Topic	Theme	Scope
T01	Numerical modeling of Single Spark EDM process	Numerical model, governing equations, assumptions, Results, Discussion
T02	Numerical modeling of Laser beam machining process	Numerical model, governing equations, assumptions, Results, Discussion
T03	CAD of Tools for micro ECM process	Process Modeling, Algorithm, case studies, Results

T04	Centreless Grinding process - Modeling and simulation	Process Kinematics, Geometrical rounding off model, Results
T05	Numerical analysis of tool temperature in Orthogonal machining	Numerical model, Solution method, Results, Discussion
T06	Prediction of Residual stresses in machining processes	Numerical model, Typical process, results, discussion (Exptl if interested)
T07	Artificial Neural network in predicting machining process performance	ANN basics, typical case study, architecture, results , discussion - 2 Topics

T08	Optimization of machining processes using software Toolbox	Study of tool box, cae study, typicalprocess, (could use matlab or other)
T09	Electro chemical Discharge machining (ECDM)	Process, Set up, Parameters, Applications
T10	Assessing 3 D surface textures	Techniques, Inspection equiments, Staststical parameters calculations
T11	Machining of composite materials	Composite materials, Problems in machining, parameters, applications

T12	Chatter vibrations in Turning	Chatter definition, causes, remedies. Preliminary analysis
T13	Gear Shaping Process	Machine, Setup, Gear shaping cutters, kinematics, problems and remedies
T14	Ultra Precision polishing processes	Typical process, set up, process parameters, applications
T15	Diamond Turning Process	Need, machines, set up, process parameters, applications

T16	Machining of complex geometries using Electrochemical Micro Machining	Algorithm, machining setup study, case studies, results
T17	Focussed ion beam micro and nano machining	Process, Set up, Parameters, Applications
T18	Hybrid Machining (additive and subtractive machining)	Typical process, set up, process parameters, applications
T19	Honing and lapping finishing processes	Typical process, algorithm, set up, process parameters, applications

T20	Tool Coating techniques in Machining on cutting tools (CVD/PVD)	CVD/PVD coating techniques, set up , applications, Advantages
T21	Machining of Thin-Walled Components	Investigate the strategies and considerations for machining thin-walled components, focusing on avoiding deformation and achieving precision.
T22	surface texture generation techniques	reverse EDM, texture generation, applications
T23	real time tool life monitoring for turning	Set up, sensors,data collection, processing , results, case studies

T24	smart machining systems-operation and control	Set ups, elememts, operation and control, case study, results.
T25	studies on micro milling- force and tempreture measurement	Set up, sensors,data collection, processing , results, case studies
T26	burr formation and control in micro milling	causes of burr,fators affecting, studies on burr formation, control
T27	johnson cook material model for orthogonal machining	JC model,studies on orthogonal machining using JC model, results

T28	Gear inspection techniques for spur gears	Gear inspection parametres , techniqies, instruments, results
T29	inspection methods for micro nano components	Need, inspection requirements, techniques, instruments
T30	formation of titanium nanotube growth	Need, techniques, case study, results.