COLLEGE OF COMPUTING
Prince of Songkla University Phuket Campus

PSU · PRINCE OF SONGKLA UNIVERSITY

PERSONAL DATA

Name : Dr. Norrathep Rattanavipanon

Position : Assistant Professor

Email : norrathep.r@phuket.psu.ac.th

Phone : 076276977

Website : https://www.norrathep.com/

ORCID : 0000-0003-1192-5079

SCOPUS ID : 57194776707

EDUCATION

Ph.D. Degree	2019	University of California, Irvine
Master Degree	2015	University of California, Irvine
Bachelor Degree	2013	University of Michigan -- Ann Arbor

RESEARCH INTERESTS

Embedded Systems Security

Formal Verification

Network Security

Applied Cryptography

Binary Analysis

RESEARCH PROJECTS

Present:

1) Embedded Systems and IoT Security

2) Legacy Cryptographic Binaries

Past:

1) Attacks on Intellectual Property Rights

2) Android-based Free Web Proxy discovery

TEACHING

• Object-oriented Programming, 2020-2021

• Information Technology for International Organization, 2021

• Computer Security, 2020

• Computer: The Internet & Society, 2020

INTERNATIONAL JOURNAL ARTICLES

Ivan De Oliveira Nunes, Sashidhar Jakkamsetti, Norrathep Rattanavipanon, and Gene Tsudik, Towards remotely verifiable software integrity in resource-constrained IoT devices, IEEE Communications Magazine, Volume 62, Issue 7, 2024.

📅 *7/2024*

Norrathep Rattanavipanon, Donlapark Ponnoprat, Hideya Ochiai, Kuljaree Tantayakul, Touchai Angchuan, and Sinchai Kamolphiwong, Detecting Anomalous LAN Activities under Differential Privacy, Hindawi Security and Communication Networks, 2022.

📅 *4/2022*

N. Asokan, Thomas Nyman, *Norrathep Rattanavipanon*, Ahmad-Reza Sadeghi, and Gene Tsudik, ASSURED: Architecture for Secure Software Update of Realistic Embedded Devices, IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems (TCAD), Volume 37, Issue 11, 2018.

📅 *11/2018*

Xavier Carpent, Norrathep Rattanavipanon, and Gene Tsudik. Remote Attestation via Self-Measurement, ACM Transactions on Design Automation of Electronic Systems (TODAES), Volume 24, Issue 1, 2018.

📅 *1/2018*

INTERNATIONAL PROCEEDINGS

Adam Caulfield, Norrathep Rattanavipanon, and Ivan De Oliveira Nunes, ASAP: Reconciling Asynchronous Real-Time Operations and Proofs of Execution in Simple Embedded Systems, DAC, 2022.

📅 *7/2022*

Nattawat Songsom, Warodom Werapun, Jakapan Suaboot, and Norrathep Rattanavipanon, The SWC-based Security Analysis Tool for Smart Contract Vulnerability Detection, INCIT, 2022.

📅 *10/2022*

Norrathep Rattanavipanon, Donlapark Ponnoprat, Hideya Ochiai, Kuljaree Tantayakul, Touchai Angchuan, and Sinchai Kamolphiwong, Releasing ARP Data with Differential Privacy Guarantees For LAN Anomaly Detection, ECTI-CON 2021.

📅 *5/2021*

Ivan De Oliveira Nunes, Sashidhar Jakkamsetti, Norrathep Rattanavipanon, and Gene Tsudik, On the TOCTOU Problem in Remote Attestation, CCS, 2021.

📅 *11/2021*

Ivan De Oliveira Nunes, Karim Eldefrawy, *Norrathep Rattanavipanon*, and Gene Tsudik, APEX: A Verified Architecture for Proofs of Execution on Remote Devices Under Full Software Compromise, USENIX Security, 2020.

📅 *8/2020*

Karim Eldefrawy, Michael Locasto, *Norrathep Rattanavipanon*, and Hassen Saidi, Towards Automated Augmentation and Instrumentation of Legacy Cryptographic Executables, Applied Cryptography and Network Security (ACNS), 2020.

📅 *10/2020*

Ivan De Oliveira Nunes, Karim Eldefrawy, *Norrathep Rattanavipanon*, and Gene Tsudik, PURE: Using Verified Remote Attestation to Obtain Proofs of Update, Reset and Erasure in Low-End Embedded Systems, IEEE/ACM ICCAD, 2019.

📅 *10/2019*

Ivan De Oliveira Nunes, Karim Eldefrawy, *Norrathep Rattanavipanon*, Michael Steiner, and Gene Tsudik, VRASED: A Verified Hardware/Software Co-Design for Remote Attestation, in USENIX Security, 2019.

📅 *8/2019*

Ivan De Oliveira Nunes, Ghada Dessouky, Ahmad Ibrahim, *Norrathep Rattanavipanon*, Ahmad-Reza Sadeghi and Gene Tsudik, Towards Systematic Design of Collective Remote Attestation Protocols IEEE ICDCS, 2019.

📅 *6/2019*

N. Asokan, Thomas Nyman, *Norrathep Rattanavipanon*, Ahmad-Reza Sadeghi, and Gene Tsudik, ASSURED: Architecture for Secure Software Update of Realistic Embedded Devices, EMSOFT, 2018.

📅 *8/2018*

Xavier Carpent, Karim Eldefrawy, *Norrathep Rattanavipanon*, Ahmad-Reza Sadeghi, and Gene Tsudik, Invited: Reconciling Remote Attestation and Safety-Critical Operation on Simple IoT Devices, DAC, 2018.

📅 *8/2018*

Xavier Carpent, Karim Eldefrawy, *Norrathep Rattanavipanon*, and Gene Tsudik, Temporal Consistency of Integrity-Ensuring Computations and Applications to Embedded Systems Security, ACM ASIACCS, 2018.

📅 *5/2018*

Xavier Carpent, *Norrathep Rattanavipanon*, and Gene Tsudik, Remote Attestation of IoT Devices via SMARM: Shuffled Measurements Against Roving Malware, IEEE HOST, 2018.

📅 *4/2018*

Xavier Carpent, *Norrathep Rattanavipanon*, and Gene Tsudik, ERASMUS: Efficient Remote Attestation via Self-Measurement for Unattended Settings, DATE, 2018.

📅 *4/2018*

Karim ElDefrawy, *Norrathep Rattanavipanon* and Gene Tsudik, HYDRA: HYbrid Design for Remote Attestation (Using a Formally Verified Microkernel), ACM WiSEC 2017.

Xavier Carpent, Karim ElDefrawy, *Norrathep Rattanavipanon*, and Gene Tsudik, [LIghtweight Swarm Attestation: A Tale of Two LISAs](), ACM ASIACCS, 2017.

📅 *4/2017*

RESEARCH GRANTS

Securing Remote Attestation Against Time-of-Check Time-of-Use (TOCTOU) Attacks in Embedded/IoT Devices (การป้องกันปัญหา TOCTOU ในระบบการยืนยันระยะไกลของอุปกรณ์ฝังตัว)

: 250,000 baht funded by Young Research Grant (ทุนนักวิจัยใหม่ ว.ท.), 2021

📅 *2021*

Scan Me !! CV Online

COLLEGE OF COMPUTING

Prince of Songkla University Phuket Campus

80 M.1 Vichitsongkram Road Kathu, Phuket 83120

Email : coc@phuket.psu.ac.th

Website : [computing.psu.ac.th]()