Proceedings of the International Conference on Applied Mechanical Engineering Research (IC-AMER2019)
NIT Warangal, India – May 02-05, 2019
Paper No. XXX (The number assigned when the papaer is accepted)

Review on Effect of Various Types of Reinforcement Particles on Dry Sliding Wear Behaviour of Aluminium Alloy Matrix Composites

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The aluminum matrix composites, especially with hybrid reinforcement are the complex materials that have been generally utilized as a substitute material in the transport sector, to produce lighter-weight and higher-efficient components. With the creation and advancement of these aluminum metal matrix composites different downsides faced by the engineering society have been conquer and most ideal solutions are given. As these components are frequently subjected to sliding wear under working conditions, subsequently a few of these applications require improved frictional and wear resistance. An endeavor has been made to present and review the different viewpoints significant to sliding wear behaviour of aluminum alloys and the hybrid composites, with various mixes of reinforcements. Further, it has been discovered that the expense and the weight of the aluminum matrix composites can be extensively controlled, by expansion of hybrid reinforcements, without compromising the tribological properties. This paper leads the scientists and engineers towards proper selection of materials by their properties in the significant field and diverse systems associated with manufacturing of metal matrix composites, especially on the fluid state metal handling method like stir casting process parameters and preparation of AMC utilizing aluminum alloy as matrix form and various ceramic materials as reinforcements by varying proportion. This paper presents impacts of dry sliding parameters (sliding distance, sliding speed and load) combined with process parameters on the dry sliding wear behaviour of aluminum composites prepared by stir casting method. Numerous analytical works have been done on the effect of sliding speed, load and sliding distance.

***Keywords*:** Aluminium Composites, Hybrid Reinforcements, Stir Casting, Wear Behaviour.