

# Raymond Greenlaw

Curriculum Vitæ

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## EDUCATION

- ▷ BA Pomona College (Mathematics) cum laude (10.9/12.0) 1983  
Harvey Mudd College (3 courses senior year) (11.3/12.0) 1982–83
- ▷ MS University of Washington (Computer Science) (3.61/4.00) 1986
- ▷ PhD University of Washington (Computer Science) (4.00/4.00) 1988

## AWARDS AND HONORS

- ▷ *Rensselaer Mathematics Medal* 1979
- ▷ *Bausch & Lomb Science Medal* 1979
- ▷ *Salutatorian*, East Providence High School, Rhode Island 1979  
(class of 750 students)
- ▷ *Edison Science Award*, State Finalist 1979
- ▷ *National Mathematics Exam*, District High Score 1979
- ▷ *Outstanding Student Award East Providence High School* 1979
- ▷ *Honors at Entrance Pomona College* 1979
- ▷ *ARCS Scholar* (Achievement Reward for College Scientists) 1982
- ▷ *ARCS Scholar* 1983
- ▷ *Fulbright Scholarship*, Senior Research Award 1995  
Research in Parallel Approximation Algorithms  
and Parallel Computation  
Departament de Llenguatges i Sistemes Informàtics  
Universitat Politècnica de Catalunya, Barcelona, Spain
- ▷ *Humboldt Fellowship*, Research Award 1995–96  
Investigations in Parallel Computing  
Institut für Informatik  
Der Technischen Universität München, Munich, Germany  
I declined this award because I already had accepted a  
Senior Fulbright Scholarship.
- ▷ *Spanish Fellowship* for Scientific and Technical Investigations 1996  
Research in Parallel Computing

Departament de Llenguatges i Sistemes Informàtics  
 Universitat Politècnica de Catalunya, Barcelona, Spain

- ▷ *Invited Visiting Scholar*, German Fulbright Foundation 1996  
 Wilhelm-Schickard-Institut für Informatik, Universität Tübingen  
 Fakultät für Informatik, Universität Ulm  
 Institut für Informatik, Der Technischen Universität München  
 (April)
- ▷ *Invited Visiting Fellow* 1996  
 Dipartimento di Scienze dell'Informazione  
 Università degli Studi di Roma *La Sapienza*, Rome, Italy  
 (July)
- ▷ *Invited Visiting Fellow* 1998  
 Dipartimento di Scienze dell'Informazione  
 Università degli Studi di Roma *La Sapienza*, Rome, Italy  
 (January)
- ▷ *Fulbright Scholarship*, Senior Research Award 1999  
 Research in Parallel Algorithms with a Focus on Problems  
 Restricted to Trees  
 Department of Computer Science  
 University of Iceland, Reykjavík, Iceland
- ▷ *JSPS Invitation Fellowship*, Research Award 2000  
 Japan Society for the Promotion of Science  
 Human Genome Center, Institute for Medical Science  
 University of Tokyo, Tokyo, Japan
- ▷ *Fulbright Scholarship*, Senior Lecturing/Research Award 2006  
 Curriculum and Faculty Development in Computer Science,  
 and Advances in Parallel Computing  
 Department of Computer Science  
 Chiang Mai University, Chiang Mai, Thailand
- ▷ *Coors Distinguished Professor of Computer Science* 2005–06  
 Department of Computer Science  
 United States Airforce Academy, Colorado Springs, Colorado  
 I declined this position to accept a Senior Fulbright  
 Scholarship to Chiang Mai University.
- ▷ *Sasakawa Fellowship for Japanese Studies* 2007  
 National Faculty Development Institute sponsored by the  
 American Association of State Colleges and Universities  
 San Diego State University, California  
 (June)
- ▷ *Alumni Award for Distinguished Faculty Service to the Academic* 2007–08

*Discipline*

- Armstrong Atlantic State University
- ▷ *Member of Phi Kappa Phi* 2006–10  
National Honor Society
  - ▷ *Member of Omicron Delta Kappa* 2006–10  
National Leadership Honor Society
  - ▷ *Invited Visiting Professor* 2003–15  
Management and Science University  
Kuala Lumpur, Malaysia
  - ▷ *Distinguished Professor of Computer Science* 2006–22  
Department of Computer Science  
Chiang Mai University (Chiang Mai, Thailand)
  - ▷ *Distinguished Professor of Information Technology* 2010–12  
RADM Frank T. Leighton (USNA 1909)/Class of 1948  
Distinguished Visting Professor of Information Technology  
Department of Computer Science  
United States Naval Academy (Annapolis, Maryland)
  - ▷ *Office of Naval Research Distinguished Chair* 2012–16  
Center for Cyber-Security Studies  
Department of Cyber Sciences  
United States Naval Academy (Annapolis, Maryland)
  - ▷ *Fulbright Scholarship, Senior Professor Award* 2021–23  
Distinguished Chair in Cyber Security  
Faculty of Science, Department of Computer Science  
University of Namibia (Windhoek, Namibia)

## EMPLOYMENT

- ▷ University of New Hampshire (Durham, New Hampshire) 1989–98
  - Assistant Professor of Computer Science 1989–94
  - Associate Professor of Computer Science (early tenure) 1994–98
  - See page 40 for administrative experience.
- ▷ Armstrong Atlantic State University (Savannah, Georgia) 1998–2010
  - Professor of Computer Science (tenured) 1998–2010
  - Department Head 1998–2002  
Founding Head for Department of Computer Science  
See page 40 for administrative experience.
  - Founding Dean, School of Computing 2002–07  
See page 41 for administrative experience.
- ▷ University System of Georgia (Savannah, Georgia) 1998–2010

- Regional Coordinator of Yamacraw Project 2000–04  
 Coordinate the southeastern region of Georgia on the \$100,000,000 strategic-economic-development Yamacraw Project designed to make Georgia a world leader in the design of broadband-infrastructure systems, devices, and chips. Serve as regional spokesperson.  
 See page 43 for further details.
- ▷ Management and Science University (Kuala Lumpur, Malaysia) 2003–15
  - Visiting Professor
- ▷ Chiang Mai University (Chiang Mai, Thailand) 2006–22
  - Distinguished Professor of Computer Science 2006–22
  - Member of Graduate Faculty 2007–22
- ▷ Elbrys Networks, Inc. (Portsmouth, New Hampshire) 2009–16
  - Research Scientist
  - Consultant on regulatory matters and issues relating to health and wellness technologies.
  - Developer and primary author of a mobile application about nutrition.
- ▷ United States Naval Academy (Annapolis, Maryland) 2010–16
  - Leighton Endowed Distinguished Visiting Professor of Information Technolgy 2010–12
  - Institutional Representative for Cyberwatch 2011–16
  - Developed new materials for cyber-security course required of all plebes. 2011
  - Office of Naval Research Distinguished Chair, Professor Center for Cyber-Security Studies 2012–16
  - Helped lead a national effort to develop learning outcomes and ABET Program Criteria for Cyber Security programs. Founding member of the Cyber Education Project (CEP). 2012–16
  - Developed the first course, Fundamentals of Cyber Operations, in the new Cyber-Operations degree and served as the Course Coordinator. 2013
  - Developed an Assessment Plan and ABET Self-Study draft for the Cyber-Operations program. 2014–16
  - Initial member of the Department of Cyber Sciences. 2015–16
- ▷ ABET Consultant for ABET, Inc. 2010–19
  - Invited consultant for ABET Foundation.
  - Consultant for universities regarding ABET accreditation.
- ▷ Roxy Publishing 2016–
  - President and author.
- ▷ ABET Consulting Business 2016–

- President and consultant.
- Consultant for universities on accreditation and curriculum.

