List of abbreviation and Symbols

ABN	Acoustic Barkhausen Noise
AFM	Abrasive Fluid Machining
AI	Artificial Intelligence
ANN	Artificial Neural Network
ANOVA	Analysis of Variance
AWLT	Average white layer thickness
BBD	Box-Benhken Design
BE	Barkhausen Emission
BN	Barkhausen Noise
CCD	Central Composite Design
CCRD	Central Composite Rotatable Design
C_{VT}	Material eroded per discharge pulse
DOE	Design of Experiment
DOF	Degree of Freedom
DWs	Domain Walls
ECT	Eddy Current Testing
EDAD	Electro Discharge Abrasive Drilling
EDM	Electrical discharge machining
EPMA	Electron Probe Microanalyzer
ER	Electrorheological
EW	Electrode Wear
EWR	Electrode Wear Ratio
EWR	Electrode Wear Rate
FEM	Finite Element Method
G	Radial Overcut
GA	Genetic Algorithm
GEP	Genetic Expression Programming
HAZ	Heat Affected Zone
Hgb	Field strength for grain boundary
HV	Microhardness
I_P	Pulse current
LGP	Lexicographic Goal Programming
MAE	Magnetic Acoustic Emission
MBE	Magnetic Barkhausen Emission
MBN	Magnetic Barkhausen Noise
MFL	Magnetic Flux Leakage
MMAE	Mechanical Magnetic Acoustic Emission
MMM	Metal Magnetic Memory
MRR	Material Removal Rate
MS	Mean Square
MVS	Magnetizing voltage sweeps
NC	Numerical Control
NDT	Non-Destructive Technique

NDT	Non Destructive Testing
P/M	Powder Metallurgy
PMDEDM-	Powder Metallurgy EDM
R&D	Research and development
Ra	Average surface roughness
R_a	Average surface roughness
RCL	Recast Layer
REW	Relative Electrode Wear
rms	root mean square
RSM	Response Surface Methodology
RW	Relative Wear
S/N	Signal to Noise
SDR	Surface Deposition Rate
SEM	Scanning electron microscope
SR	Surface Roughness
SS	Sum of Square
SWR	Surface Deposition Rate
T_{off}	Pulse off time
T_{on}	Pulse on time
TW	Tool Wear
TWR	Tool Wear Rate
UACEDM	Ultrasonic Assisted Cryogenically Cooled EDM
USM	Ultra Sonic Machine
Vg	Gap Voltage
WL	White Layer
WLT	White Layer Thickness
XEC	X-ray elastic constant
XRD	X-ray diffraction
η	duty factor
μ_{IDP}	Irreversible Differential Permeability
μs	Microsecond
τ	duty cycle