

## Publications

Prof. N. Asokan**A Peer-reviewed scientific articles****A1 Journal article (refereed), original research**

1. Michael Wrana, Diogo Barradas, **N. Asokan**: The Spectre of Surveillance and Censorship in Future Internet Architectures, Proc. Priv. Enhancing Technol. (PoPETs), 2025 (2): 494-511. <https://doi.org/10.56553/popets-2025-0073>
2. Owura Asare, Meiyappan Nagappan, **N. Asokan**: Is GitHub's Copilot as Bad As Humans at Introducing Vulnerabilities in Code? Empirical Software Engineering 28:6 129 (2023) <https://doi.org/10.1007/s10664-023-10380-1>
3. Sebastian Szyller, Rui Zhang, Jian Liu, **N. Asokan**: On the Robustness of Dataset Inference. Trans. Mach. Learn. Res. 2023 (2023) <https://openreview.net/forum?id=LKz5SqIXPJ>
4. Jian Liu, Peilun Li, Raymond Cheng, **N. Asokan**, Dawn Song: Parallel and Asynchronous Smart Contract Execution. IEEE Trans. Parallel Distributed Syst. 33(5): 1097-1108 (2022) <https://doi.org/10.1109/TPDS.2021.3095234>
5. Long Cheng, Salman Ahmed, Hans Liljestrand, Thomas Nyman, Haipeng Cai, Trent Jaeger, **N. Asokan**, Danfeng (Daphne) Yao: Exploitation Techniques for Data-oriented Attacks with Existing and Potential Defense Approaches. ACM Trans. Priv. Secur. 24(4): 26:1-26:36 (2021) <https://doi.org/10.1145/3462699>
6. Mohammad Mannan, **N. Asokan**: Confronting the Limitations of Hardware-Assisted Security. IEEE Secur. Priv. 18(5): 6-7 (2020) <https://doi.org/10.1109/MSEC.2020.3015413>
7. Tommi Gröndahl, **N. Asokan**: Effective writing style transfer via combinatorial paraphrasing. Proc. Priv. Enhancing Technol. 2020(4): 175-195 (2020) <https://doi.org/10.2478/popets-2020-0068>
8. Tommi Gröndahl, **N. Asokan**: Text Analysis in Adversarial Settings: Does Deception Leave a Stylistic Trace?, ACM Computing Surveys (2019). <https://doi.org/10.1145/3310331>
9. Lachlan Gunn, Ricardo Vieitez Parra, **N. Asokan**: Circumventing Cryptographic Deniability with Remote Attestation, Proc. Priv. Enhancing Technol. (PoPETs), 2019(3):350-369, <https://doi.org/10.2478/popets-2019-0051>
10. Samuel Marchal, Markus Miettinen, Thien Duc Nguyen, Ahmad-Reza Sadeghi, **N. Asokan**: AUDI: Toward Autonomous IoT Device-Type Identification Using Periodic Communication. IEEE JSAC 37(6):1402-1412 (2019), <https://doi.org/10.1109/JSAC.2019.2904364>
11. Jian Liu, Wenting Li, Ghassan O. Karame, **N. Asokan**: Scalable Byzantine Consensus via Hardware-Assisted Secret Sharing. IEEE Trans. Computers 68(1): 139-151 (2019), **IEEE Trans. Computers Best Paper Award for 2019** <https://doi.org/10.1109/TC.2018.2860009>
12. Babins Shrestha, Nitesh Saxena, Hien Thi Thu Truong, **N. Asokan**: Sensor-based Proximity Detection in the Face of Active Adversaries, IEEE Transactions on Mobile Computing (TMC), 18(2): 444-457 (2019), <https://doi.org/10.1109/TMC.2018.2839604>