- ▷ *Distinguished Chair of Cyber Security* 2022–  
Department of Computer Science  
University of Namibia (Windhoek, Namibia)

## SABBATICALS

- ▷ Departament de Llenguatges i Sistemes Informàtics 1995–96  
Universitat Politècnica de Catalunya, Barcelona, Spain
- ▷ Department of Computer Science 2006  
Chiang Mai University, Chiang Mai, Thailand  
(January–July)

## PUBLICATIONS

*Books*

1. (with H. James Hoover and W. Larry Ruzzo) *Limits to Parallel Computation: P-Completeness Theory*, Oxford University Press, xiii + 311 pp., 1995.
2. (with H. James Hoover) *Fundamentals of the Theory of Computation: Principles and Practice*, Morgan Kaufmann Publishers, xvi + 336 pp., 1998.
3. (with Ellen Hepp) *In-line/On-line: Fundamentals of the Internet and the World Wide Web*, McGraw-Hill, xxiii + 549 pp., 1999.  
(with Ellen Hepp) *Introduction to the Internet*, customized version of *In-line/On-line: Fundamentals of the Internet and the World Wide Web*, Primis Custom Publishing, 1999.  
(with Ellen Hepp) *The Internet is Your Friend*, customized version of *In-line/On-line: Fundamentals of the Internet and the World Wide Web*, Primis Custom Publishing, 1999.  
(with Ellen Hepp) *Selected Chapters from In-line/On-line: Fundamentals of the Internet and the World Wide Web*, customized version of *In-line/On-line: Fundamentals of the Internet and the World Wide Web*, Primis Custom Publishing, 1999.  
(with Ellen Hepp) *The Internet is Your Friend*, customized version of *In-line/On-line: Fundamentals of the Internet and the World Wide Web*, Primis Custom Publishing, Second Edition, 2000.  
(with Ellen Hepp) *The Internet is Your Friend*, customized version of *In-line/On-line: Fundamentals of the Internet and the World Wide Web*, Primis Custom Publishing, Third Edition, 2000.
4. *In-line/On-line: Fundamentals of the Internet and the World Wide Web*, Chinese translation, McGraw-Hill, xv + 373 pp., 2001.

5. (with Ellen Hepp) *In-line/On-line: Fundamentals of the Internet and the World Wide Web*, McGraw-Hill, Second Edition, xxiv + 696 pp., 2001.
6. (with Ellen Hepp) *Instructor's Resource Guide to Accompany In-line/On-line: Fundamentals of the Internet and the World Wide Web*, McGraw-Hill, x + 300 pp., 1999.
7. (with Ellen Hepp) *Instructor's Resource Guide to Accompany In-line/On-line: Fundamentals of the Internet and the World Wide Web*, McGraw-Hill, Second Edition, xii + 379 pp., 2001.
8. (with Ellen Hepp) *Introduction to the Internet for Engineers*, McGraw-Hill, Best Series, xviii + 328 pp., 1999.
9. (with Ellen Hepp) *Fondamenti di Internet*, Italian translation by Carmelo Giarratana, McGraw-Hill Libri Italia, Milano, xi + 294 pp., 1999.
10. (with Ellen Hepp) *Instructor's Manual to Accompany Introduction to the Internet for Engineers*, McGraw-Hill, ix + 150 pp., 1999.
11. (with Ellen Hepp) *Student Solutions Manual to Accompany In-line/On-line: Fundamentals of the Internet and the World Wide Web*, McGraw-Hill, x + 154 pp., 1999.
12. (with Ellen Hepp) *Student Solutions Manual to Accompany In-line/On-line: Fundamentals of the Internet and the World Wide Web*, McGraw-Hill, Second Edition, xii + 185 pp., 2001.
13. (with Ellen Hepp) *Quiz Book to Accompany In-line/On-line: Fundamentals of the Internet and World Wide Web*, McGraw-Hill, ix + 150 pp., 2001.
14. *Understanding Practical Unix*, Franklin, Beedle & Associates, Inc., xx + 420 pp., 2001.
15. (with Gregory Geller) *Instructor's Resource Guide to Accompany Understanding Practical Unix*, Franklin, Beedle & Associates, Inc., x + 207 pp., 2002.
16. (with Gregory Geller) *Student's Solutions Manual to Accompany Understanding Practical Unix*, Franklin, Beedle & Associates, Inc., x + 147 pp., 2002.
17. (with Geir Agnarsson) *Graph Theory: Modeling, Applications, and Algorithms*, Prentice-Hall, xvii + 446 pp., 2007.  
(with Geir Agnarsson) *Graph Theory: Modeling, Applications, and Algorithms*, Pearson International Edition, xvii + 446 pp., 2007.
18. (with Paul Goransson) *Secure Roaming in 802.11 Networks*, Elsevier Science and Technical Book Group, xxiv + 343 pp., 2007.

19. *Technical Writing, Presentation Skills, and Online Communication: Professional Tools and Insights*, IGI Global, xxi + 225 pages, 2012.

#### Refereed Book Chapters

20. “Towards Understanding the Effective Parallelization of Sequential Algorithms” for *Computer Science: Research and Applications*, Plenum Press, Chapter 30, pages 395–406, 1992.
21. Invited book chapter “Polynomial Completeness and Parallel Computation” for *Synthesis of Parallel Algorithms*, Morgan Kaufmann Publishers, Chapter 21, pages 901–953, 1993.
22. (with H. James Hoover) Invited book chapter “Parallel Computation: Models and Complexity Issues” for *CRC Handbook of Algorithms and Theory of Computation*, CRC Press, Chapter 45, pages 45.1–45.26, 1999.
23. (with H. James Hoover) Invited book chapter “Parallel Computation: Models and Complexity Issues” for *CRC Algorithms and Theory of Computation Handbook: General Concepts and Techniques*, CRC Press, Second Edition, Chapter 28, pages 28.1–28.28, 2010.
24. (with Sanpawat Kantabutra) Invited book chapter “Introduction to Clustering: Algorithms and Applications” for *Dynamic and Advanced Data Mining for Progressing Technological Development*, IGI Global, Chapter 10, pages 224–254, 2010.

#### Refereed Journal Articles

25. Ordered Vertex Removal and Subgraph Problems. *Journal of Computer and System Sciences*, 39(3):323–342, 1989.
26. (with Larry Snyder) Achieving Speedups for APL on an SIMD Distributed Memory Machine. *International Journal of Parallel Programming*, 19(2):111–127, 1991.
27. A Model Classifying Algorithms as Inherently Sequential with Applications to Graph Searching. *Information and Computation*, 97(2):133–149, 1992.
28. The Parallel Complexity of Approximation Algorithms for the Maximum Acyclic Subgraph Problem. *Mathematical Systems Theory: An International Journal on Mathematical Computing Theory*, 25(3):161–175, 1992.
29. (with Pilar de la Torre and Teresa Przytycka) Optimal Tree Ranking is in  $\mathcal{NC}$ . *Parallel Processing Letters*, 2(1):31–41, 1992.
30. Breadth-Depth Search is  $\mathcal{P}$ -Complete. *Parallel Processing Letters*, 3(3):209–222, 1994.
31. (with Jonathan Machta) The Parallel Complexity of Growth Models. *Journal of Statistical Physics*, 77(3/4):755–781, 1994.

32. (with Pilar de la Torre and Alex Schäffer) Optimal Edge Ranking of Trees in Polynomial Time. *Algorithmica*, 13(6):592–618, 1995.
33. (with Rossella Petreschi) Cubic Graphs. *ACM Computing Surveys*, 27(4):471–495, 1995.
34. (with Jonathan Machta) The Computational Complexity of Generating Random Fractals. *Journal of Statistical Physics*, 82(5/6):1299–1326, 1996.
35. Subtree Isomorphism is in DLOG for Nested Trees. *International Journal of Foundations of Computer Science*, 7(2):161–167, 1996.
36. (with Jonathan Machta) Parallel Computational Complexity and Logical Depth in Statistical Physics. *InterJournal of Complex Systems*, BArticle 57, [www.interjournal.org](http://www.interjournal.org), 1996.
37. (with Kenneth Moriarty and Jonathan Machta) Parallel Algorithm and Dynamic Exponent for Diffusion-limited Aggregation. *Physical Review*, E55:6211–6218, 1997.
38. (with Kenneth Moriarty and Jonathan Machta) Parallel Computational Complexity in Statistical Physics. *InterJournal of Complex Systems*, BArticle 94, [www.interjournal.org](http://www.interjournal.org), 1997.
39. (with Rossella Petreschi) Computing Prüfer Codes Efficiently in Parallel. *Discrete Applied Mathematics*, 102(3):205–222, 2000.
40. (with Carme Àlvarez) A Compendium of Problems Complete for Symmetric Logarithmic Space. *Computational Complexity*, 9:73–95, 2000.
41. (with Geir Agnarsson and Magnus Halldórsson) On Powers of Chordal Graphs and Their Colorings. *Congressus Numerantium*, 144:41–65, 2000.
42. (with Chris Williams) Parallel Computing in Engineering, invited article. *Journal of the University of Technology and Management Malaysia*, 1(2):10–14, 2004.
43. (with Chris Williams) Ten Computer Science Breakthroughs, invited article. *Journal of the University of Technology and Management Malaysia*, 4(2):62–74, 2006.
44. Biography of Dr. Larry Snyder. *Scientific and Practical Computing Journal*, 1(2):71–73, 2007.
45. (with Sanpawat Kantabutra) On the Parallel Complexity of Hierarchical Clustering and CC-Complete Problems, *Complexity*, 14(2):18–28, 2008.
46. An Overview of Some Issues Relating to the Accreditation Process, invited special article, *Chiang Mai Journal of Science*, 35(3):391–398, 2008.
47. (with Chris Williams) Large-Scale Software Systems: Skills and Tools for Developers, invited article, *Journal of Management and Science*, 6(2):80–103, 2008.



