

BAW CHNG

PATENTS, PRESENTATIONS / TALKS, PUBLICATIONS

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PATENTS

- U.S. Patent #7,299,278: "Managing Network Faults"
 - U.S. Patent #8,060,058: "Secure Mobile Base Station Connections"
 - U.S. Patent #8,078,165: "Configuring Preferred User Zone Lists for Private Access Points for Wireless Networking"
 - U.S. Patent #8,176,327: "Authentication Protocol"
 - U.S. Patent #8,400,989: "Activating Private Access Points for Wireless Networking"
 - U.S. Patent #8,402,143: "Secure Proxies for Flat Networks"
 - U.S. Patent #8,594,663: "Selecting Embedded Cells in Wireless Network"
 - U.S. Patent #8,615,593: "Providing Zone Indications for Wireless Networking"
 - U.S. Patent #8,688,809: "Provisioning Private Access Points for Wireless Networking"
 - U.S. Patent #8,731,574: "Assigning Code Space to Portable Base Stations"
 - U.S. Patent #8,781,483: "Controlling Access to Private Access Points for Wireless Networking"
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PUBLIC PRESENTATIONS / TALKS

1. **"Identity, Privacy, and Tracking on Communication Networks"**
presented to the IEEE on April 16, 2024.
 2. **"5G, 6G, and Beyond, with Artificial Intelligence (AI) & Machine Learning (ML) for 6G and Beyond"**
presented to the IEEE on November 21, 2023.
 3. **"Artificial Intelligence & Machine Learning" IEEE Roadmap Update**
presented to the Future Networks World Forum, November 14, 2023.
 4. **"AI/ML Considerations for System Optimization"**
speaker, System Optimization Symposium, Future Networks World Forum, November 13, 2023.
 5. **"Connectivity Plenary"**
moderator, Global Humanitarian Technology Conference, October 13, 2023.
 6. **"Finger on the Pulse: Updating the Roadmap to 5G & Beyond (5G&B)"**
speaker and panelist, IEEE Future Networks Webinar, September 20, 2023.
 7. **"HTTP 1, 2, 3 ..."** ("Hypertext Transfer Protocol 1, 2, 3 ...")
presented to the IEEE on November 15, 2022.
 8. **"Next-Next-Generation Wi-Fi, from Contention to Scheduled Access"**
presented to the IEEE on July 19, 2022.
 9. **"Systems Optimization for Future Networks"**
speaker and panelist, IEEE Future Networks Webinar, May 18, 2022.
 10. **"Introduction to Computer Networking for Middle-Schoolers"**
presented to the Rosa International Middle School's 7th Grade classes on March 28, 2022.
 11. **"Randomized MAC Addresses, System Impacts and Implications"**
presented to the IEEE on October 19, 2021.
 12. **"The Future of Communications"**
presented to the Philadelphia IEEE Consultants Network on September 1, 2015.
 13. **"Re-Architecting the Wireless Telecom System"**
presented to the Philadelphia IEEE Consultants Network on March 6, 2012.
 14. **"Software Defined Networking (SDN)"**
presented to the Philadelphia IEEE Consultants Network on May 7, 2013.
 15. **"Quality of Service (QoS)"**
presented to the Philadelphia IEEE Consultants Network on May 6, 2014.
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PUBLICATIONS

1. **"Artificial Intelligence and Machine Learning"** (2023)
editor, with various authors, *IEEE International Network Generations Roadmap, 2023 Edition*
2. **"Security and Privacy"** (2023)
with various authors, *IEEE International Network Generations Roadmap, 2023 Edition*
3. **"Standardization Building Blocks"** (2023)
editor, with various authors, *IEEE International Network Generations Roadmap, 2023 Edition*
4. **"System Optimization"** (2023)
editor, with various authors, *IEEE International Network Generations Roadmap, 2023 Edition*
5. **"Artificial Intelligence and Machine Learning"** (2022)
with various authors, *IEEE International Network Generations Roadmap, 2022 IEEE Future Networks World Forum (FNWF), Montreal, QC, Canada, 2022*
6. **"Standardization Building Block"** (2022)
with various authors, *IEEE International Network Generations Roadmap, 2022 IEEE Future Networks World Forum (FNWF), Montreal, QC, Canada, 2022*
7. **"System Optimization"** (2022)
with various authors, *IEEE International Network Generations Roadmap, 2022 IEEE Future Networks World Forum (FNWF), Montreal, QC, Canada, 2022*
8. **"Randomized MAC Address Conflict Analysis and Implications"**
May 2021
9. **"Gemini: An Optical Interconnection Network for Parallel Processing"**
with R. D. Chamberlain and M. A. Franklin, *IEEE Transactions on Parallel and Distributed Systems*, 13(10):1038—1055, October 2002.
10. **"Evaluating the Performance of Optical Interconnection Networks"**
with R. D. Chamberlain, M. A. Franklin, C. Hackmann, P. Krishnamurthy, A. Mahajan, and M. Wrighton, in the *Proceedings of the 35th Annual Simulation Symposium*, April 2002, pp. 209 – 218.
11. **"Fair Scheduling in an Optical Interconnection Network"**
with R. D. Chamberlain and M. A. Franklin, in the *Proceedings of the Seventh International Symposium on Modeling, Analysis, and Simulation of Computer and Telecommunications Systems (MASCOTS)*, October 1999, pp. 56 – 65.



12. **"The Gemini Interconnect: Data Path Measurements and Performance Analysis"**
with R. D. Chamberlain, M. A. Franklin and M. G. Wrighton, in the *Proceedings of the Sixth International Conference on Parallel Interconnect (formerly MPPOI)*, October 1999, pp. 52 – 61.
 13. **"Design of an Interconnection Network Using VLSI Photonics and Free-Space Optical Technologies"**
with R. D. Chamberlain and M. A. Franklin, in the *Proceedings of the Sixth International Conference on Parallel Interconnect (formerly MPPOI)*, October 1999, pp. 21 – 30.
 14. **"Transition Shifts Due to Applied Head Fields,"**
with E. Glavinias, R. S. Indeck, and M. W. Muller in *IEEE Transactions on Magnetics*, vol. 33, no. 5, September 1997, pp. 2863 – 2685.
 15. **"Design, Analysis, and Simulation Study of Optical Interconnection Networks,"**
Master of Science Thesis, Computer Science Department, Washington University in Saint Louis, May 1999. Thesis Committee Members: M. A. Franklin (Advisor), R. D. Chamberlain, G. Varghese, J. S. Turner.
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