

# Indirect Measurement System for Angular Velocity

Adrian MUREȘAN

## **Abstract**

*This paper describes a solution for indirect measurement of the angular velocity of an rotating axle. As it is well known, if the axle is unbalanced, the spinning motion of the axle will induce vibration in the fixed parts. Attaching a very sensitive acceleration sensor allows to measure these vibrations. The signal acquired from the sensor will present a periodic behavior which is correlated to the rotational speed of the axle. These “beats” are indication of the RPM of the axle and can be extracted using signal processing techniques.*