48. Setting Up and Maintaining a Strong Industrial Advisory Board. *Scientific and Practical Computing Journal*, invited article, 3(2):23–34, 2010.
49. (with Geir Agnarsson and Sanpawat Kantabutra) The Complexity of the Evolution of Graph Labelings, *Thai Journal of Mathematics*, 8(1):21–42, 2010.
50. Accurate and Efficient Accreditation Document Preparation, *Journal of Management and Science*, 8(1):113–20, 2010.
51. Wellness, Social Networking, and Algorithms. *Chiang Mai Journal of Science*, special issue, invited article, 38:17–30, 2011.
52. (with Sanpawat Kantabutra and Pattama Longani) A Mobility Model for Studying Wireless Communication and the Complexity of Problems in the Model, invited article for special issue of *Networks*, 59(3):320–330, 2012.
53. (with Chris Brown et al.) Anatomy, Dissection, and Mechanics of an Introductory Cyber-Security Class’s Curriculum at the United States Naval Academy. *ASEE Computers in Education Journal*, 3(3):63–80, 2012.
54. (with Andrew Phillips, John Schultz, David Stahl, and Sarah Standard) Network Reconnaissance, Attack, and Defense Laboratories for an Introductory Cyber-Security Course. *ACM Inroads*, 4(3):52–64, 2013.
55. (with Sanpawat Kantabutra) Survey of Clustering: Algorithms and Applications. Invited article, special issue of the *International Journal of Information Retrieval Research*, 3(2):1–29, 2013.
56. (with Allen Parrish and Andrew Phillips) Is It Time for ABET Cyber-Security Criteria?, *ACM Inroads*, 5(3):44–48, 2014.
57. (with Geir Agnarsson and Sanpawat Kantabutra) The complexity of cyber attacks in a new layered-security model and the maximum-weight, rooted-subtree problem, *Cybernetica*, 22(3):591–612, 2016.
58. (with Geir Agnarsson and Sanpawat Kantabutra) The Structure of Rooted Weighted Trees Modeling Layered Cyber-Security Systems, *Cybernetica*, 22(4):735–769, 2016.
59. (with Rajendra Raj) ABET’s Cybersecurity Accreditation: History, Accreditation, and Status. *ACM Inroads*, 13(4):14–21, 2022.
60. (with Kauna Mufeti) Evaluation of ABET Accreditation Path for a Representative African Undergraduate Computer Science Programme, *African Journal of Information and Communication*, Issue 30, 20 pages, 2022.
61. (with Kauna Mufeti) Combating Cybercrime by Spawning Two-Year, ABET-Accreditable Programs in Cybersecurity in African Context, *ACM Inroads*, to appear 2023.

*In Refereed/Reviewed Collections*

62. (with Larry Snyder) Achieving Speedups for APL on an SIMD Parallel Computer. *APL Quote Quad*, 18(4):3–8, 1988.
63. (with Carme Àlvarez) A Compendium of Problems Complete for Symmetric Logarithmic Space. See 40. *Electronic Colloquium on Computational Complexity*, [www.eccc.uni-trier.de/eccc](http://www.eccc.uni-trier.de/eccc), TR96-039, 25 pages, July 1996.
64. (with Ellen Hepp) *Online Learning Center* to Accompany *In-line/On-line: Fundamentals of the Internet and the World Wide Web*, McGraw-Hill, 2001.
65. (with Sergio De Agostino) *Automata Theory*, invited article, *Encyclopedia of Information Systems*, Academic Press, 47–63, 2003.
66. (with Daniel Liang) *Object-Oriented Programming*, invited article, *Encyclopedia of Information Systems*, Academic Press, 347–361, 2003.
67. (with Ellen Hepp) *The Internet*, invited article, *Encyclopedia of Information Systems*, Academic Press, 667–681, 2003.
68. *Engaging Your Industrial Advisory Board*, invited article, ABET Academic Newsletter, [www.abet.org/Academic-Newsletter/index.shtml](http://www.abet.org/Academic-Newsletter/index.shtml), 2011.

*In Other Collections*

69. (with Ellen Hepp) *In-line/On-line: Class*. A classroom Web presentation that can be customized by an instructor using *In-line/On-line: Fundamentals of the Internet and World Wide Web*, McGraw-Hill, 1998.
70. (with Ellen Hepp) *In-line/On-line: Book*. A Web presentation supplementing *In-line/On-line: Fundamentals of the Internet and World Wide Web*, McGraw-Hill, 1998.
71. (with H. James Hoover, Satoru Miyano, W. Larry Ruzzo, Shuji Shiraishi, and Takayoshi Shoudai) *The Parallel Computation Project*:  
     Volume I: Fundamentals of Parallel Computation  
     Volume II: A Compendium of Problems Complete for  $P$   
     Volume III: A Compendium of Problems in the Class  $NC$ , 2000.
72. (with Chris Williams) *Understanding Practical Unix, Online Center*, Franklin, Beedle & Associates, Inc., 2001.
73. (with Ellen Hepp and Chris McCarthy) PowerPoint Lecture Notes supplementing *In-line/On-line: Fundamentals of the Internet and World Wide Web*, McGraw-Hill, 690 pages, 2001.

74. Sequential and Parallel Algorithms for Problems on Trees. Abstract in the *Proceedings of the 3rd Joint Conference on Computer Science and Software Engineering*, King Mongkut's Institute of Technology, North Bangkok, Thailand, 2006.
75. Ten Interesting Computer Scientists and Ten Interesting Results in Computer Science. Abstract in the *Proceedings of the 3rd Joint Conference on Computer Science and Software Engineering*, King Mongkut's Institute of Technology, North Bangkok, Thailand, 2006.
76. (with Sanpawat Kantabutra) *A Mobility Model for Wireless Communications*, section 11.3 of *Secure Roaming in 802.11 Networks* by P. Goransson and R. Greenlaw, pages 307–312, Elsevier Science and Technical Book Group, 2007.
77. Dynamic-Matching Problems in the Context of Wellness and Social Networking. Abstract in the *Proceedings of the XIII Royal Golden Jubilee PhD Congress*, Pattaya, Thailand, 2012.
78. On a University-Wide Required Cyber-Security Course. Abstract in the *National Institute for Standards and Technology's 4th Annual Shaping the Future of Cybersecurity Education Workshop*, Gaithersburg, Maryland, 2013.

#### *Dissertation*

79. The Complexity of Parallel Computations: Inherently Sequential Algorithms and P-Complete Problems. PhD Dissertation, University of Washington, 1988.

#### *Refereed Conference Papers*

80. The Parallel Complexity of Stack versus Queue Breadth-First Search. *Second IEEE Symposium on Parallel and Distributed Processing*, Dallas, Texas, pages 834–837, 1990.
81. Towards Understanding the Effective Parallelization of Sequential Algorithms. *Eleventh SCCC International Conference on Computer Science*, Santiago, Chile, pages 391–403, 1991. Preliminary version of 20 and 28.
82. (with Pilar de la Torre) Super Critical Tree Numbering and Optimal Tree Ranking are in NC. *Third IEEE Symposium on Parallel and Distributed Processing*, Dallas, Texas, pages 767–773, 1991.
83. (with Jonathan Machta) The Parallel Complexity of Algorithms for Pattern Formation Models. *Canada/France Conference on Parallel Computing*, Montreal, Canada. Lecture Notes in Computer Science, volume 805, Springer-Verlag, pages 23–34, 1994.
84. (with Jonathan Machta) The Parallel Complexity of Eden Growth, Solid-on-Solid Growth, and Ballistic Deposition. *Second European Symposium on Algorithms*, Utrecht, The Netherlands. Lecture Notes in Computer Science, volume 855, Springer-Verlag, pages 436–447, 1994.