13. Ágnes Kiss, Masoud Naderpour, Jian Liu, **N. Asokan**, Thomas Schneider: SoK: Modular and Efficient Private Decision Tree Evaluation, Proc. Priv. Enhancing Technol. (PoPETs), 2019(2):187-208, <https://doi.org/10.2478/popets-2019-0026>
14. Markus Miettinen, **N. Asokan**: Ad-hoc key agreement: A brief history and the challenges ahead, Computer Communications, 131:32-34, 2018. <https://doi.org/10.1016/j.comcom.2018.07.030>
15. Elena Reshetova, Hans Liljestrand, Andrew Paverd, **N. Asokan**: Towards Linux Kernel Memory Safety, Software Practice and Experience, 48(12):2237-2256, 2018. <https://doi.org/10.1002/spe.2638>
16. **N. Asokan**, Thomas Nyman, Norrathep Rattanavipanon, Ahmad-Reza Sadeghi, Gene Tsudik: ASSURED: Architecture for Secure Software Update of Realistic Embedded Devices, IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems (TCAD), 37(11): 2290-2300 (2018). <https://doi.org/10.1109/TCAD.2018.2858422>
17. Jian Liu, Wenting Li, Ghassan Karame, **N. Asokan**: Toward fairness of cryptocurrency payments, IEEE Security & Privacy, May/June (2018), 16(3): 81-89 (2018) <http://doi.ieeecomputersociety.org/10.1109/MSP.2018.2701163>
18. Andrew Paverd, Sandeep Tamrakar, Hoang Long Nguyen, Praveen Pendyala, Thien Duc Nguyen, Elizabeth Stobert, Tommi Gröndahl, **N. Asokan**, Ahmad-Reza Sadeghi: OmniShare: Encrypted Cloud Storage for the Multi-Device Era, IEEE Internet Computing 22(4): 27-36 (2018). <http://dx.doi.org/10.1109/MIC.2018.182130646>
19. Ágnes Kiss, Jian Liu, Thomas Schneider, **N. Asokan**, Benny Pinkas: Private Set Intersection for Unequal Set Sizes with Mobile Applications, Proceedings on Privacy Enhancing Technologies (PoPETs), 2017(4):97-117, <https://doi.org/10.1515/popets-2017-0044>
20. Samuel Marchal, Giovanni Armano, Tommi Gröndahl, Kalle Saari, Nidhi Singh, **N. Asokan**: Off-the-Hook: An Efficient and Usable Client-Side Phishing Prevention Application. IEEE Transactions on Computers, 66(10):1717-1733, (2017) <https://doi.org/10.1109/TC.2017.2703808>
21. Tooska Dargahi, Moreno Ambrosin, Mauro Conti, **N. Asokan**: ABAKA: A novel attribute-based k-anonymous collaborative solution for LBSs. Computer Communications 85: 1-13 (2016). <http://dx.doi.org/10.1016/j.comcom.2016.03.002>
22. Hien Thi Thu Truong, Xiang Gao, Babins Shrestha, Nitesh Saxena, **N. Asokan**, Petteri Nurmi: Using contextual co-presence to strengthen Zero-Interaction Authentication: Design, integration and usability. Pervasive and Mobile Computing, Volume 16, Part B, January 2015, Pages 187–204. <http://dx.doi.org/10.1016/j.pmcj.2014.10.005>
23. **N. Asokan**, Jan-Erik Ekberg, Kari Kostiaainen, Anand Rajan, Carlos V. Rozas, Ahmad-Reza Sadeghi, Steffen Schulz, Christian Wachsmann: Mobile Trusted Computing. Proceedings of the IEEE 102(8): 1189-1206 (2014). <http://dx.doi.org/10.1109/JPROC.2014.2332007>
24. Jan-Erik Ekberg, Kari Kostiaainen, **N. Asokan**: The Untapped Potential of Trusted Execution Environments on Mobile Devices, IEEE Security & Privacy Magazine, 12(4): 29-37 (2014). <http://dx.doi.org/10.1109/MSP.2014.38>
25. Nitesh Saxena, Jan-Erik Ekberg, Kari Kostiaainen, **N. Asokan**: Secure Device Pairing based on a Visual Channel, IEEE Trans. Information Forensics and Security 6(1):28-38. 2011. <http://dx.doi.org/10.1109/TIFS.2010.2096217>
26. John Solis, **N. Asokan**, Kari Kostiaainen, Philip Ginzboorg, Jörg Ott: Controlling Resource Hogs in Delay-Tolerant Networks, Computer Communications, 33:1, 2-10, 2010. <http://dx.doi.org/10.1016/j.comcom.2009.07.019>

