

Automatic toll payment based on *blockchain*

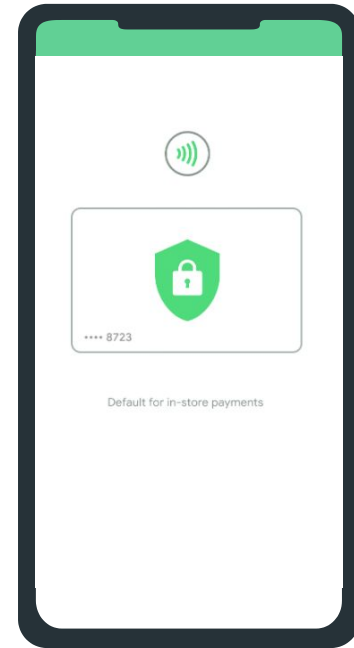
Students:

80000 Paulo Sousa
80190 Bruno Castro
80131 Gabriel Malta
84758 Rafael Oliveira
84931 Hugo Moinheiro

Advisor: João Almeida

Co-Advisor: Paulo Bartolomeu

Collaborator: Emanuel Vieira

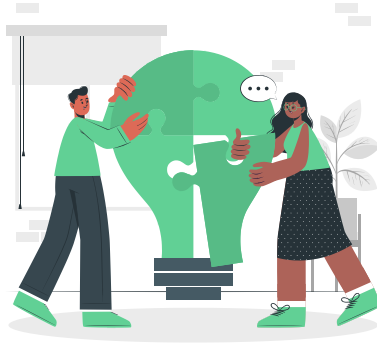


Context

- **PASMO** (Open Platform for development and experimentation of Mobility Solutions)
- Smart Mobility, Intelligent Transportation Systems and Vehicular Communications
- Emergence and evolution of cryptocurrencies and DLT-based transactions
- Services
 - Secure
 - Efficient
 - Reliable
 - Smart
 - Automatic

Problem

- Service that allows you to pay **tolls** in real time using only your smartphone



Objectives

- Real-time payment process in a mobile app
- Monitoring transaction data in a Web platform
- Integration with an existing roadside payment system



Tasks

- Mobile interface that implements blockchain-based transactions for tolling payments
- Communications between **Smartphone** and **RSUs** using wireless networks
- Backoffice Web application
- Interconnection between Web platform and RSUs for payment information collection

Expected Results



Functional and approachable mobile platform



Organized and dynamic web monitoring platform