

First ACM Conference on Wireless Security (WiSec)

March 31 – April 2, 2008

Alexandria, VA, USA

Tentative Schedule

Day 1 – March 31 (Monday)

9:00 am – 9:05 am Opening Remarks

V. Gligor, J.-P. Hubaux, and R. Pooveendran

9:05 am – 10:05 am Keynote Talk 1

RFID Security: In the Shoulder and on the Loading Dock
Ari Juels (RSA Labs)

10:05 am – 10:30 am Coffee Break

10:30 am – 12:00 pm Session 1: Authentication in Wireless Networks

- 10:30 – 11:00 [Pre-Authentication Filters: Providing DoS Resistance for Signature-Based Broadcast Authentication in Wireless Sensor Networks](#)
Qi Dong, Donggang Liu (University of Texas at Arlington, USA), Peng Ning (North Carolina State University, USA)
- 11:00 – 11:30 [Defending against False-Endorsement-based DoS Attacks in Wireless Sensor Networks](#)
Christoph Krauß (TU-Darmstadt, DE); Markus Schneider (Fraunhofer SIT, DE); Claudia Eckert (TU Darmstadt, DE)
- 11:30 – 11:45 [Wireless Authentication using Remote Passwords \(short paper\)](#)
Andrew Harding, Timothy van der Horst, Kent Seamons (Brigham Young University, USA)
- 11:45 – 12:00 [Comparison of Innovative Signature Algorithms \(short paper\)](#)
Axel Poschmann, Benedikt Driessen (Ruhr-University Bochum, DE)

12:00 pm – 1:30 pm Lunch Break

1:30 pm – 3:00 pm Session 2: Device Identification and Privacy

- 1:30 pm – 2:00 pm [Wireless Client Puzzles in IEEE 802.11 Networks: Security by Wireless](#)
Ivan Martinovic, Frank A. Zdarsky, Matthias Wilhelm, Christian Wegman, Jens B. Schmitt (University of Kaiserslautern, DE)
- 2:00 pm – 2:30 pm [Identifying Unique Devices through Wireless Fingerprinting](#)
Desmond Loh (National University of Singapore, SG); Chia Yuan Cho, Chung Pheng Tan, Ri Seng Lee (DSO National Laboratories, SG)

- 2:30 pm – 2:45 pm [Active Behavioral Fingerprinting of Wireless Devices \(short paper\)](#)
Sergey Bratus, Cory Cornelius, Daniel Peebles, David Kotz (Dartmouth College, USA)
- 2:45 pm – 3:00 pm [A Secure Privacy-Preserving Roaming Protocol Based on Hierarchical Identity-Based Encryption for Mobile Networks \(short paper\)](#)
Zhiguo Wan (Katholieke Universiteit Leuven, BE), Kui Ren (Illinois Institute of Technology, USA), Bart Preneel (Katholieke Universiteit Leuven, BE)

3:00 pm – 3:30 pm Coffee Break

3:30 pm – 5:00 pm Session 3: Sensor Network Security

- 3:30 pm – 4:00 pm [Efficient Integrity-Preserving Scheme for Hierarchical Sensor Aggregation](#)
Keith Frikken (Miami University, USA)
- 4:00 pm – 4:30 pm [Towards Event Source Unobservability with Minimum Network Traffic in Sensor Networks](#)
Yi Yang, Min Shao, Sencun Zhu, Bhuvan Urgaonkar, Guohong Cao (Pennsylvania State University, USA)
- 4:30 pm – 5:00 pm [Mitigating Coordinate Attacks against Virtual Coordinate Based Routing in Wireless Sensor Networks](#)
Jing Dong, Kurt Ackermann, Brett Bavar, Cristina Nita-Rotaru (Purdue University, USA)

Day 2 – April 1 (Tuesday)

8:30 am – 10:00 am Session 4: Key Management

- 8:30 – 9:00 Key Management and Secure Software Updates in Wireless Process Control Environments
Dennis Nilsson (Chalmers University of Technology, SE), Tanya Roosta (University of California at Berkeley, USA), Ulf Lindqvist, Alfonso Valdes (SRI International, USA)
- 9:00 – 9:30 Slide: A Domain-Specific Verification Framework for Sensor Network
Youssef Hanna, Hridesh Rajan, Wensheng Zhang (Iowa State University, USA)
- 9:30 – 9:45 Minimum Node Degree and k-connectivity for Key Predistribution Schemes and Distributed Sensor Networks (short paper)
Jiang Wu, Doug Stinson (University Waterloo, Canada)
- 9:45 – 10:00 Mind Your Manners: Socially Appropriate Wireless Key Establishment for Groups (short paper)
Cynthia Kuo, Ahren Studer, Adrian Perrig (Carnegie Mellon University, USA)