27. Jani Suomalainen, Jukka Valkonen, **N. Asokan**: Standards for Security Associations in Personal Networks: A Comparative Analysis, International Journal of Security and Networks (IJSN), special issue on Secure Spontaneous Interaction, 2009. <http://dx.doi.org/10.1504/IJSN.2009.023428>
28. Philip Ginzboorg, **N. Asokan**: Key Agreement in Ad-hoc Networks, Computer Communications, Special issue on security, 23 (2000):1627-1637, 2000. [http://dx.doi.org/10.1016/S0140-3664\(00\)00249-8](http://dx.doi.org/10.1016/S0140-3664(00)00249-8)
29. **N. Asokan**, Hervé Debar, Michael Steiner, Michael Waidner: Authenticating Public Terminals, Computer Networks, 31(8):861-870, May 1999. [http://dx.doi.org/10.1016/S1389-1286\(98\)00020-6](http://dx.doi.org/10.1016/S1389-1286(98)00020-6)
30. Günter Karjoth, **N. Asokan**, Ceki Gülcü: Protecting the Computation Results of Free-roaming Agents, Personal Ubiquitous Computing, 2(2):92-99, December 1998. <http://dx.doi.org/10.1007/BF01324939>
31. **N. Asokan**, Victor Shoup, Michael Waidner: Optimistic Fair Exchange of Digital Signatures, IEEE Journal on Selected Areas in Communications, 18(4):593-610, April 2000. <http://dx.doi.org/10.1109/49.839935>
32. J. L. Abad-Peiro, **N. Asokan**, Michael Steiner, Michael Waidner: Designing a Generic Payment Service, IBM Systems Journal, 37(1):72-88, January 1998. <http://dx.doi.org/10.1147/sj.371.0072>
33. **N. Asokan**, Gene Tsudik, Michael Waidner: Server-supported Signatures. Journal of Computer Security, 5(1):91-108, 1997. <http://dx.doi.org/10.3233/JCS-1997-5105>

## A2 Review article, Literature review, Systematic review

34. **N. Asokan**, Phil Janson, Michael Steiner, Michael Waidner: State of the Art in Electronic Payment Systems, IEEE Computer, 30(9):28-35, September 1997. <http://doi.ieeecomputersociety.org/10.1109/2.612244>: Translation: (in Japanese) Nikkei Computer, pages 195-201, issue of March 30, 1998.

## A3 Book section, chapters in research books

35. **N. Asokan**, Kaisa Nyberg: Security Associations for Personal Devices, (**Invited** book chapter) in S. Gritzalis et al. (Editors), "Security and Privacy in Wireless and Mobile Networking", (preprint at <http://research.ics.tkk.fi/publications/knyberg/secass.pdf>), Troubador Publishing, 2008, ISBN 978-1905886-906, [http://www.troubador.co.uk/book\\_info.asp?bookid=428](http://www.troubador.co.uk/book_info.asp?bookid=428)
36. **N. Asokan**, Matthias Schunter: Optimistic Fair Exchange (**Invited** book chapter) in H. Raghav Rao and Shambhu Upadhyay (editors), Information Assurance, Security and Privacy Services, Emerald Group Publishing Ltd., May 2009, pages 365-390. <https://books.google.com/books?isbn=1848551940>
37. **N. Asokan**, Jan-Erik Ekberg: Mobile Digital Rights Management (book chapter) in Professional MITA – Visions and Implementations, edited by Nokia, IT Press, 2002.
38. **N. Asokan**, Phil Janson, Michael Steiner, Michael Waidner: State of the Art in Electronic Payment Systems, (**Invited** book chapter) in Advances in Computers, Vol. 53, pages 425-449, Edited by Marvin. V. Zelkowitz, Academic Press, March 2000. [http://dx.doi.org/10.1016/S0065-2458\(00\)80009-1](http://dx.doi.org/10.1016/S0065-2458(00)80009-1)

## A4 Conference proceedings

1. Anudeep Das, Vasisht Duddu, Rui Zhang, **N. Asokan**: Espresso: Robust Concept Filtering in Text-to-Image Models. (to appear in) CODASPY 2025.

