

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202311060383 A

(19) INDIA

(22) Date of filing of Application :08/09/2023

(43) Publication Date : 06/10/2023

(54) Title of the invention : SYSTEM FOR DETECTING ANOMALIES AND PREVENTING FAULTS IN MACHINE TOOLS AND METHOD THEREOF

(51) International classification :G05B0019418000, G06N0020000000, G07C0005080000, G05B0023020000, G05B0019042000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The present disclosure relates generally to field of machine tools. More specifically the present invention relates to a system for detecting anomalies and preventing faults in machine tools. The system (100) includes a machine tool (102), a data acquisition device (104), an anomaly detection unit (106), an alert unit (104) and a communication interface (110). The data acquisition device (104) is configured to acquire operational data from the machine tool (102). The anomaly detection unit (106) is embedded with machine learning algorithms configured to analyze the operational data to detect a plurality of anomalies in the machine tool (102). Further the present invention relates to a method for detecting anomalies and preventing faults in machine tools. Advantageously, the present invention relates to a system and method enable early detection and prevention of faults in machine tools, thereby reducing downtime, improving production efficiency, and enhancing overall equipment effectiveness

No. of Pages : 20 No. of Claims : 10