Manual Lathe Extension

An integration of Old with New

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***Abstract****—* This abstract discusses an enhancement in conventional lathe machine. Now-a-days amongst many products which are manufactured using modern technology which is a communion of computer software, hardware and firmware, the lathe machine plays a vital role in this manufacturing sector. Hence, researchers are trying out new enhancements in the conventional lathe machine. The latest amongst these developments is the use of the Computer Numeric Control for automation of the manual lathe machines, which are termed as CNC lathe machines. Although, the CNC lathe machines provide desired accuracy and efficiency but they require a huge capital. Also, due to modernized industrialization, replacing the manual lathe machines with more efficient CNC lathe machines cannot be affordable to all the small scale and medium industries. In this dilemma, the designing of an extension for manual lathe can enhance its existing properties. Here, the conventional lathe machine has been equipped with a controlling device i.e. a microcontroller to control the motor movement. Thereby making the manual lathe machine enough compatible with the CNC machine. Henceforth, this extension will have almost all the characteristics of a CNC machine including the benefit of lower cost investment than purchasing a new machine.

**Keywords— CNC, Lathe.**