

Target BER	SNR (dB)		
	OQPSK - GA [1]	OQPSK - PSO [1]	MSK
10-1	0	0	0
10-2	5.2	5.3	4
10-3	9.8	10	7
10-4	11	12	8.2
10-5	-----	-----	9.5
10-6	-----	-----	11

Table 2: Simulation Results Comparison with [1]

## VI. CONCLUSION

In this work physical layer simulation of IEEE 802.15.4 / ZigBee protocol has been done. The proposed work is the implementation of ZigBee system according to the protocol description. In this work we have simulated ZigBee system first with conventional OQPSK modulation technique, then the simulations are performed for MSK modulation, which is through OQPSK modulation. Simulation results for BER showing the average 79.43 % improvement in BER for Proposed MSK compared with OQPSK modulation scheme. For a target BER of 10-2 the SNR required is 4 dB for this work i.e. for MSK, as compared to 5.2 dB for conventional OQPSK. Hence, an improvement of 6 dB less SNR. For a target BER of 10-2 the SNR required is 4 dB for this work i.e. for MSK, as compared to 5.2 dB with [1]. Hence, an improvement of 1.2 dB less SNR. Based on the results of this work, one would choose the 868 MHz or 968 MHz MSK Physical Layer to optimize the hardware cost and implement the 2.4 GHz Physical Layer to maximize data rate. But, overall we can conclude that due to minimum variations in MSK, the BER probability is less in MSK systems.

## REFERENCES

1. Asmaa M. Romia et al, "Design Optimization of LMS-Based Adaptive Equalizer for ZigBee Systems with Fading Channels", IEEE International Conference on Computing, Mathematics and Engineering Technologies - iCoMET 2018.
2. Soumen Moulik et al, "Performance Evaluation and Delay-Power Trade-off Analysis of ZigBee Protocol", IEEE Transactions on Mobile Computing, 2018.
3. Trio Adiono et al, "Zigbee Baseband Hardware Modeling for Internet of Things IEEE 802.15.4 Compliance", IEEE 6th International Conference on Electrical Engineering and Informatics (ICEEI), 2017.
4. Pere Pala et al, "Superregenerative Reception of Narrowband FSK Modulations", IEEE Transactions on Circuits & Systems-I: Regular Papers, Vol. 62, No. 3, March 2015.

5. Varshney et al., "Comparative Analysis of OQPSK and MSK Based ZigBee Transceiver Using MATLAB", International Journal of Advanced Research in Computer Science and Software Engineering 3(6), Pp. 948-956, June - 2013.
6. Irfan Ali et al, "Bit-Error-Rate (BER) Simulation Using MATLAB", International Journal of Engineering Research and Applications (IJERA) ISSN: 2248-9622 ,Vol. 3, Issue 1, Pp.706-711, February 2013.
7. Kapil Dev Jha et al, "Design & Simulation of ZigBee Transceiver System Based on MSK and QPSK Using MATLAB", International Journal of New Trends in Electronics and Communication (UNTEC) ,Vol.1, Issue. 4, Nov. 2013.
8. Wei Yuan et al, "Coexistence Performance of IEEE 802.15.4 Wireless Sensor Networks Under IEEE 802.11b/g Interference", International Journal Distributed Sensor Networks volume 2010(2010),Article ID581081,Pp -6,2010.
9. G. M. Tamilselvan and Dr. A. Shanmugam, "Probability Analysis of channel collision between IEEE 802.15.4 and IEEE 802.11b using Qualnet Simulation for various Topologies" International Journal of Computer Theory and Engineering, Vol. 1, No. 1, April 2009.
10. NazirCihanTas et-al, "IEEE 802.15.4 Throughput Analysis under IEEE 802.11 Interference" International Symposium on Innovations and Real Time Applications of Distributed Sensor Networks, 2007.
11. Yuan, W., Linnartz, J. P. M. G., & Niemegeers, "Adaptive CCA for IEEE 802.15.4 wireless sensor networks to mitigate interference" IEEE wireless communications and networking conference Sydney, pp.1-5,2010.
12. Z. Alliance, "ZigBee Alliance," WPAN industry group, the industry group responsible for the ZigBee standard and certification, 2010.
13. C. V. Berta, D. P. A. Rodolfo, R. Susan, and P. Dirk, "Experimental evaluation of beacon scheduling mechanisms for multi hop IEEE 802.15.4 wireless sensor networks," in Proceedings of the 4th International Conference on Sensor Technologies and Applications (Sensor Comm '10), pp. 226-231, July 2010.
14. S. Ahmed, "The Role of ZigBee Technology in Future Data Communication System, "Journal of Applied Information Technology, vol. 5, no. 2, pp. 129 - 135, 2009.

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**Advances in Computing and Data Sciences** Mayank Singh, P.K. Gupta, Vipin Tyagi, Jan Flusser, Tuncer Ören, Rekha Kashyap, 2019-07-18 This two volume set CCIS 1045 and CCIS 1046 constitutes the refereed proceedings of the Third International Conference on Advances in Computing and Data Sciences ICACDS 2019 held in Ghaziabad India in April 2019 The 112 full papers were carefully reviewed and selected from 621 submissions The papers are centered around topics like advanced computing data sciences distributed systems organizing principles development frameworks and environments software verification and validation computational complexity and cryptography machine learning theory database theory probabilistic representations