85. (with Jonathan Machta) The Parallel Complexity of Randomized Fractals. *Third International Workshop on Parallel Algorithms for Irregularly Structured Problems*, Santa Barbara, California. Lecture Notes in Computer Science, volume 1117, Springer-Verlag, pages 351–356, 1996.
86. (with Jonathan Machta) Parallel Computational Complexity and Logical Depth in Statistical Physics. See 36. *Fourth Workshop on Physics and Computation: PhysComp96*, New England Complex Systems Institute, Boston, Massachusetts, pages 201–207, 1996.
87. (with Kenneth Moriarty and Jonathan Machta) Parallel Computational Complexity in Statistical Physics. See 38. *International Conference on Complex Systems*, Nashua, New Hampshire, New England Complex Systems Institute, 1997.
88. (with Rossella Petreschi) Computing Prüfer Codes Efficiently in Parallel. *Proceedings of DMTCS'99: Discrete Mathematics and Theoretical Computer Science & CATS'99: Computing: The Australasian Theory Symposium (Combinatorics, Computation, & Logic)*, University of Auckland, Auckland, New Zealand. Australian Computer Science Communications, volume 21, number 3, Springer-Verlag, pages 202–216, 1999. Preliminary version of 39.
89. (with Magnus Halldórsson and Rossella Petreschi) On Computing Prüfer Codes and Their Corresponding Trees Optimally in Parallel (Extended Abstract). *Proceedings of Journées de l'Informatique Messine (JIM 2000)*, Université de Metz, France. Laboratoire d'Informatique Théorique et Appliquée, pages 125–130, 2000.
90. (with Charles Shipley and James Wogulis) Fast Sequential and Parallel Algorithms for Label Selection to Obtain Space Efficient Implementations in a Software Configuration Management System. *International Conference on Parallel Computing in Electrical Engineering*, Québec, Canada, pages 43–48, 2000.
91. (with Sanpawat Kantabutra) Bottom-Up Hierarchical Clustering is CC-Complete. *2007 Electrical/Electronics, Computer, Telecommunications, and Information Technology Conference*, Chiang Rai, Thailand, pages 1264–1267, 2007.
92. (with Geir Agnarsson and Sanpawat Kantabutra) The Graph Relabeling Problem and Its Variants. *The Fifth International Conference in Electrical Engineering/Electronics, Computer, Telecommunications, and Information Technology*, Krabi, Thailand, pages 49–52, 2008.
93. (with Geir Agnarsson and Sanpawat Kantabutra) The Complexity of the Evolution of Graph Labelings. *The 9th International Conference of Software Engineering, Artificial Intelligence, Networking, and Parallel/Distributed Computing*, Phuket, Thailand, pages 79–84, 2008.
94. (with David Cordes, Han Reichgelt, Jim Leone, Barbara Price, and Gayle Yaverbaum) Accreditation in Online and Hybrid Learning Environments. *ABET Symposium*, Las Vegas, Nevada, 2010.

95. ABET-Accreditation Timeline. *ABET Symposium*, Las Vegas, Nevada, 17 pages, 2010.
96. An Activity Profile Model and Dynamic-Matching Results for Social Networks Regarding Wellness Applications. *The Seventh International Conference in Electrical Engineering/Electronics, Computer, Telecommunications, and Information Technology*, Chiang Mai, Thailand, 5 pages, 2010.
97. (with Chris Brown et al.) Developing and Implementing an Institution-Wide Introductory Cyber-Security Class in Record Time. *The 50th Annual ACM Southeast Conference*, pages 95–100, Tuscaloosa, Alabama, 2012.
98. (with Chris Brown et al.) Anatomy, Dissection, and Mechanics of an Introductory Cyber-Security Class’s Curriculum at the United States Naval Academy. *17th Annual Conference on Innovation and Technology in Computer Science Education*, pages 303–308, Haifa, Israel, 2012.
99. (with Andrew Phillips, John Schultz, David Stahl, and Sarah Standard) Network Reconnaissance, Attack, and Defense Laboratories for an Introductory Cyber-Security Course. *The 51st Annual ACM Southeast Conference*, 5 pages, Savannah, Georgia, 2013.
100. (with Christopher Brown, Zachary Dannelly, Andrew Phillips, and Sarah Standard) Using a Message Board as a Teaching Tool in an Introductory Cyber-Security Course. *The ACM Special Interest Group on Computer Science Education Conference*, pages 308–13, Kansas City, Missouri, 2015.
101. (with Kauna Mufeti) Seeking ABET Accreditation for Computing Programmes in Africa: A Case Study of UNAM’s BSc in Computer Science, *1st Zimbabwe Conference on Information Communication & Technology (ZCICT)*, 7 pages, Harare, Zimbabwe, 2022.
102. (with Kauna Mufeti) Reducing Cyber Crime in Africa through Education, in the *World Engineering Education Forum and The Global Engineering Deans Council Conference*, pages 241–6, Cape Town, South Africa, 2022.
103. Impacts of the COVID-19 Pandemic on Sub-Saharan African Third-Year Students Studying Computer Science and Information Technology, in the *VII IEEE World Engineering Education Conference*, 6 pages, Bogotá, Columbia, 2023.

*Conference Papers (Selected by Program Committee)*

104. (with David Notkin et al.) Experiences with Poker. *ACM SIGPLAN Symposium on Parallel Programming: Experience with, Applications, Languages, and Systems*, New Haven, Connecticut, pages 10–20, 1988. SIGPLAN NOTICES 23(9):10–20, 1988.

105. (with Pilar de la Torre and Alex Schäffer) Optimal Edge Ranking of Trees in Polynomial Time (Extended Abstract). *4th ACM-SIAM Symposium on Discrete Algorithms*, Austin, Texas, pages 138–144, 1993. Preliminary version of 32.
106. (with Geir Agnarsson and Magnus Halldórsson) On Chordal Graphs and Chromatic Polynomials (Abstract). *Thirty-First Southeastern International Conference on Combinatorics, Graph Theory, and Computing 2000*, Boca Raton, Florida, 2000. Preliminary version of 41.
107. Accurate and Efficient Accreditation Documentation Preparation. *Best Assessment Processes V: A Working Symposium*, Rose-Hulman Institute of Technology, Terre Haute, Indiana, pages 45–52, 2003.
108. Leading a Self-Study Preparation. *Best Assessment Processes VI: A Working Symposium*, Rose-Hulman Institute of Technology, Terre Haute, Indiana, pages 47–54, 2004.
109. (with Sanpawat Kantabutra) A Mobility Model for Studying Wireless Communications, *The 15th International Conference of Forum for Interdisciplinary Mathematics on Interdisciplinary Mathematical & Statistical Techniques*, invited paper, Shanghai, China, pages 37–38, 2007.
110. Utilizing an Advisory Industrial Board in the Accreditation Process. *Best Assessment Processes Symposium X*, 9 pages, Atlanta, Georgia, 2008.
111. Setting up and Maintaining a Strong Industrial Advisory Board, invited submission, *Best Assessment Processes XI*, 9 pages, Indianapolis, Indiana, 2009, revision of 110.
112. Accreditation in Applied Science, Computing, Engineering, and Technology. *International Conference on Learning and Teaching, and EDCUA 2009*, 11 pages, Bangkok, Thailand, 2009.
113. Wellness, Social Networking, and Algorithms. *International Computer Science and Engineering Conference, Breaking the Boundaries: Multidisciplinary Computing and Innovation*, 19 pages, Chiang Mai, Thailand, 2010.
114. (with Geir Agnarsson and Sanpawat Kantabutra) The complexity of cyber attacks in a new layered-security model and the maximum-weight, rooted-subtree problem, *5th Annual Global Innovation and Knowledge Academy, GIKA 2015*, Valencia, Spain, appeared in *New Information and Communication Technologies for Knowledge Management Organizations*, 64–76, Springer International Publishing, 2015.
115. The Role of Artificial Intelligence in Scientific Publications, Abstract in the *Ethics and Justice for a Sustainable World Conference*, Zululand University, South Africa, 2023.
116. Editing and Fact Checking: The New Skills Required of Students Using Artificial-Intelligence Generative Writing Tools, Abstract in the *Biannual Conference on Innovation in Learning and Teaching in Higher Education*, Windhoek, Namibia, 2023.

