

# Information Security Technology CSE – IST special master track → Kerckhoffs Institute

Sandro Etalle  
Berry Schoenmakers

IST - coordinators



**TU** / **e**

Technische Universiteit  
**Eindhoven**  
University of Technology

**Where innovation starts**

# IST-specific issues

- **Study program**
  - Kerckhoffs Institute
  - Courses, requirements
- **(Re-)Registration, Exams, Grades**
- **Final project**

# Kerckhoffs Institute

- Full program, since September 2006
- Cooperation between TU/e, RU Nijmegen, UTwente
  - Combines expertise in security
  - Wide variety of security courses
- Website: [www.kerckhoffs-institute.org](http://www.kerckhoffs-institute.org)
  - also contains Google calendar
- EIPSI = Eindhoven Institute for Protection of Information [www.win.tue.nl/eipsi/](http://www.win.tue.nl/eipsi/)
  - Combines security research at Math & CS
    - Security group (CS)
    - Coding & Crypto group (Math)



Eindhoven Institute for  
the Protection of Systems  
and Information

**Year 1, Fall, Semester 1**

Events shown in time zone: Amsterdam [Google Calendar](#)

day	mon	tue-thu	fri
<b>site</b>	<i>UT (route + maps)</i>	<i>UT, RU, TU/e</i>	<i>TU/e (route + maps)</i>
time slot		(local courses)	
3-4	<i>Introduction to Security</i>		<i>Cryptography 1</i>
5-6	<i>Pattern Analysis with applications in Biometrics</i>		<i>Linux Kernel and Hacker's Hut</i>
7-8	<i>Security of Information services</i>		

**Year 1, Spring, Semester 2**

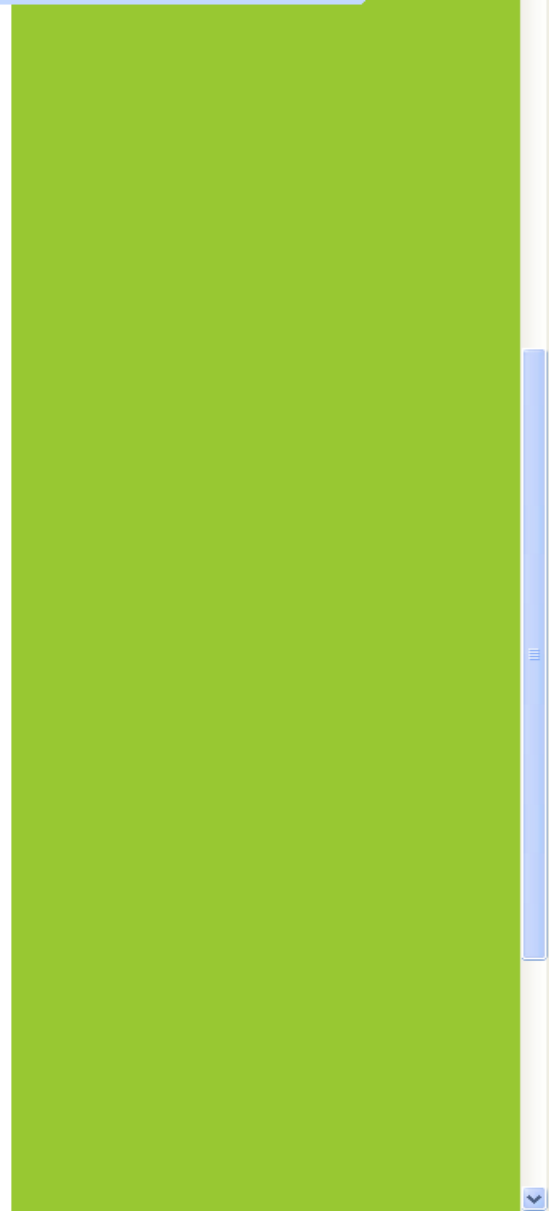
day	mon	tue-thu	fri
<b>site</b>	<i>TU/e (route + maps)</i>	<i>UT, RU, TU/e</i>	<i>RU (route + maps)</i>
time slot		(local courses)	
3-4	<i>Verification of Security Protocols</i>		<i>Software Security</i>
5-6	<i>Cryptography 2</i>		<i>(Privacy) Seminar</i>
7-8	<i>Seminar Information Security Technology</i>		

**Year 2, Fall, Semester 3**

day	mon	tue-thu	fri
<b>site</b>	<i>RU</i>	<i>UT, RU, TU/e</i>	<i>UT</i>
time slot		(local courses)	
3-4	<i>Security in Organisations</i>		<i>Secure Data Management</i>
5-6	<i>Hardware and Operating Systems Security</i>		<i>Network Security</i>
7-8	<i>Law in Cyberspace</i>		

**Year 2, Spring, Semester 4**

day	mon	tue-thu	fri
<b>site</b>		<i>UT, RU, TU/e</i>	
time slot		Master thesis	
3-4			
5-6			
7-8			