2. Vasisht Duddu, Oskari Järvinen, Lachlan J. Gunn, **N. Asokan**: Laminator: Verifiable ML Property Cards using Hardware-assisted Attestations. (to appear in) CODASPY 2025.
3. Ruizhe Wang , Meng Xu , **N. Asokan**: SeMalloc: Semantics-Informed Memory Allocator. CCS 2024: 1375-1389 <https://doi.org/10.1145/3658644.3670363>
4. Ruizhe Wang, Meng Xu, **N. Asokan**: S2malloc: Statistically Secure Allocator for Use-After-Free Protection and More. DIMVA 2024: 23-43. [https://doi.org/10.1007/978-3-031-64171-8\\_2](https://doi.org/10.1007/978-3-031-64171-8_2)
5. Hossam ElAtali, Xiaohu Duan, Hans Liljestrand, Meng Xu, **N. Asokan**: BliMe Linter. SecDev 2024: 46-53. <https://doi.org/10.1109/SecDev61143.2024.00011>
6. Jian Liu, Rui Zhang, Sebastian Szyller, Kui Ren, **N. Asokan**: False Claims against Model Ownership Resolution. USENIX Security Symposium 2024. <https://www.usenix.org/conference/usenixsecurity24/presentation/liu-jian>
7. Hossam ElAtali, John Z. Jekel, Lachlan J. Gunn, **N. Asokan**: Data-Oblivious ML Accelerators using Hardware Security Extensions. HOST 2024: 373-377. <https://doi.org/10.1109/HOST55342.2024.10545398>
8. Vasisht Duddu, Anudeep Das, Nora Khayata, Hossein Yalame, Thomas Schneider, **N. Asokan**: Attesting Distributional Properties of Training Data for Machine Learning. ESORICS (1) 2024: 3-23. [https://doi.org/10.1007/978-3-031-70879-4\\_1](https://doi.org/10.1007/978-3-031-70879-4_1)
9. Vasisht Duddu, Sebastian Szyller, **N. Asokan**: SoK: Unintended Interactions among Machine Learning Defenses and Risks. IEEE Symposium on Security & Privacy, May 2024: 2996-3014, **Distinguished Paper Award**. <https://doi.org/10.1109/SP54263.2024.00243>
10. Owura Asare, Meiyappan Nagappan, **N. Asokan**: Copilot Security: A User Study. ICSE 2024: 158:1-158:11. <https://doi.org/10.1145/3597503.3639154>
11. Hossam ElAtali, Lachlan J. Gunn, Hans Liljestrand, **N. Asokan**: BliMe: Verifiably Secure Outsourced Computation with Hardware-Enforced Taint Tracking. NDSS 2024. <https://www.ndss-symposium.org/ndss-paper/blime-verifiably-secure-outsourced-computation-with-hardware-enforced-taint-tracking/>
12. Asim Waheed, Vasisht Duddu, **N. Asokan**: GroVe: Ownership Verification of Graph Neural Networks using Embeddings. IEEE Symposium on Security & Privacy, May 2024. <https://doi.org/10.1109/SP54263.2024.00050>
13. Buse G. A. Tekgul, **N. Asokan**: FLARE: Fingerprinting Deep Reinforcement Learning Agents using Universal Adversarial Masks. ACSAC 2023: 492-505. <https://doi.org/10.1145/3627106.3627128>
14. Salman Ahmed, Hans Liljestrand, Hani Jamjoom, Matthew Hicks, **N. Asokan**, Danfeng Yao: Not All Data are Created Equal: Data and Pointer Prioritization for Scalable Protection Against Data-Oriented Attacks. USENIX Security Symposium 2023: 1433-1450. <https://www.usenix.org/conference/usenixsecurity23/presentation/ahmed-salman>
15. Parjanya Vyas, Asim Waheed, Yousra Aafer, **N. Asokan**: Auditing Framework APIs via Inferred App-side Security Specifications. USENIX Security Symposium 2023: 6061-6077. <https://www.usenix.org/conference/usenixsecurity23/presentation/vyas>
16. Sebastian Szyller, **N. Asokan**: Conflicting Interactions Among Protections Mechanisms for Machine Learning Models. AAAI 2023: 15179-15187. <https://ojs.aaai.org/index.php/AAAI/article/view/26771>

