PhD Position:
Post-Quantum Secure Electronic Identities

Secure Applications Group

Excited to Bring Modern Cryptography into Practice?

Are you ready to bridge the gap between **cryptographic research** and **eGovernment technologies** used in the real world? If you've completed your master's degree and are eager to tackle some of today's most pressing security challenges, come join the **Secure Applications Group**.

As your first project, you'd be looking to apply cutting-edge **Post-Quantum Cryptography** (PQC) technologies to electronic identities.

As quantum computers advance, traditional cryptography—like that used in ID Austria and the European Identity Wallet—is becoming vulnerable. These systems rely on mathematical foundations that quantum computing threatens to break. While Post-Quantum Cryptography (PQC) provides solutions, the integration of PQC into large-scale systems remains a complex challenge.

It is thus important to migrate existing systems to PQC — and build new systems with PQC already integrated; your research will dig into the technical, organizational and legal challenges of the *how* and the *why*.

Prerequisites

> Master's Degree w/ Information Security major
> (maybe possible to start during thesis - talk to us!)

> Strong understanding of cryptographic concepts

> Programming skills
> (preferably in Java/Kotlin)

Interested?
Let's get in touch!

Join our team!

Salary & Job Details

- ☑ **Salary**
  min. 3.714 € per month (gross)
  for 40 hours per Uni-KV
  overpayment to 4.485 € (IT-KV ST2R) typical

- ☑ **Fully funded PhD position!**

- ☑ **Office at ISEC**
  Home Office Agreement
  Flexible Working Hours

- 📍 **ISEC PhD Handbook:**
  isec.tugraz.at/join/phd-program

Recommended if you're studying

☑ CS   ☑ ICE

Contact

If you are interested or have questions, contact any Secure Applications team member. (Find us on ISEC's 2nd floor!)

Or: send your application (CV + brief motivation) directly to bewerbung@a-sit.at

Deadline

Please send your application until **May 21, 2025**.