

DAMOC Results

Dissemination Conference



KARLSTAD
UNIVERSITY
SWEDEN

Leonardo A. Martucci



Karlstad University

- Some Facts:
 - 16,000 students
 - 250 doctoral students
 - 1,300 staff
 - Established 1999
- And chronology:
 - University college (1977-1999)
 - Branch of U. Gothenburg (1967-1977)
 - Nursing school since 1907
 - Teacher education since 1843



Personnel Involved

- Simone Fischer-Hübner



- Hans Hedbom



- Leonardo Martucci






Results

- **Planning**
 - Planning for curricula and modules
- **Training and Teaching**
 - Description of modules
 - Development of training material
 - Development of teaching material
 - Exchange of training staff
- **Quality Plan**
- **Dissemination**
 - Dissemination conference
- **Management**
 - Coordination meetings

Results: Training and Teaching

- Description of modules
 - “Data Security and Privacy for the Smart Grid” (with TUD)
 - Training material
 - for the five security/privacy submodules (with TUD)
 - Teaching material
 - lectures and teaching material
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- A list of lectures and short lectures:
 - Privacy and data protection
 - Privacy fundamentals
 - Privacy and risk assessment
 - PbD, Design Principles
 - PETs (Smart Grid)
- + open online course on PbD

Module 3

Security and Privacy Management

- Risk Management
 - Risk Analysis
 - Risk Analysis Methods

Slides + Literature

- Privacy and Data Protection Impact Assessment (DPIA)
 - DPIA according to the GDPR
 - DPIA methods

5 Slide Sets + Videos + Literature

Module 4

Security and Privacy in Software Dev

- Design Principles for Security
 - Saltzer and Schröder Principles

Slides + Literature

- Software Security
 - Broken Abstractions, Overflows, Memory Management, Fuzzing.

2 Slide Sets + Literature

- Privacy Paradigms
 - From the Research Perspective
- Privacy by Design
 - Cavoukian PbD Principles
- DP by Design and Default
 - Based on ULD recommendation

5 Slide Sets + Videos + Literature

Module 5

Security and Privacy (Counter)Measures

- Security Basic Measures

- Cryptography
 - encryption, authentication
- Authentication
- Access Control

- Network and Web Security

- Network Security
 - IDS and Firewalls
- Web security

Slides + Videos + Literature

- Privacy Basic Measures

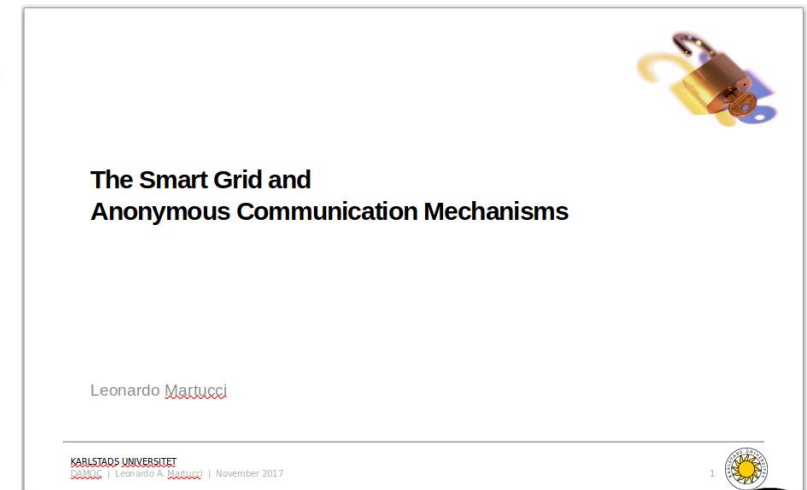
- Data Anonymization
 - k-anonymity, Diff Privacy
- Anonymous communication
 - DC net, MIXes, Tor

Slides + Videos + Literature



Results: Training

- Teaching Staff Training @  CPUT
 - 8 staff members: SU, UP
UDSM
- Security, Privacy in the Smart Grid
- Nov 2017
 - 3 weeks of planned activities
 - + 1 week



Training at

- 3-week training activity:

- An overview of course modules

- Security Design Principles
 - Risk analysis
 - Software Security
 - Crypto
 - Privacy

+ invited talks from guest lectures
and other KAU researchers

- Course / curricula planning aspects

- Social activities



Results: Quality Plan

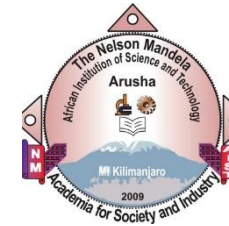
- Discussion and development of a quality assessment criteria
- Establishment of an internal quality reporting procedure
 - 4 internal reports
 - 2017 Q4
 - 2018 Q2
 - 2018 Q3-Q4
 - 2019 Jan-Aug
- Establishment of an IAB)
 - Prof. Lambert-Torres (keynote)
 - Prof. Yngström (Stockholm U.)
 - Mr. Dierks (Alectrix, SA)
 - Prof. Mwinyiwiwa (UDSM)
- Feedback on modules & curricula



Results: Student Feedback

- Students enrolled
 - 5 open ended questions
 - Respondents

| | |
|---|-----------|
| [| CPUT: 5 |
| | NMAIST: 3 |
| | SU: 2 |
 - Students exiting
 - 6 open ended questions
 - Respondents: 1 CPUT, 2 SU
- + individual course evaluations:
- UP: 3 courses
 - 11 questions: 1-5 likert scale
 - 90%+ positive answers



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