17. Setareh Ghorshi, Lachlan J. Gunn, Hans Liljestrand, **N. Asokan**: Towards cryptographically-authenticated in-memory data structures. In SecDev 2022: 30-44.  
<https://doi.org/10.1109/SecDev53368.2022.00018>
18. Buse G. A. Tekgul, Shelly Wang, Samuel Marchal, **N. Asokan**: Real-Time Adversarial Perturbations Against Deep Reinforcement Learning Policies: Attacks and Defenses. ESORICS (3) 2022: 384-404. [https://doi.org/10.1007/978-3-031-17143-7\\_19](https://doi.org/10.1007/978-3-031-17143-7_19)
19. Buse Gul Atli Tekgul, **N. Asokan**: On the Effectiveness of Dataset Watermarking. IWSPA@CODASPY 2022: 93-99. <https://doi.org/10.1145/3510548.3519376>
20. Sebastian Szyller, Buse Gul Atli, Samuel Marchal, **N. Asokan**: DAWN: Dynamic Adversarial Watermarking of Neural Networks. ACM Multimedia 2021: 4417-4425.  
<https://doi.org/10.1145/3474085.3475591>
21. Buse Gul Atli, Yuxi Xia, Samuel Marchal, **N. Asokan**: WAFFLE: Watermarking in Federated Learning, In Proceedings of the 40th International Symposium on Reliable Distributed Systems (SRDS), 2021: 310-320. <https://doi.org/10.1109/SRDS53918.2021.00038>
22. Logan Blue, Samuel Marchal, Patrick Traynor, **N. Asokan**: Lux: Enabling Ephemeral Authorization for Display-Limited IoT Devices. IoTDI 2021: 15-27. <https://doi.org/10.1145/3450268.3453530>
23. Hans Liljestrand, Thomas Nyman, Lachlan J. Gunn, Jan-Erik Ekberg, **N. Asokan**: PACStack: an Authenticated Call Stack. in Usenix Security Symposium, 2021: 357-374.  
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24. Buse Atli, Sebastian Szyller, Mika Juuti, Samuel Marchal, **N. Asokan**: Extraction of complex DNN models: Real threat or boogeyman? Third International Workshop on Engineering Dependable and Secure Machine Learning Systems (EDSMLS) 2020, Communications in Computer and Information Science, vol 1272. Springer, Cham. [https://doi.org/10.1007/978-3-030-62144-5\\_4](https://doi.org/10.1007/978-3-030-62144-5_4)
25. Mika Juuti, Tommi Gröndahl, Adrian Flanagan, **N. Asokan**: A little goes a long way: Improving toxic language classification despite data scarcity. Findings of ACL: EMNLP 2020  
<https://www.aclweb.org/anthology/2020.findings-emnlp.269/>
26. Hans Liljestrand, Zaheer Gauhar, Thomas Nyman, Jan-Erik Ekberg, **N. Asokan**: Protecting the stack with PACed canaries, In SysTEX 2019. <https://doi.org/10.1145/3342559.3365336>
27. Hien Thi Thu Truong, Juhani Toivonen, Thien Duc Nguyen, Claudio Soriente, Sasu Tarkoma, **N. Asokan**: DoubleEcho: Mitigating Context-Manipulation Attacks in Copresence Verification. PerCom 2019: 1-9, <https://doi.org/10.1109/PERCOM.2019.8767404>
28. Andrew Paverd, Marcus Völp, Ferdinand Brasser, Matthias Schunter, **N. Asokan**, Ahmad-Reza Sadeghi, Paulo Jorge Esteves Veríssimo, Andreas Steininger, Thorsten Holz: Sustainable Security & Safety: Challenges and Opportunities. CERTS 2019: 4:1-4:13  
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32. Hans Liljestrand, Thomas Nyman, Kui Wang, Carlos Chinae Perez, Jan-Erik Ekberg, **N. Asokan**: PAC it up: Towards Pointer Integrity using ARM Pointer Authentication, Usenix Security Conference, 2019. <https://www.usenix.org/conference/usenixsecurity19/presentation/liljestrand>
33. Thien Duc Nguyen, Samuel Marchal, Markus Miettinen, Hossein Fereidooni, **N. Asokan**, Ahmad-Reza Sadeghi: DiOT: A Federated Self-learning Anomaly Detection System for IoT, IEEE ICDCS 2019:756-767, <https://doi.org/10.1109/ICDCS.2019.00080>
34. Hans Liljestrand, Thomas Nyman, Jan-Erik Ekberg, **N. Asokan**: Authenticated Call Stack, DAC 2019 (poster), <https://doi.org/10.1145/3316781.3322469>
35. Thomas Nyman, Ghada Dessouky, Shaza Zeitouni, Aaro Lehtikainen, Andrew Paverd, Ahmad-Reza Sadeghi, **N. Asokan**: HardScope: Hardening Embedded Systems Against Data-Oriented Attacks, DAC 2019. <https://doi.org/10.1145/3316781.3317836>
36. Mika Juuti, Sebastian Szyller, Samuel Marchal, N. Asokan: PRADA: Protecting Against DNN Model Stealing Attacks, IEEE Euro S&P, 2019. <https://doi.org/10.1109/EuroSP.2019.00044>
37. Tommi Gröndahl, Luca Pajola, Mika Juuti, Mauro Conti, **N. Asokan**: All you need is “love”: Evading hate speech detection, AISec, 2018. <https://doi.org/10.1145/3270101.3270103>
38. Mika Juuti, Bo Sun, Tatsuya Mori and **N. Asokan**: Stay On-Topic: Generating Context-specific Fake Restaurant Reviews, European Symposium on Research in Computer Security (ESORICS), 2018. [https://doi.org/10.1007/978-3-319-99073-6\\_7](https://doi.org/10.1007/978-3-319-99073-6_7)
39. Samuel Marchal, **N. Asokan**: On Designing and Evaluating Phishing Webpage Detection Techniques for the Real World. CSET @ USENIX Security Symposium 2018, <https://www.usenix.org/conference/cset18/presentation/marchal>
40. A Kurnikov, A Paverd, M Mannan, **N Asokan**: Keys in the Clouds: Auditable Multi-device Access to Cryptographic Credentials, Workshop on Security, Privacy, Identity Management in the Cloud (SECPID). 2018. <http://doi.acm.org/10.1145/3230833.3234518>
41. Fritz Alder, Arseny Kurnikov, Andrew Paverd, **N. Asokan**: Migrating SGX Enclaves with Persistent State. Distributed Systems and Networks (DSN) 2018. <https://doi.org/10.1109/DSN.2018.00031>
42. Markus Miettinen, Thien Duc Nguyen, Ahmad-Reza Sadeghi, **N. Asokan**: Revisiting context-based authentication in IoT. DAC 2018: 32:1-32:6 <http://doi.acm.org/10.1145/3195970.3196106>
43. Chris Vaas, Mika Juuti, **N. Asokan**, Ivan Martinovic: Get in Line: Ongoing Co-Presence Verification of a Vehicle Formation Based on Driving Trajectories, IEEE Euro S&P, 2018. <https://doi.org/10.1109/EuroSP.2018.00022>
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45. Arseny Kurnikov, Klaudia Krawiecka, Andrew Paverd, Mohammad Mannan, **N. Asokan**: Using SafeKeeper to Protect Web Passwords. WWW (Companion Volume) 2018: 159-162, <http://doi.acm.org/10.1145/3184558.3186968>



