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## **A SECURITY REVIEW OF PROXIMITY IDENTIFICATION BASED SMART CARDS**

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### **Abstract**

The widely used ISO/IEC 14443 product standard of Radio Frequency Identification (RFID) technology is currently increasingly penetrating the government and public sector applications in South Africa (e.g. National e-ID and public transportation). The security of ISO/IEC 14443 proximity cards is covered widely in literature addressing different types of attacks, e.g. relay, skimming and eavesdropping attacks. These attacks are performed on certified compliant proximity smart cards illustrating vulnerable standardised parameters that the ISO/IEC 14443 standard left out for the user or designer security implementation. From literature it shows that most attacks (e.g. relay attacks) manage to overcome the implemented security measures.