

REFERENCES

- [1] Md Abdul Azeem, Khaleel-ur-Rahman khan, A. V. Pramod, “Security Architecture Framework and Secure Routing Protocols in Wireless Sensor Networks-Survey”, in *International Journal of Computer Science & Engineering Survey (IJCSES)*, Vol.2, No.4, pp. 189-204, November 2011.
- [2] X Luo, Xu Ji and Myong-Soon Park, “Location privacy against traffic analysis attacks in wireless sensor networks”, in *International Conference on Information Science and Applications (ICISA)*, Seoul, Korea, Vol. 1, No. 6, pp. 1–6, 21-23 April, 2010.
- [3] Tamara Bonaci, Linda Bushnell and Radha Poovendran, “Node capture attacks in wireless sensor networks: A system theoretic approach”, in *49th IEEE Conference on Decision and Control (CDC)*, Atlanta, Georgia, USA, Vol. 1. pp. 6765–6772, 15-17 December 2010.
- [4] Bhoopathy, V. and R.M.S. Parvathi, “Energy Constrained Secure Hierarchical Data Aggregation in Wireless Sensor Networks”, in *American Journal of Applied Sciences*, ISSN 1546-9239, Vol.9, No.6, pp. 858-864, 2012.
- [5] Alvaro Araujo, Javier Blesa, Elena Romero and Daniel Villanueva, “Security in cognitive wireless sensor networks - Challenges and open problems”, in *EURASIP Journal on Wireless Communications and Networking 2012*, (2012):48, February 2012.
- [6] Kalyani, P. and C. Chellappan., “Enhanced RSA CRT for Energy Efficient Authentication to Wireless Sensor Networks Security”, *American Journal of Applied Sciences*, Vol. 9, No. 10, pp. 1660-1667, 2012.
- [7] S.Prasanna and Srinivasa Rao, “An Overview of Wireless Sensor Networks Applications and Security”, in *International Journal of Soft Computing and Engineering (IJSCE)*, ISSN: 2231-2307, Vol. 2, No. 2, May 2012.
- [8] Nanrun Zhou, Qiongxi Jiang and Xun Chen, “Identity-based Key Management Scheme with Provable Security for Wireless Sensor Networks”, in *Journal of Information & Computational Science*, Vol. 8, No. 14, pp. 3075- 3081, 2011.

References

- [9] Yuexin Zhang, Li Xu and Xinyi Huang, “Polynomial-based Key Pre-distribution Scheme in Wireless Mesh Networks”, in *Journal of Computational Information Systems*, Vol. 8, No. 6, pp. 2539–2549, 2012.
- [10] Manjusha Pandey and Shekhar Verma, “Residual Energy Based Anti-Traffic Analysis Privacy Preservation in WSN”, in *International Journal of Computer Network and Information Security*, 4, pp. 21-29, May 2012.
- [11] Xiaokang Xiong, Duncan S. Wong and Xiaotie Deng, “TinyPairing: A fast and lightweight pairing-based cryptographic library for wireless sensor networks”, in *Proceedings of the IEEE Wireless Communications and Networking Conference-2*, IEEE explore Press, Sydney, pp: 1-6, April 18-21, 2010.
- [12] Arvinderpal S. Wander, Nils Gura, Hans Eberle, Vipul Gupta and Sheueling Chang Shantz, “Energy analysis of public-key cryptography for wireless sensor networks” in *Proceedings of the 3rd IEEE International Conference on Pervasive Computing and Communications*, PERCOM-2005, pp. 324-328, March 8-12, 2005.
- [13] Haowen Chan, Adrian Perrig and Dawn Song, “Random key pre distribution schemes for sensor networks”, in *IEEE Symposium on Security and Privacy*, Berkeley, California, ISSN: 1081-6011, Print ISBN: 0-7695-1940-7, pp. 197–213, 11-14 May 2003.
- [14] Laurent Eschenauer and Virgil D. Gligor, “A key-management scheme for distributed sensor networks”, in *Proceedings of the 9th ACM Conference on Computer and Communications Security*, pp. 41–47, November 18–22, 2002.
- [15] Blom, Rolf. "An optimal class of symmetric key generation systems", in *Advances in cryptology - EUROCRYPT'84*, pp. 335-338. Springer Berlin Heidelberg, 1985.
- [16] Shih-I Huang and Shihpyng Shieh, “SEA: Secure Encrypted Data Aggregation in Mobile Wireless Sensor Networks”, in *Proceedings of the International Conference on Computational Intelligence and Security*, IEEE Explore Press, Harbin, pp: 848-852, December 15-19, 2007.
- [17] Chan, H., A. Perrig and D. Song, “Secure hierarchical in-network aggregation in sensor networks”, in *Proceedings of the 13th ACM Conference on Computer and Communications Security*, ACM, Alexandria, VA, USA, pp: 278-287, Oct. 30-Nov. 03,2006.