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47. Jian Liu, Mika Juuti, Yao Lu, **N. Asokan**: Oblivious Neural Network Predictions via MiniONN Transformations. CCS 2017: 619-631, <http://doi.acm.org/10.1145/3133956.3134056>
48. Elena Reshetova, Filippo Bonazzi, **N. Asokan**: Randomization Can't Stop BPF JIT Spray. NSS 2017: 233-247, [https://doi.org/10.1007/978-3-319-64701-2\\_17](https://doi.org/10.1007/978-3-319-64701-2_17)
49. Thomas Nyman, Jan-Erik Ekberg, Lucas Davi, **N. Asokan**: CFI CaRE: Hardware-supported Call and Return Enforcement for Commercial Microcontrollers, in RAID 2017: 259-2847. [https://doi.org/10.1007/978-3-319-66332-6\\_12](https://doi.org/10.1007/978-3-319-66332-6_12)
50. Ghada Dessouky, Shaza Zeitouni, Thomas Nyman, Andrew Paverd, Lucas Davi, Patrick Koeberl, **N. Asokan**, Ahmad-Reza Sadeghi: LO-FAT: Low-Overhead Control Flow ATtestation in Hardware. DAC 2017: 24:1-24:6, <http://doi.acm.org/10.1145/3061639.3062276>
51. Radek Tomsu, Samuel Marchal, **N. Asokan**: Profiling Users by Modeling Web Transactions. IEEE ICDCS 2017: 2399-2404, Atlanta, GA, June 2017, <https://doi.org/10.1109/ICDCS.2017.164>
52. Markus Miettinen, Samuel Marchal, Ibbad Hafeez, Tommaso Frassetto, **N. Asokan**, Ahmad-Reza Sadeghi, Sasu Tarkoma: IoT Sentinel Demo: Automated Device-Type Identification for Security Enforcement in IoT. IEEE ICDCS 2017: 2511-2514, Atlanta, GA, June 2017, **Best Demo/Poster Award**. <https://doi.org/10.1109/ICDCS.2017.284>
53. Markus Miettinen, Samuel Marchal, Ibbad Hafeez, **N. Asokan**, Ahmad-Reza Sadeghi, Sasu Tarkoma: IoT SENTINEL: Automated Device-Type Identification for Security Enforcement in IoT. IEEE ICDCS 2017: 2177-2184, Atlanta, GA, June 2017, <https://doi.org/10.1109/ICDCS.2017.283>
54. Mika Juuti, Christian Vaas, Ivo Sluganovic, Hans Liljestrand, **N. Asokan**, Ivan Martinovic: STASH: Securing transparent authentication schemes using prover-side proximity verification. IEEE International Conference on Sensing, Communication and Networking (SECON), San Diego, CA, June 2017, <https://doi.org/10.1109/SAHCN.2017.7964922>
55. Sandeep Tamrakar, Jian Liu, Andrew Paverd, Jan-Erik Ekberg, Benny Pinkas, **N. Asokan**: The Circle Game: Scalable Private Membership Test Using Trusted Hardware. ACM Asia Conference on Computer and Communications Security (ACM ASIACCS), Abu Dhabi, UAE, April 2017, **Honorable Mention**. <https://doi.org/10.1145/3052973.3053006>
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## B Non-refereed scientific articles