*Other Publications and Manuscripts*

117. (with Pilar de la Torre and Alex Schäffer) A Note on Deogun and Peng's Edge Ranking Algorithm. Technical Report TR 93-13, University of New Hampshire, 11 pages, 1993.
118. (with Ellen Hepp and Joshua Jones) *Fundamentals of the World Wide Web*, manuscript, xiii + 256 pp., 1999.
119. (with Ellen Hepp) *The Practical Guide to Using E-Mail*, manuscript, ix + 109 pp., 1999.
120. (with Greg Geller, Steve Jodis, Ben Page, and Chris Williams) *Large-Scale Systems*, manuscript, x + 170, 2007.
121. *The Guide to ABET Accreditation*, unfinished manuscript, xviii + 95 pages.
122. (with Christopher Brown, Zachary Bannelly, Andrew Phillips, and Sarah Standard) Using a Message Board as Teaching Tool in an Introductory Cybersecurity Class, 14 pages, 2016.
123. (with Rafael Puente and Adolfo Diaz) *Computer Literacy*, 50 pages, complete book outline, 2022.

*Submitted Journal Papers*

124. (with Nopadon Juneam) Spawning Four-Year, ABET-Accreditable Programs in Cybersecurity from Existing Computer Science Programs in Thailand, 18 pages, 2023.
125. Fulbrights to Iceland, Namibia, Spain, and Thailand, 6 pages, 2023.
126. (with Kauna Mufeti) Spawning ABET-Accreditable Cybersecurity Programs from Existing African Computer Science Programs to Fight Cybercrime, 15 pages, 2023.

*Works in Preparation*

127. (with Rafael Puente and Adolfo Diaz) Spawning Four-Year, ABET-Accreditable Programs in Cybersecurity from Existing Computer Science Programs in Latin America, 13 pages.
128. (with Kauna Mufeti) Towards a Model Curriculum for a Postgraduate Programme in Cybersecurity, abstract.
129. (with Justina Amakali and Kauna Mufeti) Guidelines for Managing Generative Artificial Intelligence Writing Tools in Computing Curricula in African Universities, 10 pages.
130. (with Kauna Mufeti and Saavi Mwatilifange) Experiences with Artificial Intelligence Generative Writing Tools in Computing Curricula, 14 pages.

## GRANTS/FELLOWSHIPS/CONTRACTS

1. *The Complexity of Edge Ranking*. Summer Faculty Fellowship, University of New Hampshire, 1992. \$3,500. I declined this award to accept a National Science Foundation grant.
2. *The Complexity of Parallel Computations*. Research Initiation Award, National Science Foundation, 1992–96. \$58,000.
3. *Research in Parallel Approximation Algorithms*. Fulbright Scholarship, Senior Research Award, 1995. \$15,000.
4. *Investigations in Parallel Computing*. Humboldt Fellowship, Research Award, 1995–96. \$30,000. I declined this award to accept a Senior Fulbright Scholarship.
5. *Research in Parallel Computing*. Spanish Fellowship for Scientific and Technical Investigations, 1996. \$30,000.
6. *Parallel Computation*. German Fulbright Foundation, Visiting Scholar, April 1996. \$2,000.
7. *Parallel Algorithms*. Visiting Fellow University of Rome *La Sapienza*, July 1996. \$2,500.
8. *Graph Algorithms*. Visiting Fellow University of Rome *La Sapienza*, January 1998. \$2,500.
9. *Network Validation Systems*. Qosnetics Corporation, 1999–2000. \$70,000.
10. *Research in Parallel Algorithms with a Focus on Problems Restricted to Trees*. Fulbright Scholarship, Senior Research Award, 1999. \$8,500.
11. *Research in Genome Informatics*. Japan Society for the Promotion of Science Invitation Fellowship for Research in Japan, January 2000. \$14,000.
12. *Summer Program for High School Teachers*. Yamacraw, State of Georgia, 2000–01. \$60,000.
13. *Yamacraw Project*. Awarded to Armstrong Atlantic State University. I wrote the proposal for this project. State of Georgia, 2000–04. \$2,723,000.
14. (with Barbara Price and Letty Shearer) *VeriSign/Savannah ICAPP* (Intellectual Capital and Partnership Program), State of Georgia, 2003–05. \$2,400,000.
15. (with Mark Burge) *Clearing a Path for Talented and Needy Students to Pursue Careers in Computer Science and Information Technology*. National Science Foundation, 2002–07. \$393,200.



16. (with Mark Burge and Chris McCarthy) *Supporting Talented and Needy Students in Computer Science, Information Technology, and Mathematics*. National Science Foundation, 2004–09. \$224,098.
17. *Curriculum and Faculty Development in Computer Science, and Advances in Parallel Computing*. Fulbright Scholarship, Senior Lecturing/Research Award, 2005. \$10,000.
18. (with Michael Donahue and Stephen Jodis) *Relocatable C3 for Gulf Range Support*. Prologic Systems, 2006. \$100,000.
19. (with Michael Donahue and Stephen Jodis) *Range Tactical Data Link and Relay Capability*. Prologic Systems, 2007. \$150,000.
20. *Sasakawa Fellowship for Japanese Studies*. National Faculty Development Institute sponsored by the American Association of State Colleges and Universities. San Diego State University, California, June 2007. \$6,500.
21. (with Chris McCarthy and Suzy Carpenter) *Empowering Financially Disadvantaged Students with Talents in Biology, Chemistry, Computer Science, Information Technology, Mathematics, and Physics*. National Science Foundation, 2007–12. \$483,760.
22. (with Sanpawat Kantabutra) *Royal Golden Jubilee Scholarship* for Pattama Longani. Wireless Networking Models, 2009–11. \$47,000.
23. (with Sanpawat Kantabutra) *Royal Golden Jubilee Scholarship* for Nopadon Juneam. Complexity Theory, 2011–13. \$73,000.
24. *Capacity Building and Aiding Workforce Development in Cyber-Security and Computing in Namibia*. Fulbright Scholarship, Senior Professor Award, 2021–23. \$121,450.

## TALKS

### *Invited Distinguished Speaker*

1. ALCOM Summer School on Complexity Theory. Centre de Recerca Matemàtica; Barcelona, Spain, September 1994. *Topics in Parallel Complexity Theory*.
2. ALCOM Summer School on Complexity Theory. Centre de Recerca Matemàtica; Barcelona, Spain, September 1994. *P-Complete Problems*.
3. The 12th Clemson Mini-Conference on Discrete Mathematics. Clemson, South Carolina, September 1997. *Topics in Parallel Computation and P-Completeness Theory*.
4. School of Information Communication Technology, University of Technology and Management Malaysia, Information Technology Seminar, Kuala Lumpur, Malaysia, January 2004. *Parallel Algorithms in Graph Theory*.

