

ABSTRACT

In the next few years, the industry will enter a new era called Industry 4.0. Industry 4.0 is a new industrial stage where there is integration between manufacturing operations, information technology and communication (ICT) systems, especially the Internet of Things (IoT). PT Sandy Globalindo is a private company that produces several motorbike spare parts products according to existing orders or made to order. CNC Milling A machine is one of eleven CNC machines owned by PT. Sandy Globalindo. This machine has a function to form the material with the basic shape of the beam into the desired shape. Damage to this machine is often caused by coolants that constantly wet the rail bearing, so that the surface of the surface rail bearing is no longer flat and rusty. This has an impact on the production process which is disrupted because damage to the rail bearing causes vibrations to the high engine so that the output produced is not in accordance with the standard set, which is rough and does not pass the Quality Control test. Therefore, we need a device that can detect the function degradation of the bearing rail. This tool can monitor vibrations that occur on the machine in real time and designed to determine the condition of the machine online through web servers and applications on mobile phones.

Keywords: Industry 4.0, IoT, rail bearing, coolant, CNC Milling