10:00 am – 10:30 am Coffee Break

10:30 am – 12:00 pm Session 5: RFID and Embedded Sensors

- 10:30 – 11:00 Wireless and Physical Security via Embedded Sensor Networks
Michael Ocean, Azer Bestavros (Boston University, USA)
- 11:00 – 11:30 RFID Authentication Protocol for Low-cost Tags
BoYeon Song, Chris Mitchell (Royal Holloway, University of London, UK)
- 11:30 – 11:45 Body Sensor Network Security: An Identity-Based Cryptography Approach (short paper)
Chiu Tan, Haodong Wang (College of William and Mary, USA), Sheng Zhong (SUNY Buffalo, USA), Qun Li (College of William and Mary, USA)
- 11:45 – 12:00 Self-certified Sybil-Free Pseudonyms: Introducing Privacy in Infrastructureless Wireless Networks (short paper)
Leonardo Martucci (Karlstad University, SE), Markulf Kohlweiss (KU Leuven, BE), Christer Andersson (Karlstad University, SE), Andriy Panchenko (RWTH Aachen, DE)

12:00 pm – 1:30 pm Lunch Break

1:30 pm – 3:00 pm Panel

RFID Security and Privacy: Long-term Research or Short-term Tinkering?

- Gene Tsudik (Chair, University of California at Irvine, USA)
Roberto Di Pietro (Universita' di Roma Tre, Italy)
David Molnar (University of California at Berkeley, USA)
Mike Burmester (Florida State University, USA)
Alfred Kobsa (University of California at Irvine, USA)

3:00 pm – 3:30 pm Coffee Break

3:30 pm – 5:00 pm

Session 6: Multi-hop Applications and Mal-packets

3:30 pm – 4:00 pm

[A Secure and Resilient WSN Roadside Architecture for Intelligent Transport Systems](#)
Jens-Matthias Bohli, Alban Hessler, Osman Ugus, Dirk Westhoff (NEC Europe Ltd., DE)

4:00 pm – 4:30 pm

[Towards Self-propagate Mal-packets in Sensor Networks](#)
Qijun Gu, Rizwan Noorani (Texas State University at San Marco, USA)

4:30 pm – 5:00 pm

[Secure Multi-hop Network Programming with Multiple One-way Hash Chains](#)
Hailun Tan, Sanjay Jha (University of New South Wales, AU), Diet Ostry, John Zic (CSIRO, AU), Vijay Sivaraman (University of New South Wales, AU)

Day 3 – April 2 (Wednesday)

9:00 am – 10:00 am Keynote Talk 2

Synchronizing clocks over wireless networks
P. R. Kumar (University of Illinois Urbana Champaign)

10:00 am – 10:30 am Coffee Break

10:30 am – 12:00 pm Session 7: Defensive Techniques

10:30 am – 11:00 am [Attacks on `Time-of-Flight' Distance Bounding Channels](#)
Gerhard Hancke (Royal Holloway, University of London, UK) Markus G. Kuhn (University of Cambridge, UK)

11:00 am – 11:30 pm [Anti-jamming Timing Channels for Wireless Networks](#)
Wenyuan Xu (University of South Carolina, USA), Wade Trappe, Yanyong Zhang (WINLAB, Rutgers University, USA)

11:30 pm – 11:45 pm [Emergent Properties: Detection of the Node-capture Attack in Mobile Wireless Sensor Networks \(short paper\)](#)
Mauro Conti (Universita' di Roma La Sapienza, IT), Roberto Di Pietro (Università di Roma Tre, IT), Luigi Mancini (Universita' di Roma "La Sapienza", IT), Alessandro Mei (Sapienza University of Rome, IT)

11:45 pm – 12:00 pm [Simple and Effective Defense Against Evil Twin Access Points \(short paper\)](#)
Volker Roth, Wolfgang Polak, Eleanor Rieffel, Thea Turner (Fuji-Xerox Palo Alto Laboratory, USA)

12:00pm **END OF EVENT**