5. Leadership, Education, and Development (LEAD) Conference, Armstrong Atlantic State University, Savannah, Georgia, April 2004. *The Fastest Hike: A Lesson in Leadership.*
6. Commencement Speech. University of Technology and Management Malaysia, Kuala Lumpur, Malaysia, February 2006. *International Collaborations in Education.*
7. Raymond Greenlaw Two-Day Seminar on Parallel Computing, hosted by Chiang Mai University, Chiang Mai, Thailand, March 2006. The following talks were given:
  - (a) *Parallel Computation and P-Completeness Theory: Part I*
  - (b) *On Accreditation of Computing Programs*
  - (c) *Parallel Computation and P-Completeness Theory: Part II*
  - (d) *Parallel Algorithm Design for Problems on Trees: Part I*
  - (e) *Ten Breakthroughs in Computer Science*
  - (f) *Parallel Algorithm Design for Problems on Trees: Part II*
  - (g) *Ten Interesting Computer Scientists*
14. The 3rd Joint Conference on Computer Science and Software Engineering, King Mongkut's Institute of Technology, North Bangkok, Thailand, June 2006. The following talks were given:
  - (a) *Ten Breakthroughs in Computer Science*
  - (b) *Sequential and Parallel Algorithms for Some Problems on Trees*
  - (c) *Ten Interesting Computer Scientists*
17. Opening Welcome Speech. Savannah Ogeeche Regional Science & Engineering Fair's Awards Program, Savannah, Georgia, March 2007. *On the Importance of Science.*
18. The 22th Clemson Mini-Conference on Discrete Mathematics. Clemson, South Carolina, October 2009. *The Complexity of the Evolution of Graph Labeling.*
19. Opening Keynote Speaker. International Computer Science and Engineering Conference, Breaking the Boundaries: Multidisciplinary Computing and Innovation, Chiang Mai, Thailand, November 2010. *Social Networking, Wellness, and Algorithms.*
20. Keynote. The International Conference on Emerging Trends in Computing and Engineering Applications. Mutah University – Dead Sea, Karak, Jordan, November 2022. *On ABET Accreditation.*

*Panels and Workshops*

21. "Hamiltonian Paths and Circuits in Interval Graphs." *Complexity, Logic, and Recursion Theory* (COLORET) *Workshop*, UPC; Barcelona, Spain, March 1996.
22. *Yamacraw Applications in Southeast Georgia*. Wireless Computing Symposium, Savannah, Georgia, May 2001.
23. "Accurate and Efficient Accreditation Documentation Preparation: A Workshop." *Best Assessment Processes V: A Working Symposium*, Rose-Hulman Institute of Technology, Terre Haute, Indiana, April 2003.
24. *Faculty Evaluation*. Armstrong Atlantic State University, Savannah, Georgia, February 2005.
25. *Accreditation in Online and Hybrid Learning Environments*. ABET Symposium, Las Vegas, Nevada, April 2010.
26. (with Kay Schulze) *Workshop on ABET's Harmonized Criteria*. Division of Engineering and Weapons, and Division of Mathematics and Science, United States Naval Academy, Annapolis, Maryland, September 2011.
27. *Graduate Education Opportunities*. Naval Academy Science and Engineering Conference, Annapolis, Maryland, November 2013.
28. (with Andrew Phillips et al.) *CEP SIGCSE Workshop: Validating the Draft Cybersecurity Accreditation Criteria*. Special Interest Group on Computer Science(Education Symposium, Memphis, Tennessee, March 2016.
29. (with Andrew Phillips et al.) *An Interactive Workshop on Draft Program Criteria for Cyber Sciences*. ABET Symposium, Hollywood, Florida, April 2016.
30. (with Petrina Johannes and Martin Schneider) "Approaches and Opportunities for Enabling Collaboration and Overcoming Barriers and Misperceptions in Research and Education" at the *Partnerships of the Future: Forging US-Namibian STEM and Educational Networks Conference*, Windhoek, Namibia, August 2023.
31. (with Kauna Mufeti and Justina Amakali) The Perils and Opportunities of Chat-GPT in Learning and Teaching in Higher Education. *Biannual Conference on Innovation in Learning and Teaching in Higher Education*, Windhoek, Namibia, November 2023.

#### Talks Presented at Conferences

32. "The Parallel Complexity of Stack versus Queue Breadth-First Search." *Second IEEE Symposium on Parallel and Distributed Processing*, Dallas, Texas, December 1990.
33. "Towards Understanding the Effective Parallelization of Sequential Algorithms." *Eleventh SCCC International Conference on Computer Science*, Santiago, Chile, October 1991.

34. "The Parallel Complexity of Algorithms for Pattern Formation Models." *Canada/France Conference on Parallel Computing*, Montreal, Canada, May 1994.
35. "The Parallel Complexity of Eden Growth, Solid-on-Solid Growth, and Ballistic Deposition." *Second European Symposium on Algorithms*, Utrecht, The Netherlands, September 1994.
36. "Computing Prüfer Codes Efficiently in Parallel." *DMTCS'99: Discrete Mathematics and Theoretical Computer Science & CATS'99: Computing: The Australasian Theory Symposium*, University of Auckland; Auckland, New Zealand, January 1999.
37. "In-line/On-line: One Tested Approach to Offering a Paperless Course." *Fourth Annual Valdosta State University Mathematics Technology Conference*, Valdosta, Georgia, February 1999.
38. "On Computing Prüfer Codes and Their Corresponding Trees Optimally in Parallel." *Combinatorics and Algorithms Seminar*, University of Iceland; Reykjavík, Iceland, June 1999.
39. "Hiring Faculty in Computer Science." *First Yamacraw Conference Savannah*, Savannah, Georgia, May 2000.
40. "On Computing Prüfer Codes and Their Corresponding Trees Optimally in Parallel." *Journées de l'Informatique Messine (JIM 2000)*, Université de Metz, Metz, France, May 2000.
41. "Leading a Self-Study Preparation." *Best Assessment Processes VI: A Working Symposium*, Rose-Hulman Institute of Technology, Terre Haute, Indiana, March 2004.
42. "Bottom-Up Hierarchical Clustering is CC-Complete." *2007 Electrical/Electronics, Computer, Telecommunications, and Information Technology Conference*, Chiang Rai, Thailand, May 2007.
43. "A Mobility Model for Studying Wireless Communications." *The 15th International Conference on Interdisciplinary Mathematical & Statistical Techniques*, Shanghai, China, May 2007.
44. "Utilizing an Industrial Advisory Board in the Accreditation Process." *Best Assessment Processes X*, ABET, Atlanta, Georgia, April 2008.
45. "Setting up and Maintaining a Strong Industrial Advisory Board." *Best Assessment Processes XI*, ABET, Indianapolis, Indiana, April 2009.
46. "Accreditation in Applied Science, Computing, Engineering, and Technology." *International Conference on Learning and Teaching*, Bangkok, Thailand, October 2009.

47. “ABET-Accreditation Timeline.” *The ABET Symposium*, Las Vegas, Nevada, April 2010.
48. “An Activity Profile Model and Dynamic-Matching Results for Social Networks Regarding Wellness Applications.” *The Seventh International Conference in Electrical Engineering/Electronics, Computer, Telecommunications, and Information Technology*, Chiang Mai, Thailand, May 2010.
49. “Cyber Security at the United States Naval Academy.” *Careers in Cyber Security Workshop*, John Hopkins University, Columbia, Maryland, September 2011.
50. “Dynamic Matching Problems in the Context of Wellness and Social Networking.” *Royal Golden Jubilee International Congress*, Pattaya, Thailand, April 2012.
51. “Anatomy, Dissection, and Mechanics of an Introductory Cyber-Security Class’s Curriculum at the United States Naval Academy.” *The 17th Annual Conference on Innovation and Technology in Computer Science Education*, Haifa, Israel, July 2012.
52. On a University-Wide Required Cyber-Security Course. *National Institute for Standards and Technology’s 4th Annual Shaping the Future of Cybersecurity Education Workshop*, Gaithersburg, Maryland, September 2013.
53. Seeking ABET Accreditation for Computing Programmes in Africa: A Case Study of UNAM’s BSc in Computer Science. *1st Zimbabwe Conference on Information Communication & Technology (ZCICT)*. Harare, Zimbabwe, November 2022.
54. Reducing Cyber Crime in Africa through Education. *World Engineering Education Forum and The Global Engineering Deans Council Conference*, Cape Town, South Africa, November 2022.
55. Impacts of the COVID-19 Pandemic on Sub-Saharan African Third-Year Students Studying Computer Science and Information Technology. *VII IEEE World Engineering Education Conference*, Bogotá, Columbia, March 2023.
56. The Role of Artificial Intelligence in Scientific Publications. *Ethics and Justice for a Sustainable World Conference*, Zululand University, South Africa, June 2023.
57. Editing and Fact Checking: The New Skills Required of Students Using Artificial-Intelligence Generative Writing Tools. *Biannual Conference on Innovation in Learning and Teaching in Higher Education*, Windhoek, Namibia, November 2023.
58. Accrediting Cybersecurity Programs. *Lightning Talks Workshop: Boise State University and University of Namibia*, online, November 2023.

#### Invited Talks

59. *Problems that are Hard to Parallelize*. Department of Computer Science, University of Oregon, Eugene, Oregon, March 1989.

