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(57) Abstract :
ABSTRACT EXPERIMENTAL RESEARCH ON METAL MATRIX COMPOSITE TO BE USED IN HYDRAULIC TURBINE BUSH Hydraulic turbine bush is the component which is exposed to water and subjected to wear at higher rate causing the failure in the turbine. The objective of this work is to develop a metal matrix composite with high resistance to wear, corrosion and increased hardness. In this investigation AA6061 aluminum amalgam is considered as the base material and SiC + TiO2 utilized as the support materials. The mixes of fortifications are changed at foreordained portions to distinguish the better piece material having better properties. Mix cast strategy is utilized to manufacture the composites and the composite examples were exposed to mechanical and wear tests. From the SEM and XRD results, the built up examples shows uniform dissemination of the particles inside the examples grid, demonstrating a homogeneous materials accomplished by means of mix cast procedure. The outcomes further showed an improvement in the hardness, yield strength, extreme rigidity, and consumption obstruction of the supported AA6061 composites which can be utilized to produce the water powered turbine bush.

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