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Nota di contenuto	Intro -- AIMTDR 2021 Conference Core Organizing Committee -- Foreword -- Contents -- About the Editors -- Prediction of Machining Quality and Tool Wear in Micro-Turning Machine Using Machine Learning Models -- 1 Introduction -- 2 Experimental Study -- 2.1 Speed Control -- 2.2 Cutting Tool -- 2.3 Vibration Measurement -- 2.4 Surface Roughness Measurement -- 2.5 Tool Flank Wear Measurement -- 3 Machine Learning Models -- 3.1 Multilayer Perceptron -- 3.2 Random Forest (RF) -- 3.3 Regression Trees -- 3.4 Radial-Based Functions (RBF) -- 4 Results and Discussion -- 5 Conclusions -- References -- Plasma Characterization in Ultrasonic Vibration-Assisted Micro-Electrical Discharge Machining (μ -EDM) -- 1 Introduction -- 2 Ultrasonic Vibration-Assisted EDM -- 3 Experiment Performed -- 4 Plasma Temperature and Density -- 4.1 Analysis of the Spectrum -- 4.2 Calculation of Plasma Temperature -- 4.3 Electron Density Calculation -- 5 Results and Discussions -- 5.1 Plasma Temperature -- 5.2 Electron Density -- 5.3 Effect of Ultrasonic Vibration -- 6 Conclusions -- References -- Effect of Process Parameters on Accuracy of Holes Drilled on Quartz by Micro-USM -- 1 Introduction -- 2 Experimental Setup Details and Planning -- 3 Measurement of Responses -- 3.1 Measurement of Overcut -- 3.2 Measurement of Taper Angle -- 4 Results and Discussion -- 4.1 Variation of Overcut

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