References

- [18] C. Karlof and D. Wagner, “Secure routing in wireless sensor networks: attacks and countermeasures”, in *Proceedings of the 1st IEEE International Workshop on Sensor Network Protocols and Applications*, May 2003, pp. 113–127.
- [19] Wood, Anthony D. and John A. Stankovic, “Denial of service in sensor networks”, in *Computer* 35, No. 10, pp. 54-62, 2002.
- [20] Heinzelman, Wendi Rabiner, Anantha Chandrakasan and Hari Balakrishnan, “Energy-efficient communication protocol for wireless microsensor networks”, in *Proceedings of the 33rd Annual Hawaii international conference on System sciences-2000*, pp. 10-pp. IEEE, 2000.
- [21] Qurat-ul-Ain, I. Tariq, Saneeha Ahmed and Huma Zia, “An objective based classification of aggregation techniques for wireless sensor networks”, in *Emerging Trends and Applications in Information Communication Technologies*, Springer Berlin Heidelberg, pp. 512-523, 2012.
- [22] Nandini. S. Patil, Prof. P. R. Patil, “Data Aggregation in Wireless Sensor Network”, in *IEEE International Conference on Computational Intelligence and Computing Research, 2010*.
- [23] Sankardas Roy, Mauro Conti, Sanjeev Setia, and Sushil Jajodia, “Secure Data Aggregation in Wireless Sensor Networks”, in *IEEE Transactions on Information Forensics and Security*, Vol. 7, NO. 3, JUNE 2012.
- [24] Vaibhav Pandey, Amarjeet Kaur and Narottam Chand, “A review on data aggregation techniques in wireless sensor Network”, in *Journal of Electronic and Electrical Engineering*, Vol. 1, pp-01-08, Issue 2, 2010.
- [25] Camtepe, Seyit A. and Bülent Yener, “Key distribution mechanisms for wireless sensor networks: a survey”, in *Technical Report (2005)*, Rensselaer Polytechnic Institute, Troy, New York, pp. 05-07, March 2005.
- [26] Neeraj Mittal and Ramon Novales, “Cluster-Based Key Pre-distribution Using Deployment Knowledge”, in *IEEE Transactions on Dependable and Secure Computing*, Vol. 7 no. 3, PP: 329-335, September 2010.
- [27] Ibrahima Niang and Thomas Noel, “A Deterministic Key Management Scheme for Securing Cluster Based Sensor Networks”, in *Embedded and Ubiquitous*

References

- Computing (EUC), IEEE 8th International Conference*, Hong Kong, pp. 422-427, Dec 2010.
- [28] Arif Selcuk Uluagac, Raheem A. Beyah, Yingshu Li and John A. Copeland, "VEBEK: Virtual Energy-Based Encryption and Keying for Wireless Sensor Networks" in *IEEE Transactions on Mobile Computing*, Vol. 9, No. 7, pp. 994-1007, July 2010.
- [29] Ruj, Sushmita, Amiya Nayak, and Ivan Stojmenovic, "Pairwise and triple key distribution in wireless sensor networks with applications", in *Computers, IEEE Transactions*, pp. 2224-2237, Vol. 62, No. 11, November 2013.
- [30] Guermazi, Abderrahmen and Mohamed Abid, "An Efficient Key Distribution Scheme to Secure Data-Centric Routing Protocols in Hierarchical Wireless Sensor Networks", in *2nd International Conference on Ambient Systems, Networks and Technologies (ANT)* Procedia Computer Science pp. 208-215, Vol. 5, 2011.
- [31] Kadri, Benamar, Djilalli Moussaoui, Mohammed Feham and Abdellah Mhammed, "An Efficient Key Management Scheme for Hierarchical Wireless Sensor Networks", *Wireless Sensor Network*, Vol. 4, No. 6, pp. 155-161, June 2012.
- [32] Shaik Sahil Babu, Arnab Raha and Mrinal Kanti Naskar, "Trust Evaluation Based on Node's Characteristics and Neighbouring Node's Recommendations for WSN", *Wireless Sensor Network*, 6, pp. 157-172, 2014.
- [33] Ishmanov, Farruh, Sung Won Kim and Seung Yeob Nam., "A Secure Trust Establishment Scheme for Wireless Sensor Networks", in *Sensors 14*, No. 1, pp. 1877-1897, 2014.
- [34] Feng, Renjian, Xiaofeng Xu, Xiang Zhou and Jiangwen Wan, "A trust evaluation algorithm for wireless sensor networks based on node behaviors and D-S Evidence Theory", in *open access Sensors* Vol. 11, No. 2, pp. 1345-1360, 2011.
- [35] Wang, Yong, Byrav Ramamurthy, Xukai Zou, and Yuyan Xue, "An efficient scheme for removing compromised sensor nodes from wireless sensor networks", in *Security and Communication Networks*, Vol. 3, No. 4, pp. 320-333, 2010.
- [36] Ch.Satya Keerthi.N.V.L, A.Manogna, Ch.Yasaswini, A.Aparna and S.Ravi Teja, "Behaviour based Trust Management using geometric mean approach for

