Systematic Mapping Study on RFID Technology

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Abstract: The technique known as radio frequency identification (RFID) allows for the real-time monitoring of objects at every stage of a mobile object network and the reporting of information on their present condition in addition to serving as an object identifier. One of the most promising research fields nowadays is RFID, which is getting more and more attention. There is a tonne of literature in the field of RFID as a result of this interest. But because the research was carried out from various angles, there is now a growing body of knowledge that is dispersed across numerous fields. We conducted a systematic mapping study (SMS) to fill this gap. The SMS is based on a well-established research methodology from the scientific communities of medicine and software engineering, and it aims to analyse and identify the approaches used, the quantity and quality of publications, the types of research, and publication trends that have shaped the field of RFID research over the past 20 years. Its findings were based on 219 studies that were carefully chosen from 4294 studies found in the digital libraries of IEEE Xplore, Scopus, and Web of Science and categorised by research type, research area, citation type, and application domain. In order to determine future research paths in the RFID field, we analysed and synthesised the findings of this SMS. This SMS's first in breadth offers a reliable, thorough, and reproducible description of contemporary RFID technology; The results could have repercussions for professionals like researchers, journal editors, reviewers, and universities that want to comprehend and use RFID.

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