## INVESTIGATION OF CONTACT STRESSES & WEAR PARAMETERS FOR PIN ON DISC USING DIFFERENT PIN MATERIALS

K. Phani Raja Kumar<sup>1</sup>, S. Udaya Bhaskar<sup>2</sup> and P.Nagalakshmi Devi<sup>3</sup>

<sup>1</sup>Project Manager in Supply Chain Management & Digital Transformation in Information Technology sector, Tech Mahindra, US.

<sup>3</sup>Assistant Professor, Malla Reddy Engineering College(Autonomous), Telangana, India

<sup>2\*</sup>Associate Professor, Malla Reddy Engineering College(Autonomous), Telangana, India

Email: udaylohith1412@gmail.com

**Abstract**: Wear component is an important factor influencing products service life which is based on material property and their behavior under given conditions. Therefore it is important to predict wear rate of components. In this paper we have discussed the wear parameters of pin on disc by varying pin materials. Numerical analysis was conducted on basis of load for different material components. When two bodies are in contact, contact pressure induces stresses in components. Due to coefficient of friction, heat is generated between components. Hertz theory has been considered to determine the wear characteristic by using different pin materials on a steel disc.

**Keywords**: Wear, Contact Stress, Contact Pressure, Wear rate and Co-efficient of friction.