# IST courses

<b>C Verification of Security Protocols</b>	<b>TU/e</b>	<b>2IF02</b>
<b>E Seminar Information Security Technology</b>	<b>TU/e</b>	<b>2IF03</b>
<b>C Introduction to Computer Security</b>	<b>UT</b>	<b>2IF05</b>
<b>C Software Security</b>	<b>RU</b>	<b>2IF06</b>
<b>C Security in Organizations</b>	<b>RU</b>	<b>2IF07</b>
<b>C Network Security</b>	<b>UT</b>	<b>2IF08</b>
<b>E Biometric Recognition</b>	<b>UT</b>	<b>2IF09</b>
<b>E Distributed Trust Management</b>	<b>TU/e</b>	<b>2IF11</b>
<b>E Law in Cyberspace</b>	<b>RU</b>	<b>2IF12</b>
<b>E Privacy Seminar</b>	<b>RU</b>	<b>2IF13</b>
<b>E Hardware and Operating System Security</b>	<b>RU</b>	<b>2IF14</b>
<b>E Secure Data Management</b>	<b>UT</b>	<b>2IF15</b>
<b>C Cryptography 1</b>	<b>TU/e</b>	<b>2WC12</b>
<b>E Cryptography 2</b>	<b>TU/e</b>	<b>2WC13</b>
<b>E Linux Kernel and OS Security</b>	<b>TU/e</b>	<b>2WC16</b>
<b>E Security of Information Services</b>	<b>UT</b>	<b>2IF16</b>
<b>[ E Internship</b>	<b>TU/e</b>	<b>2IM00 ]</b>
<b>C Master Project</b>	<b>TU/e</b>	<b>2IM91</b>

# IST Master's

- **6 core IST courses**
  - **3 electives IST courses**
  - **further electives:**
    - **[homologation courses]**
    - **remaining IST courses**
    - **elective CSE courses**
    - **[internship; for TU/e bachelors only ]**
  - **Master project (6 months)**
- **36 ECTS**
  - **18 ECTS**
  - **36 ECTS**
  
  - **30 ECTS**
- TOTAL: 120 ECTS**

# For courses at RU and UT

- **(Re-)register as a “bijvak” student, both at RU and UT**
  - **See Kerckhoffs site for instructions, basically:**
    - You need “Bewijs Betaald Collegegeld”
      - Payment of paid tuition fee at TU/e for 2010-2011
    - You need proof that you are qualified to follow the master courses at RU and UT
      - e.g., because you have a Bachelors (or almost ...)
- **Make sure to “register” as a TUE-Kerckhoffs student (by contacting me, sending me an email)**
  - Ensures that your exam results will be entered “automatically” into the TUE system (OWinfo).
  - Indicate if you don’t have an “OV kaart”
- **Try to do this all by the end of September**

# 1<sup>st</sup> year IST students

- **Make a schedule for the 1<sup>st</sup> semester & 2<sup>nd</sup> semester**
- **Fit in any homologation courses**
- **Fit in any general CSE electives**



# 2<sup>nd</sup> year IST students

- **Make a schedule for the 3<sup>rd</sup> semester**
- **Prepare for master's project in 4<sup>th</sup> semester:**
  - **Pick up the master's project package at the studentenadministratie**
    - **instructions + forms**
  - **Search and choose a topic, company, TUE-supervisor for the master's project**
    - **Duration 6 months**
      - **Start in February, end in July/August**
    - **Must be sufficiently scientific/academic**
    - **See also Kerckhoffs site for some available projects**

# Some IST graduates

- **Giorgi Moniava**
  - **Master's project at PriceWaterhouseCoopers**
  - **“Extending DigiD to the Private Sector (DigiD-2)”**
  - **Afterwards: PhD student at Twente University**
- **Eva Mwangi**
  - **Master's project at Philips Research Labs, Eindhoven**
  - **“Patient consent policies in XACML”**
  - **Afterwards : employed by ING bank, Amsterdam**
- **Diego Ortiz Yopez**
  - **Master's project at IBM Zurich Labs**
  - **“Enhancing authentication in eBanking with NFC enabled mobile phones”**
  - **Afterwards : employed by IBM Zurich Labs**
- **Ivo Pooters**
  - **Master's project at Fox-IT**
  - **“Forensic Data Acquisition from Symbian Smart Phones”**
  - **Afterwards : employed by Fox-IT**

# Auguste

- [auguste.kerckhoffs-institute.org](http://auguste.kerckhoffs-institute.org)
- Email: [auguste.community@gmail.com](mailto:auguste.community@gmail.com)
- 
- **“Auguste is an informal society of Kerckhoffs Students, by Kerckhoff Students and for Kerckhoff Students.**
- **We offer a focal point online where students, past and present can communicate with each other, help organise events (like our recent trip to Fox IT) and generally provide information concerning the Kerckhoffs Program from a students perspective.**
- **More information can be found on our website, we also have Facebook and LinkedIn for those who use social networking”**

# Contact details

Sandro Etalle  
Security group / EIPSI  
Dept. of Math. and CS

**Office: HG 9.83**

[s.etalles@tue.nl](mailto:s.etalles@tue.nl)

<http://www.win.tue.nl/~setalle/>

Berry Schoenmakers  
Coding and Crypto group / EIPSI  
Dept. of Math. and CS

**Office: HG 9.90**

[berry@win.tue.nl](mailto:berry@win.tue.nl)  
[l.a.m.schoenmakers@tue.nl](mailto:l.a.m.schoenmakers@tue.nl)

<http://www.win.tue.nl/~berry/>

[www.kerckhoffs-institute.org](http://www.kerckhoffs-institute.org)

[www.win.tue.nl/eipsi/](http://www.win.tue.nl/eipsi/)

[www.win.tue.nl](http://www.win.tue.nl)