# USAGE OF RFID IN SAFETY APPLICATIONS

A SEMINAR REPORT

*Submitted by*

# S1

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# ABSTRACT

RFId systems allow remote recognition of items by means of radio communications. A tag is coupled to an object and it can record information such as personal data, photos and other information. The tag can be inserted into objects and coated with different materials for the various usages. Moreover, it can be customized with prints, images and bar codes. A reader interrogates the tags to obtain the information of interest. Before using an RFId system for a safety application, one has to know and understand the best way it operates. RFId systems allow innovative solutions to achieve some of the health and safety requirements, in particular: in machinery applications, where RFId systems can be used as additional safety device, as interlocking device, as additional PPE; in workplaces, where they can be used as an access key and for localization of workers; as a safety inventory; for environmental parameters recording; as a solution for installations; in the medical sector, for the identification and localization of equipment, patients and workers, for the tracking of surgical instruments, for monitoring biological parameters or the state of the treatment; and also for the improvement of the accuracy of excavations in the subsoil.

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