



BA/MA/SA:

## Secure E-Voting

In some cantons of Switzerland, there is a possibility to vote electronically via an online system. However, two main institutions that used to provide this service - the government of Geneva and the Swiss Post - have terminated their e-voting service due to security issues in the source code.

This thesis focuses on extending Helios - a web-based electronic voting system that provides verifiability and security of the tallying phase. This system has been implemented for several elections, such as IACR elections, and has widely been used as a reference for developing new e-voting systems. In a previous project, a protocol has been implemented that secures the Helios system against malicious voting devices. Your task would be to extend the existing implementation and develop new methods with a focus on a secure registration phase.



**Requirements:** Creativity and experience with Python as well as web programming are required for this project. Knowledge in Cryptography would be advantageous. The student(s) should be able to work independently!

**Interested? Please contact us for more details!**

### Contacts

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