60. *The Complexity of Parallel Computations*. Department of Computer Science, University of Pittsburgh, Pittsburgh, Pennsylvania, March 1989.
61. *Identification of Inherently Sequential Algorithms*. Department of Computer Science, Colorado State University, Fort Collins, Colorado, April 1989.
62. *Identification of Inherently Sequential Algorithms*. Department of Computer Science, University of Rhode Island, South Kingstown, Rhode Island, April 1989.
63. *Identification of Inherently Sequential Algorithms*. Department of Computer Science, Tufts University, Medford, Massachusetts, April 1989.
64. *Identification of Inherently Sequential Algorithms*. Department of Computer Science, University of New Hampshire, Durham, New Hampshire, April 1989.
65. *Search Problems that are P-Complete*. Department of Computer Science, University of Rhode Island, South Kingstown, Rhode Island, October 1990.
66. *The Parallel Complexity of Approximation Algorithms for the Maximum Acyclic Subgraph Problem*. Department of Computer Science, University of Maine, Orono, Maine, September 1991.
67. *Optimal Edge Ranking of Trees in Polynomial Time*. Department of Computer Science, University of Massachusetts at Amherst, Amherst, Massachusetts, November 1992.
68. *Tree Ranking*. Department of Computer Science, Boston University, Boston, Massachusetts, March 1993.
69. *The Parallel Complexity of Algorithms for Pattern Formation Models*. Department of Computer Science, University of Hong Kong, Hong Kong, June 1994.
70. *Tree Ranking Results*. Department of Computer Science, University of Hong Kong, Hong Kong, June 1994.
71. *Parallel Computation and P-Complete Problems*. Department of Computer Science, University of Iceland, Reykjavík, Iceland, October 1994.
72. *Tree Ranking Results*. Departament de Llenguatges i Sistemes Informàtics, Universitat Politècnica de Catalunya, Barcelona, Spain, November 1995.
73. *Node and Edge Ranking of Trees*. Wilhelm-Schickard-Institut für Informatik, Universität Tübingen, Tübingen, Germany, April 1996.
74. *Topics in Parallel Computation and P-Completeness Theory*. Wilhelm-Schickard-Institut für Informatik, Universität Tübingen, Tübingen, Germany, April 1996.
75. *Node and Edge Ranking of Trees*. Fakultät für Informatik, Universität Ulm, Ulm, Germany, April 1996.

76. *Node and Edge Ranking of Trees*. Institut für Informatik, Der Technischen Universität München, Munich, Germany, April 1996.
77. *Topics in Parallel Computation and P-Completeness Theory*. Departamento de Ingeniería de Sistemas Telemáticos, Universidad de Madrid, Madrid, Spain, May 1996.
78. *A Compendium of Problems Complete for Symmetric Logarithmic Space*. Departament de Llenguatges i Sistemes Informàtics, Universitat Politècnica de Catalunya, Barcelona, Spain, June 1996.
79. *Node and Edge Ranking of Trees*. Dipartimento di Scienze dell'Informazione, Università degli Studi di Roma *La Sapienza*, Rome, Italy, July 1996.
80. *Node and Edge Ranking*. Department of Computer Science, Tennessee Technological University, Cookeville, Tennessee, May 1997.
81. *Topics in Parallel Computation and P-Completeness Theory*. Dipartimento di Scienze dell'Informazione, Università degli Studi di Roma *La Sapienza*, Rome, Italy, January 1998.
82. *Node and Edge Ranking of Trees*. Department of Computer Science, Armstrong Atlantic State University, Savannah, Georgia, March 1998.
83. *Topics in Parallel Computation and P-Completeness Theory*. Department of Mathematics and Computer Science, Saint Mary's College of California, Moraga, California, March 1998.
84. *Topics in Parallel Computation and P-Completeness Theory*. Department of Computer Science, University of North Carolina at Wilmington, Wilmington, North Carolina, March 1998.
85. *Node and Edge Ranking of Trees*. Department of Computer Science and Quantitative Methods, Winthrop University, Rock Hill, South Carolina, April 1998.
86. *Topics in Parallel Computation and P-Completeness Theory*. Department of Computer Science, University of Central Florida, Orlando, Florida, October 1998.
87. *Computing Prüfer Codes Efficiently in Parallel*. Department of Computer Science, University of Central Florida, Orlando, Florida, October 1998.
88. *Topics in Parallel Computation and P-Completeness Theory*. Department of Computer Science, University of New Mexico, Albuquerque, New Mexico, December 1998.
89. *Computing Prüfer Codes Efficiently in Parallel*. Department of Computer Science, University of New Hampshire, Durham, New Hampshire, April 1999.
90. *Fundamental Results in Parallel Computation*. Department of Computer Science, University of Iceland, Reykjavík, Iceland, June 1999.

91. *On Computing Prüfer Codes and Their Corresponding Trees Optimally in Parallel.* Department of Computer Science, University of Central Florida, Orlando, Florida, October 1999.
92. *On Computing Prüfer Codes and Their Corresponding Trees Optimally in Parallel.* Department of Computer Science, Southern Polytechnic State University, Marietta, Georgia, November 1999.
93. *On Computing Prüfer Codes and Their Corresponding Trees Optimally in Parallel.* Department of Mathematics and Computer Science, Georgia Southern University, Statesboro, Georgia, December 1999.
94. *Parallel Algorithms and Prüfer Codes.* Human Genome Center, Institute of Medical Science, University of Tokyo, Tokyo, Japan, December 1999.
95. *Parallel Algorithms and Prüfer Codes.* Department of Informatics, Kyushu University, Fukuoka, Japan, January 2000.
96. *Parallel Algorithms and Prüfer Codes.* Department of Computer Science, University of Georgia, Athens, Georgia, February 2000.
97. *Parallel Algorithms and Prüfer Codes.* Department of Computer Science, Brandeis University, Waltham, Massachusetts, April 2000.
98. *Parallel Algorithms and Prüfer Codes.* Department of Computer Science, Pomona College, Claremont, California, October 2000.
99. *A Real Walk through the Woods.* Robert Ingram Strozier Faculty Lecture Series, Armstrong Atlantic State University, Savannah, Georgia, October 2000.
100. *Parallel Algorithms and Prüfer Codes.* Department of Computer Science and Information Systems, Kennesaw State University, Kennesaw, Georgia, October 2000.
101. *Yamacraw in Southeast Georgia.* Department of Mathematics and Computer Science, Georgia Southern University, Statesboro, Georgia, November 2000.
102. *Yamacraw in Southeast Georgia.* Department of Computer Engineering Technology, Savannah State University, Savannah, Georgia, November 2000.
103. *Tree Ranking Algorithms.* Department of Informatics, Kyushu University, Fukuoka, Japan, December 2000.
104. *Sequential and Parallel Algorithms for Some Problems on Trees.* Department of Computing and Software Systems, University of Washington Tacoma, Tacoma, Washington, January 2001.
105. *Sequential and Parallel Algorithms for Some Problems on Trees.* Department of Computing and Software Systems, University of Washington Bothell, Bothell, Washington, January 2001.



106. *Sequential and Parallel Algorithms for Some Problems on Trees*. Department of Computer Science and Engineering, University of Washington, Seattle, Washington, January 2001.
107. *Yamacraw Project Overview*. The Landings Kiwanis Club, Skidaway Island, Georgia, May 2001.
108. *Sequential and Parallel Algorithms for Some Problems on Trees*. Department of Computer Science, University of Central Florida, Orlando, Florida, June 2001.
109. *Sequential and Parallel Algorithms for Some Problems on Trees*. Department of Computer Science, University of Montreal, Montreal, Canada, September 2001.
110. *Introduction to Parallel Computation*. Department of Computer Science, Northern Arizona University, Flagstaff, Arizona, October 2002.
111. *The School of Computing's Explosive Growth*. Armstrong Atlantic Alumni Association, Wilmington Island, Georgia, November 2002.
112. *The School of Computing's Explosive Growth*. The Landings Rotary Club, Skidaway Island, Georgia, January 2003.
113. *A Regional Center for Cyber Security Education and Training*. Business and Education Technology Alliance Meeting, Savannah, Georgia, January 2003.
114. *Curriculum Issues in Information Technology and Computer Science*. University of Technology and Management Malaysia, Kuala Lumpur, Malaysia, March 2003.
115. *Parallel Computing in Engineering*. University of Technology and Management Malaysia, Kuala Lumpur, Malaysia, March 2003.
116. *An Introduction to Parallel Computation*. University of Technology and Management Malaysia, Kuala Lumpur, Malaysia, March 2003.
117. *An Overview of the Yamacraw Initiative*. University of Technology and Management Malaysia, Kuala Lumpur, Malaysia, March 2003.
118. *Fundamentals of Parallel Algorithms*. University of Technology and Management Malaysia, Kuala Lumpur, Malaysia, March 2003.
119. *Research Issues in Computer Science and Information Technology*. University of Technology and Management Malaysia, Kuala Lumpur, Malaysia, March 2003.
120. *An Introduction to Parallel Computation*. University of Technology and Management Malaysia, Kuala Lumpur, Malaysia, March 2003.
121. *P-Complete Problems*. University of Technology and Management Malaysia, Kuala Lumpur, Malaysia, March 2003.

