

## ACRONYMS and ABBREVIATIONS

ACT-R	Adaptive control of thought-rational
A/D	Analog-to-digital
AGA	Area of glenoid asymmetry
ANOVA	Analysis of variance
BMI	Brain-machine interface
cm	centimeters
CNC	Computer numerically controlled
CNC-EDM	Computer numerically controlled-electro discharge machine
CPU	Central processing unit
CTD	Cumulative trauma disorder
3D	Three dimensional
dB	decibel
df	degrees of freedom
EMG	Electromyography
GPM	General purpose machine
HCMII	Human CNC machine interface
HMI	Human machine interaction
HS	Harmonized system
IMP	Intramuscular pattern
IMTMA	Indian machine tools manufacturers association
ISB	International society biomechanics
ISIC	International standard industrial classification
ISO	International organization for standardization
IT	Information technology

ITC	International trade classification
LED	Light emitting diode
MATB	Multi-attribute task battery
MHz	Megahertz
ms	milliseconds
MSD	Musculoskeletal disorder
MT	Movement time
MUX	Multiplexer
mv	millivolts
MVC	Maximum voluntary contraction
MVE	Maximum voluntary excitation
MVTA	Multimedia video task analysis
NC	Numerical control
PMT	Pre movement time
OA	Orthogonal array
OSHA	Occupational safety and health administration
R&D	Research and development
RCMI	Robot CNC machine interface
rGMR	relative glucose metabolic rate
RH	Right handed
RSI	Repetitive strain injury
RT	Reaction time
SD	Standard deviation
SITC	Standard international trade classification
SME	Small and medium enterprises
S/N	Signal-to-noise
SPM	Special purpose machine

VAS	Visual analogue scale
VDT	Visual display terminal
VDU	Visual display unit
WHO	World health organization
WMSD	Work related musculoskeletal disorder
WRULD	Work related upper limb disorder

## NOMENCLATURE

<b>Symbol</b>	<b>Description</b>
A	CNC machine panel height
B	CNC machine panel angle
C	Working distance
AxB	Interaction between CNC machine panel height and panel angle
AxC	Interaction between CNC machine panel height and working distance
BxC	Interaction between CNC machine panel angle and working distance
n	Total number of the tests
s	Standard deviation
w	normalized weighing value
x	data pre-processing value (reference and comparability sequences)
y	value at a particular experiment corresponding to a particular test for determining S/N ratio

### Greek Symbols

$\eta$	signal-to-noise ratio
$\xi$	grey relational coefficient
$\Delta$	deviation sequence

$\varsigma$	distinguishing or identification coefficient
$\epsilon$	dimensionless parameter
$\nabla$	dimensionless parameter
$\gamma$	grey relational grade

### Subscripts

i	experiment
j	test
k	factor
1	parameter level 1
2	parameter level 2
3	parameter level 3
27	number of experiment conducted