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**Cross-Technology Communication for Internet of Things** Xiuzhen Guo, Yuan He, Yunhao Liu, 2023-07-31 Cross technology communication CTC is a technology that enables

direct communication between heterogeneous devices that use different wireless standards. It works like a translator between two or more wireless technologies. CTC not only creates a new avenue for inter operation and data exchange between wireless devices but also enhances the ability to manage wireless networks. This book focuses on the enabling technology CTC and introduces readers to a variety of CTC techniques in heterogeneous wireless networks. These techniques can be divided into two categories: packet level CTCs based on energy modulation and channel intervention and physical level CTCs based on cross demapping, digital emulation and split encoding. The book offers a comprehensive comparison and analysis granting readers a deeper understanding of CTC techniques in terms of throughput, reliability, hardware modification and concurrency. Moreover, it highlights upper layer CTC application scenarios and cutting edge developments which include but are not limited to interference management, channel quality estimation, network routing etc. The book is intended for all readers e.g. researchers, students and even professionals who are interested in the areas of wireless networking, wireless communication, mobile computing and Internet of Things. The findings and summaries presented here can help 1 guide researchers to rethink CTC techniques in connection with design methodology, 2 further advance the infrastructure of future IoT by introducing CTC and 3 enable important IoT applications by delivering ubiquitous network connectivity.

*Cross-Technology Coexistence Design for Wireless Networks* Junmei Yao, Kaishun Wu, 2023-05-22. This book introduces readers to the fundamentals of the cross technology coexistence problem in heterogeneous wireless networks. It also highlights a range of mechanisms designed to combat this problem and improve network performance including protocol design, theoretical analysis and experimental evaluation. In turn, the book proposes three mechanisms that can be combined to combat the cross technology coexistence problem and improve network performance. First, the authors present a fast signal identification method. It provides the basis for the subsequent protocol design and allows heterogeneous devices to adopt proper transmission strategies. Second, the authors present two cross technology interference management mechanisms in both the time domain and the frequency domain which can mitigate interference and increase transmission opportunities for heterogeneous devices thus improving network performance. Third, they present a cross technology communication mechanism based on symbol level energy modulation which allows heterogeneous devices to transmit information directly without a gateway, improving transmission efficiency and paving the way for new applications in IoT scenarios. Lastly, they outline several potential research directions to further improve the efficiency of cross technology coexistence. This book is intended for researchers, computer scientists and engineers who are interested in the research areas of wireless networking, wireless communication, mobile computing and Internet of Things. Advanced level students studying these topics will benefit from the book as well.

*Materials, Mechatronics and Automation II* De Huai Zeng, 2013-08-30. Selected peer reviewed papers from the 2013 International Conference on Materials Mechatronics and Automation ICMMA 2013 April 21-22 2013 Singapore. **Gray Hat Hacking: The Ethical Hacker's Handbook, Fifth Edition** Daniel Regalado, Shon Harris, Allen

Harper,Chris Eagle,Jonathan Ness,Branko Spasojevic,Ryan Linn,Stephen Sims,2018-04-05 Cutting edge techniques for finding and fixing critical security flaws Fortify your network and avert digital catastrophe with proven strategies from a team of security experts Completely updated and featuring 13 new chapters Gray Hat Hacking The Ethical Hacker s Handbook Fifth Edition explains the enemy s current weapons skills and tactics and offers field tested remedies case studies and ready to try testing labs Find out how hackers gain access overtake network devices script and inject malicious code and plunder Web applications and browsers Android based exploits reverse engineering techniques and cyber law are thoroughly covered in this state of the art resource And the new topic of exploiting the Internet of things is introduced in this edition Build and launch spoofing exploits with Ettercap Induce error conditions and crash software using fuzzers Use advanced reverse engineering to exploit Windows and Linux software Bypass Windows Access Control and memory protection schemes Exploit web applications with Padding Oracle Attacks Learn the use after free technique used in recent zero days Hijack web browsers with advanced XSS attacks Understand ransomware and how it takes control of your desktop Dissect Android malware with JEB and DAD decompilers Find one day vulnerabilities with binary diffing Exploit wireless systems with Software Defined Radios SDR Exploit Internet of things devices Dissect and exploit embedded devices Understand bug bounty programs Deploy next generation honeypots Dissect ATM malware and analyze common ATM attacks Learn the business side of ethical hacking

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Harper,Ryan Linn,Stephen Sims,Michael Baucom,Huascar Tejeda,Daniel Fernandez,Moses Frost,2022-03-11 Up to date strategies for thwarting the latest most insidious network attacks This fully updated industry standard security resource shows step by step how to fortify computer networks by learning and applying effective ethical hacking techniques Based on curricula developed by the authors at major security conferences and colleges the book features actionable planning and analysis methods as well as practical steps for identifying and combating both targeted and opportunistic attacks Gray Hat Hacking The Ethical Hacker s Handbook Sixth Edition clearly explains the enemy s devious weapons skills and tactics and offers field tested remedies case studies and testing labs You will get complete coverage of Internet of Things mobile and Cloud security along with penetration testing malware analysis and reverse engineering techniques State of the art malware ransomware and system exploits are thoroughly explained Fully revised content includes 7 new chapters covering the latest threats Includes proof of concept code stored on the GitHub repository Authors train attendees at major security conferences including RSA Black Hat Defcon and Besides

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Vahdat-Nejad,Klaus-Hendrik Wolf,Mauro Dragone,Juan Ye,Carsten Röcker,Gregory O'Hare,2013-12-14 This book constitutes the refereed proceedings of the workshops co located with the 4th International Joint Conference on Ambient Intelligence AmI 2013 held in Dublin Ireland in December 2013 The 33 revised full papers presented were carefully reviewed and selected from numerous submissions to the following workshops 5th International Workshop on Intelligent Environments

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