioning and Tolerancing (GD&T)	662	Manipulator	434
GRC	241	Manufacturing	616, 705, 862
 Heat	 756	Manufacturing and processing	610-712
Heat treatment	148, 226, 233, 254, 646	Manufacturing process planning optimization	671
Helical rotor	510	Manufacturing technology management	810
High Power Diode Laser	123	Materials	191-281
High Speed Machining	306	Materials resistance	678
High speed manufacturing	794	MCDM	762
High-manganese steels	218	Mean time between failures	498
High-speed material handling	526	Measured temperature	683
High-speed rolling bearing	553	Measurement	616
Hollow sphere	422	Mechanical alloying	191, 290
Hot machining	320	Mechanical behaviour	398
Hot-working	218	Mechanical properties	254, 341, 356, 629
Humidity	241	Mechatronics	639
Hybrid process	654	Metadynamic recrystallization	218
Hydriding metals	678	Metal flow	463

Metal matrix composites	233, 294	Press forming	558
Metallic alloys	197, 218, 226, 247, 262, 281, 312, 335	Pressing force	588
Methodology of research	402-415	Process reliability	498
Micro-alloyed 23MnB4 steel	356	Process selection	671
Microassembly	588	Process sequencing	671
Microballoon	341	Product development process	747
Microgravity	822	Product development time	725
Microstructure	262, 290	Production and operations management	770, 810
Minimum Quantity Lubricant (MQL)	485	Production planning and control	786, 810
Mixed integer formulation	477	Production-distribution plan	477
Model of culture fit	837	Productivity and performance management	756, 810
Monitoring	588	Professional development	846
MSTP procedure	547	Profibus	540
Multi-Agent	518	Project management	739, 803
Multi-discipline	803	Properties	290-398
Nanocomposites	212	Quality assessment	712
Nanocrystalline materials	335	Quality assurance	622
NC programming	570	Quality control	705
Neural networks	786	Quality management	778, 810
Noise	756	Quality tools	739
Non-conventional injection moulding	212	Queuing theory	526
Non-destructive testing	385	 	
Notch wear	415	Rapid prototyping	565
Numerical simulation	553	Reconfigurable manufacturing	671
Numerical techniques	602, 639	Reduced gravity	822
 		Redundancy	491
Octoid tool	429	Regulation	827
Opinion questionnaire	491	Relative importance of criteria	762
Optical sensor	402	Reliability	816
Optimal oil spraying mode	553	Residual life analysis	312
Optimisation	429, 477, 786	Residual stress	654
Organisational alignment	853	Rietveld method	269, 408
Organisational culture	853	Risk management	827
Organisation	616, 827, 837	Robotics	639
Organisational performance		Roller cage shatter	553
Osteoblasts	373	Roughness	373
Oxidation resistance	364	Ruled surface	510
Oxide and nitride ceramics	170	 	
 		Safety	827
Palletizing	526	Saffron	635
Para-Analyzer algorithm	491	Sandwich structures	301
Parts loading scheduling	671	Saw tooth chip	415
Performance	616	SEM	294, 391
PID control	442	Shaft	588
Plasma diagnostics	402	Sheet metal forming	690, 699
Plastic forming	275, 699	Sheet metal forming industry	558
Plastic instability	281	Silicates	212
Plate	588	Simulation	794
PLC (Programmable Logic Control)	540	Singular area	570
Pocket design	463	SMEs	719, 803
Polymer processing	212	Software-independence translation	725
Polypropylene	341	Solid tyre	576
Portevin – Le Chatelier effect	281	Solidification point	683
Postprocessor	510	Space manufacturing	822
Powder metallurgy	335	Spectrum analysis	531
Power Spectrum Density	580	Spherical tooth	429
Precipitation and coagulation	226	Sport shoe sole	306
Pre-control	705	Strain	241

Strain rate	341	Tool trajectory error	570
Supplier selection	762, 770	Toolpath	510
Supply chain management	477, 719, 747, 810	TOPSIS concepts	770
Supply network	477	TOPSIS method	762
Surface deflection	558	Toraya procedure	269, 408
Surface layer	170	Translation routine	725
Surface quality	610	Transportation effect	434, 602
Surface roughness	327, 415, 654	Transversally vibrating systems	434
Surface treatment	197, 203, 348	TRIP microstructure	646
System optimisation	794	TRIZ	456
System value	816		
Teaching	862	Ultrasonic fatigue	391
Technological devices and equipment	635, 639	Values survey module	837
Technological efficiency	786	Very high cycle range	391
Technological process	778, 786	Vibration modes	531
Temperature	485	Vibration/chatter	320
Tensile test at elevated temperature	281	Vibrations	602
Tertiary institutions	862		
Thai shoe size	449	Welding	705
Thermal analysis	123	Wind tunnel	635
Thermal stress	422	Working properties of materials and products	275
Thermography	385		
Thick composites	301	X-ray phase analysis	269, 408
Thin and thick coatings	203, 629	Yield	398
Ti-6Al-4V	320		
Tip test	327	Zero gravity	822
Titanium alloys	610	Zinc plating technological process	547
Tool life	320, 610		
Tool materials	148		