References

- Wireless Sensor Networks, in *International Journal of Computer Trends and Technology*, Vol. 3, No. 2, 2012.
- [37] Hwang, Joengmin, Tian He and Yongdae Kim, “Detecting phantom nodes in wireless sensor networks”, in *26th IEEE International Conference on Computer Communications, IEEE, INFOCOM 2007*, pp. 2391-2395, 2007.
- [38] Liu, Ke, Nael Abu-Ghazaleh and Kyoung-Don Kang, “Location verification and trust management for resilient geographic routing”, in *Journal of Parallel and Distributed Computing* 67, No. 2 pp. 215-228, 2007.
- [39] Yanchao Zhang, Wei Liu, Wenjing Lou and Yuguang Fang, “Location-Based Compromise-Tolerant Security Mechanisms for Wireless Sensor Networks”, in *IEEE journal on selected areas in communications*, Vol. 24, No. 2, February 2006.
- [40] Chan-O Hong and Yoon-Hwa Choi, “Proximity-Based Robust Event Detection in Wireless Sensor Networks”, in *International Journal of Distributed Sensor Networks* Volume 2014, Article ID 632397, 7 pages, <http://dx.doi.org/10.1155/2014/632397>.
- [41] Li, Hongjuan, Keqiu Li, Wenyu Qu and Ivan Stojmenovic, “Secure and energy-efficient data aggregation with malicious aggregator identification in wireless sensor networks”, in *Future Generation Computer Systems* 37, pp. 108-116, 2014.
- [42] Kausar, Firdous, Sajid Hussain, Jong Hyuk Park and Ashraf Masood, “Secure group communication with self-healing and rekeying in wireless sensor networks”, in *Mobile Ad-Hoc and Sensor Networks*, Springer Berlin Heidelberg, pp. 737-748, 2007.
- [43] Di Pietro, Roberto, Luigi V. Mancini and Sushil Jajodia, “Providing secrecy in key management protocols for large wireless sensors networks”, in *Ad Hoc Networks*, Vol. 1, no. 4, pp. 455-468, 2003.
- [44] Ma, Di and Gene Tsudik, “Dish: Distributed self-healing”, in *Stabilization, Safety and Security of Distributed Systems*, Springer Berlin Heidelberg, pp. 47-62, 2008.
- [45] Nikounia, Seyed Hossein, Amir Hossein Jahangir and Vanesa Daza, “A distributed group rekeying scheme for wireless sensor networks”, in the *Sixth*

References

- International Conference on Systems and Networks Communications, ICSNC 2011*, pp. 127-135, 2011.
- [46] Park, DongGook, Colin Boyd and Sang-Jae Moon, “Forward secrecy and its application to future mobile communications security”, in *Public key cryptography*, Springer Berlin Heidelberg, 2000.
- [47] Di Pietro, Roberto, Di Ma, Claudio Soriente and Gene Tsudik, “Posh: Proactive co-operative self-healing in unattended wireless sensor networks”, in *Reliable Distributed Systems, 2008. SRDS'08, IEEE Symposium*, pp. 185-194, 2008.
- [48] Alzaid, Hani, DongGook Park, Juan González Nieto, Colin Boyd and Ernest Foo, “A forward and backward secure key management in wireless sensor networks for PCS/SCADA”, in *Sensor Systems and Software*, Springer Berlin Heidelberg, pp. 66-82, 2010.
- [49] Naik, Vinayak, Anish Arora, Sandip Bapat, and Mohamed Gouda, “Whisper: Local secret maintenance in sensor networks”, in *Workshop on Principles of Dependable Systems*, 2003.
- [50] Karlsson, Per, Lasse Oberg and Youzhi Xu, “An address coding scheme for wireless sensor networks”, in *Proceedings of the Fifth Scandinavian Workshop on Wireless Ad-Hoc Networks (ADHOC'05)*, pp. 3-4. 2005.
- [51] P. fletschinger, Stephan, Monica Navarro and Christian Ibars., “Energy-efficient data collection in WSN with network coding”, in *IEEE Globecom Workshops 2011*, pp. 394-398, 2011.
- [52] Kolo, Jonathan Gana, S. Anandan Shanmugam, David Wee Gin Lim, Li-Minn Ang and Kah Phooi Seng. “An Adaptive Lossless Data Compression Scheme for Wireless Sensor Networks”, in *Journal of Sensors* 2012.
- [53] Wang, Jin, Xiumin Wang, Shukui Zhang, Yanqin Zhu and Juncheng Jia., “An Efficient Reliable Communication Scheme in Wireless Sensor Networks Using Linear Network Coding”, in *International Journal of Distributed Sensor Networks* 2012.
- [54] Wang, Tsang-Yi, Yunghsiang S. Han, Biao Chen and Pramod K. Varshney, “A combined decision fusion and channel coding scheme for distributed fault-tolerant

