

## Implementation of ISO 26262: Issues and Challenges

**Authors :** Won Jung, Azianti Ismail

**Abstract :** Functional safety is about electrical, electronics, and programmable electronic safety-related system focuses on the potential risk of malfunction which may have a significant impact on the safety of humans and/or the environment based on IEC 61508. In November 2011, the automotive industry has been introduced to automotive functional safety ISO 26262 which addresses the complete safety installation from sensor to actuator with its technical as well as management issues. Nowadays, most of the modern automobiles are equipped with embedded electronic systems which include many Electronic Controller Units (ECUs), electronic sensors, signals, bus systems and coding. Due to upcoming more sophisticated systems installed in automobiles, the need to carry out detailed safety is very crucial. Assimilation of existing practices with this new standard is a major challenge for the automotive industry in reducing redundancy, time and resources. Therefore, this paper will analyze the research trends on pre and post introduction of ISO 26262 through publications as well as to take a glimpse in the activities for implementing this standard by the automotive manufacturers around the world. It is going to highlight issues and challenges which have been discussed among the experts in this field. Even though it will take some time for this standard to be fully implemented, the benefits from this implementation will raise the competitiveness in the global automotive market.

**Keywords :** ISO 26262, automotive, functional safety, implementation, standard, challenges

**Conference Title :** ICIE 2014 : International Conference on Industrial Engineering

**Conference Location :** Kuala Lumpur, Malaysia

**Conference Dates :** February 13-14, 2014