عنوان مقاله:

Combining Failure Mode and Effects Analysis(FMEA) with CNC for safety enhancement andprevention of production errors

نویسندگان:

Iman Sohrabi Moghadam Chafjiri - *Department of Electrical Engineering, Lahijan Branch, Islamic Azad University,Lahijan, Iran*

Hossein Akbarnejad Demouchali - *Department of Mechanical engineering, Lahijan Branch, Islamic Azad University,Lahijan, Iran*

خلاصه مقاله:

Failure Mode and Effects Analysis (FMEA) is a valuable methodology for risk assessment andmitigation in various industries, including CNC (Computer Numerical Control) machining. This articleexplores the challenges and strategies associated with the integration of FMEA into CNC processes.CNC machining, with its complex and multifaceted operations, presents unique hurdles for effectiveFMEA implementation. The article discusses the complexities of CNC processes, the need foraccurate data, and the subjectivity involved in assessing failure modes. It also highlights the resourceintensivenature of FMEA and the challenges in overcoming resistance to changewithin organizations. Furthermore, the article underscores the importance of continuous monitoringand updates, cross-functional collaboration, and risk prioritization. It emphasizes the need tointegrate FMEA seamlessly with CNC software tools and systems while complying with regulatorystandards. Addressing these challenges requires a proactive approach that includes proper training,data management systems, and a culture that promotes safety, quality, and continuousimprovement. By navigating these challenges strategically, organizations can harness the power ofFMEA to enhance the reliability and efficiency of CNC machining processes.

کلمات کلیدی:

Failure Mode and Effects Analysis – CNC machining - safety enhancement -Risk Assessment - Process Reliability

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