

## **ABSTRACT**

### **DESIGN OF VIBRATION SIMULATION AT THE ROTATING SHAFT WITH ROUND AND ARCH LOAD VARIATIONS**

*Vibration is a sure thing in a system working on an installation machine. But the excess vibration certainly would have an effect on the performance or the age of the power of an existing component. The purpose of the creation of this vibration simulation tool is to find out what factors are influencing the magnitude of the vibration value on the axis. Vibration testing performed on nine measurement point, i.e. the point of vertical, horizontal, axial, on bearing 1, bearing 2 and electric motor the front and rear. On each variable load, will vary with the rotation of the electric motor, so so the obtained data of vibration against the variable weights and variable round. From the results of testing conducted obtained the results that the higher rotation of the engine, the higher the vibration happens, plus the addition of a load in the direction of the vertical shaft, leading to higher vibrations on the vertical direction. The presence of large also affect small misalignment vibrations arise.*

*Keywords : vibration, rotating shaft, vibration measurement*