### B1 Non-refereed journal articles

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### B2 Book section

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## D5 Textbook, professional manual or guide, dictionary

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## G Theses

### G1 Polytechnic thesis, Bachelor's thesis

108. **N. Asokan** and Pradeep Fatehpuria: A Multiprocessor Database System, Thesis for Bachelor of Technology (BTech) degree, Department of Computer Science and Engineering, Indian Institute of Technology, Kharagpur, India, May 1988.

### G4 Doctoral dissertation (monograph)

109. **N. Asokan**: Fairness in Electronic Commerce, Dissertation for Doctor of Philosophy (PhD) degree, Department of Computer Science, University of Waterloo, Canada, May 1998.  
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## H Patents and invention disclosures

**Granted Patents:** (Open [this link](#) for an up-to-date list of granted patents)

1. Method and device for verifying the integrity of platform software of an electronic device (US 11,126,710)
2. Method and system for byzantine fault-tolerance replicating of data (US 10,797,877)
3. Method and system for byzantine fault-tolerance replicating of data on a plurality of servers (US 10,664,353)
4. Implementation of an integrity-protected secure storage (US 10,565,400)
5. Method and device for verifying the integrity of platform software of an electronic device (US 10,482,238, 11,126,710)
6. Method and apparatus for identity based ticketing (US 10,374,799)
7. Method and system for byzantine fault-tolerance replicating of data on a plurality of servers (US 10,049,017)
8. Method and apparatus for accelerated authentication (US 9,979,545)
9. Method and apparatus for providing bootstrapping procedures in a communication network (US 9,906,528)
10. Method and device for verifying the integrity of platform software of an electronic device (US 9,881,150)
11. Device to device security using NAF key (US 9,781,085)
12. Mechanisms for certificate revocation status verification on constrained devices (US 9,756,036)
13. Method and apparatus for accelerated authentication (US 9,667,423)
14. Authenticating security parameters (US 9,503,462)
15. Method and device for verifying the integrity of platform software of an electronic device (US 9,438,608)
16. Method and apparatus for providing bootstrapping procedures in a communication network (US 9,300,641)
17. Implementation of an integrity-protected secure storage (US 9,171,187)
18. Method and apparatus to reset platform configuration register in mobile trusted module (US 9,087,198)
19. Methods and apparatus for reliable and privacy protecting identification of parties' mutual friends and common interests (US 9,003,486)