References

- classification in wireless sensor networks”, in *Wireless Communications, IEEE Transactions-2006*, Vol. 5, No. 7, pp. 1695-1705, 2006.
- [55] Ali, Nora, Hany ElSayed, Magdi El-Soudani and Hassanein Amer, “Single and Multi Coding Schemes for Efficient Wireless Sensor Networks”, in *Wireless Sensor Network-2012*.
- [56] Standard, N. F., “Data Encryption Standard (DES)”, in *Federal Information Processing Standards Publication* , 1999.
- [57] Robertazzi, Thomas, “Advanced encryption standard (AES)”, in *Basics of Computer Networking*, Springer, New York, pp. 73-77, 2012.
- [58] Verma, O. P., Ritu Agarwal, Dhiraj Dafouti and Shobha Tyagi, “Performance analysis of data encryption algorithms”, in *IEEE Third International Conference on Electronics Computer Technology (ICECT-2011)*, Vol. 5, pp. 399-403, 2011.
- [59] William, Stallings and William Stallings, “Cryptography and Network Security, 4/E, Pearson Education India, 2006.
- [60] Couture, Nathaniel and Kenneth B. Kent, “The effectiveness of brute force attacks on RC4”, in *Proceedings of Second Annual Conference on Communication Networks and Services Research, IEEE-2004*, pp. 333-336. 2004.
- [61] El-Fishawy, Nawal and OM Abu Zaid, “Quality of encryption measurement of bitmap images with RC6, MRC6 and Rijndael block cipher algorithms”, in *International Journal of Network Security*, Vol. 5, No. 3 pp. 241-251, 2007.
- [62] Lenstra, Arjen K. and Eric R. Verheul, “Selecting cryptographic key sizes”, in *Journal of cryptology*, Vol. 14, No. 4 pp. 255-293, 2001.
- [63] http://www.isi.edu/nsnam/ns/doc/ns_doc.pdf.
- [64] <http://compilers.cs.ucla.edu/emsoft05/LevisLeeWelshCuller03.pdf>.
- [65] <http://www.ccs.neu.edu/course/csg250/Glomosim/glomoman.pdf>
- [66] Kyriakos Ovaliadis, Nick Savage, “Underwater Sensor Network Simulation Tool (USNeT)”, *International Journal of Computer Applications*, Vol. 71, No. 22, pp. 19-27, June 2013.
- [67] <http://www.cs.ucla.edu/~palsberg/sns/SundreshKimAgha04.pdf>.
- [68] <https://www.sics.se/~thiemo/eriksson09interoperability.pdf>.

References

- [69] <https://forge.nicta.com.au/docman/view.../Castalia+-+User+Manual.pdf>
- [70] <http://arxiv.org/pdf/cs/0502003.pdf>.
- [71] https://www.usenix.org/legacy/event/usenix04/tech/general/full_papers/girod/girod_html/eu.html
- [72] Chen, G., J. Branch, M. J. Pflug, L. Zhu and B. Szymanski, “SENSE: A Sensor Network Simulator”, *Advances in Pervasive Computing and Networking*, Springer, pp. 249-267, 2004.
- [73] Philip Baldwin, Sanjeev Kohli, Edward A. Lee, Xiaojun Liu and Yang Zhao, “VisualSense: Visual Modeling for Wireless and Sensor Network Systems”, Technical Memorandum UCB/ERL M05/25, University of California, Berkeley, CA 94720, USA, July 15, 2005.
- [74] C. Mallanda, A. Suri, V. Kunchakarra, S.S. Iyengar, R. Kannan and A. Durresi, “Simulating Wireless Sensor Networks with OMNeT++”, Sensor Network Research Group, Department of Computer Science, Louisiana State University, Baton Rouge, LA.
- [75] Ahmed Sobeih, Wei-Peng Chen, Jennifer C. Hou, Lu-Chuan Kung, Ning Li, Hyuk Lim, Hung-Ying Tyan and Honghai Zhang, “J-Sim: A Simulation and Emulation Environment for Wireless Sensor Networks”, <http://www.j-sim.org/v1.3/sensor/JSim.pdf>.
- [76] Ben L. Titzer, Daniel K. Lee and Jens Palsberg, “Aurora: Scalable sensor network simulation with precise timing”, 4th International conference on Information Processing in Sensor Networks, 2005.