PERFORMANCE ANALYSIS OF COATED AND UNCOATED TOOLS DURING MACHINING INCONEL 625 ALLOY

A Project report submitted
In the partial fulfillment of the requirements for award of Degree of

BACHELOR OF TECHNOLOGY
IN
MECHANICAL ENGINEERING

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(PERMENANTLY AFFLIATED TO JNTU-KAKINADA, ACCDREDITED BY NBA & NAAC,
APPROVED BY AICTE, RECOGNISED BY UGC 12f & 2b)
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2016-2020

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CERTIFICATE

This is to certify that the thesis entitled "**PERFORMANCE ANALYSIS OF COATED AND UNCOATED TOOLS DURING MACHINING INCONEL 625 ALLOY**" being submitted by

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in partial fulfillment of the requirement for the award of the degree of BACHELOR OF TECHNOLOGY in MECHANICALENGINEERING is a record of bonafide work done by him under my supervision during the academic year 2019-2020.

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ABSTRACT

- Machining is the heart of any manufacturing industry. From any small electronic component to heavy and macro size material requires machining for its production. Cutting tool is required for machining process. Engineers and scientists are working to find out the best technique for increasing the efficiency of machining process.
- The coating of cutting tool is one of the processes to increase the performance and productivity in machining process. The objective of this thesis work is to analyze the performance of single point cutting tool coated with metal in the turning operation of Inconal. The single point cutting tool is used for machining cylindrical shaped specimen of Inconal. A number of tests are performed with different cutting speeds, feed rates and depth of cuts. The temperature in the chip-tool interface and surface roughness is measured and material removal rate is calculated. These data helped in analyzing the performance of cuttingprocess.