20. Method and device for verifying the integrity of platform software of an electronic device (US 8,954,738)
21. Method and apparatus for adjusting context-based factors for selecting a security policy (US 8,898,793)
22. Methods, apparatuses, and computer program products for bootstrapping device and user authentication (US 8,869,252)
23. Securing communication (US 8,769,284)
24. Credential provisioning (US 8,724,819)
25. Method, apparatus and computer program product for secure software installation (US 8,701,197)
26. Method and apparatus for selecting a security policy (US 8,621,656)
27. Method and apparatus to bind a key to a namespace (US 8,566,910)
28. Administration of wireless local area networks (US 8,532,304)
29. System and method for establishing bearer-independent and secure connections (US 8,484,466)
30. Requesting digital certificates (US 8,397,060)
31. Authenticated group key agreement in groups such as ad-hoc scenarios (US 8,386,782)
32. Methods, apparatuses, and computer program products for authentication of fragments using hash trees (US 8,352,737)
33. Secure data transfer (US 8,145,907)
34. Establishment of a trusted relationship between unknown communication parties (US 8,132,005)
35. Accessing protected data on network storage from multiple devices (US 8,059,818)
36. Method and system for managing cryptographic keys (EP1561299, US 7,920,706)
37. Address acquisition. (US 6,959,009, US 7,920,575)
38. Method for remote message attestation in a communication system (US 7,913,086)
39. Authenticating users (US 7,788,493)
40. System, method and computer program product for authenticating a data agreement between network entities (US 7,783,041)
41. Linked authentication protocols (US 7,707,412)
42. Method for protecting electronic device, and electronic device (US 7,630,495)
43. System and method for dynamically enforcing digital rights management rules (US 7,529,929)
44. Information hiding non-interactive proofs-of-work (Korea 37764-KR-PCT)
45. Secure backup and recovery using a key recovery service (Korea 808654)
46. Controlling delivery of certificates in a mobile communication system (US 7,526,642)
47. Method for sharing the authorization to use specific resources (US 7,343,014)
48. System and method of secure authentication and billing for goods and services using a cellular telecommunication and an authorization infrastructure (US 7,308,431)
49. Method, system, and devices for transferring accounting information (US 7,251,733)
50. Method, system and computer program product for secure ticketing in a communication device (US 7,207,060)
51. Method for applying electronic payment schemes in short-range e-commerce. (US 7,194,438)
52. IP mobility in a communication system (US 7,191,226)
53. Method, system and computer program product for a trusted counter in an external security element for securing a personal communication device. (US 7,178,041)
54. Personal device, terminal, server and methods for establishing a trustworthy connection between a user and a terminal (US 7,149,895, EP 1026641)
55. Authentication in a packet data network. (US 7,107,620, US 7,512,796, EP1273128)

56. System and method of bootstrapping a temporary public-key infrastructure from a cellular communication authentication and billing infrastructure. (US 7,107,248, EP1397787B1)
57. Addressing and routing in mobile ad hoc networks.
58. SIM based authentication mechanism for DHCPv4/v6 messages. (US 6,704,789, EP1175765B1)

**Invention disclosures:** Here is a list of my [pending patent applications](#) (according to Google Patents).

## Citations Record

- Google Scholar: 24 200+ citations, H-Index: 77  
<http://scholar.google.com/citations?user=0MqQ8AgAAAAJ&hl=en>
- Web of Science (Publons/Researcher ID): 5100+ citations, H-Index: 34  
<https://www.webofscience.com/wos/author/record/150583>
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