122. *Technical Writing in Computer Science*. University of Technology and Management Malaysia, Kuala Lumpur, Malaysia, April 2003.
123. *Careers in Computer Science and Information Technology*. University of Technology and Management Malaysia, Kuala Lumpur, Malaysia, April 2003.
124. *Algorithms for Tree Problems*. Indian Institute of Technology (Kharagpur), Kharagpur, India, January 2004.
125. *Introduction to Graph Theory*. University of Technology and Management Malaysia, Kuala Lumpur, Malaysia, January 2004.
126. *Fundamental Results in Graph Theory*. University of Technology and Management Malaysia, Kuala Lumpur, Malaysia, January 2004.
127. *Trees and Forests in Graph Theory*. University of Technology and Management Malaysia, Kuala Lumpur, Malaysia, January 2004.
128. *Graph Theory Applications*. University of Technology and Management Malaysia, Kuala Lumpur, Malaysia, January 2004.
129. *Technical Writing*. University of Technology and Management Malaysia, Kuala Lumpur, Malaysia, January 2004.
130. *Leadership*. Armstrong Atlantic State University, Savannah, Georgia, February 2004.
131. *Sequential and Parallel Algorithms for Some Problems on Trees*. Department of Mathematics and Computer Science, Saint Mary's College of California, Moraga, California, March 2004.
132. *The Fastest Hike: A Lesson in Leadership*. University of New Hampshire, Durham, New Hampshire, April 2004.
133. *The Fastest Hike: A Lesson in Leadership*. Savannah Striders Running Club, Savannah, Georgia, April 2004.
134. *The Fastest Hike: A Lesson in Leadership*. Armstrong Atlantic State University, Savannah, Georgia, October 2004.
135. *Leadership: I Chose to Climb*. Armstrong Atlantic Alumni Association, Wilmington Island, Georgia, November 2004.
136. *Leadership: I Chose to Climb*. The Landings Kiwanis Club, Skidaway Island, Georgia, November 2004.
137. *Leadership: I Chose to Climb*. The Rotary Club, Savannah, Georgia, November 2004.

138. *Sequential and Parallel Algorithms for Some Problems on Trees*. Department of Computer Science, Middlebury College, Middlebury, Vermont, December 2004.
139. *Leadership: I Chose to Climb*. Middlebury College, Middlebury, Vermont, December 2004.
140. *The Fastest Hike: A Lesson in Leadership*. Middlebury College, Middlebury, Vermont, December 2004.
141. *Leadership: I Chose to Climb*. Armstrong Atlantic State University, Savannah, Georgia, December 2004.
142. *Leadership: I Chose to Climb*. The Landings Rotary Club, Skidaway Island, Georgia, February 2005.
143. *Sequential and Parallel Algorithms for Some Problems on Trees*. The United States Air Force Academy, Colorado Springs, Colorado, February 2005.
144. *Leadership: I Chose to Climb*. The United States Air Force Academy, Colorado Springs, Colorado, February 2005.
145. *Leadership: I Chose to Climb*. The Rotary Club East, Savannah, Georgia, February 2005.
146. *Leadership*. Special faculty lecture. Armstrong Atlantic State University, Savannah, Georgia, March 2005.
147. *Leadership: I Chose to Climb*. United Methodist Church, Savannah, Georgia, March 2005.
148. *Leadership: I Chose to Climb*. Savannah Striders Running Club, Savannah, Georgia, April 2005.
149. *Sequential and Parallel Algorithms for Some Problems on Trees*. Universität Koblenz-Landau, Koblenz, Germany, April 2005.
150. *Armstrong Atlantic State University and the School of Computing*. Universität Koblenz-Landau, Koblenz, Germany, April 2005.
151. *Leadership: I Chose to Climb*. Rotary West Club of Savannah, Savannah, Georgia, May 2005.
152. *Leadership: I Chose to Climb*. Sunrise Rotary Club of Savannah, Savannah, Georgia, May 2005.
153. *Leadership: I Chose to Climb*. Richmond Hill Rotary Club, Richmond Hill, Georgia, May 2005.
154. *The Fastest Hike: A Lesson in Leadership*. Sentient Bean, Savannah, Georgia, May 2005.

155. *The Fastest Hike: A Lesson in Leadership*. Early Alert Support Environment Seminar at Armstrong Atlantic State University, Savannah, Georgia, November 2005.
156. *Parallel Algorithms in Computer Science*. University of Technology and Management Malaysia, Kuala Lumpur, Malaysia, December 2005.
157. *Sequential Algorithms for Graph Theory Problems*. University of Technology and Management Malaysia, Kuala Lumpur, Malaysia, December 2005.
158. *Preparing an Accreditation Self-Study Report*. University of Technology and Management Malaysia, Kuala Lumpur, Malaysia, January 2006.
159. *The Synergy of Mathematics and Computer Science*. University of Technology and Management Malaysia, Kuala Lumpur, Malaysia, January 2006.
160. *Ten Breakthroughs in Computer Science*. University of Technology and Management Malaysia, Kuala Lumpur, Malaysia, January 2006.
161. *Ten Interesting Computer Scientists*. University of Technology and Management Malaysia, Kuala Lumpur, Malaysia, January 2006.
162. *P-Completeness Theory: A Seminar Series*. Chiang Mai University, Chiang Mai, Thailand, February 2006.
163. *Topics in Parallel Computation*. Khon Kaen University, Khon Kaen, Thailand, February 2006.
164. *Ten Breakthroughs in Computer Science*. Khon Kaen University, Khon Kaen, Thailand, February 2006.
165. *Ten Interesting Computer Scientists*. Chiang Mai University, Chiang Mai, Thailand, February 2006.
166. *Parallel Algorithms and Prüfer Codes*. Department of Computer Science, Asian Institute of Technology, Bangkok, Thailand, March 2006.
167. *Parallel Algorithms for Ranking Problems*. Department of Computer Science, Asian Institute of Technology, Bangkok, Thailand, March 2006.
168. *Ten Breakthroughs in Computer Science*. National Cheng Chung University, Chiayi, Taiwan, April 2006.
169. *Ten Interesting Computer Scientists*. National Dong Hua University, Hualien, Taiwan, April 2006.
170. *Ten Breakthroughs in Computer Science*. National Dong Hua University, Hualien, Taiwan, April 2006.
171. *An Introduction to Parallel Computation*. Prince of Songkla University, Hat Yai, Thailand, June 2006.

172. *Ten Breakthroughs in Computer Science*. Prince of Songkla University, Hat Yai, Thailand, June 2006.
173. *A Lesson in Leadership*. Prince of Songkla University, Hat Yai, Thailand, June 2006.
174. *Ten Interesting Computer Scientists*. Prince of Songkla University, Hat Yai, Thailand, June 2006.
175. *Overview of Accreditation for Computing Programs*. Prince of Songkla University, Hat Yai, Thailand, June 2006.
176. *Technical Writing in Computer Science*. Chiang Mai University, Chiang Mai, Thailand, June 2006.
177. *Ten Interesting Computer Scientists*. Bansomdejchaopraya Rajabhat University, Bangkok, Thailand, June 2006.
178. *A Lesson in Leadership*. Bansomdejchaopraya Rajabhat University, Bangkok, Thailand, June 2006.
179. *Ten Breakthroughs in Computer Science*. Bansomdejchaopraya Rajabhat University, Bangkok, Thailand, June 2006.
180. *The Fastest Hike: A Lesson in Leadership*. Wesley Monumental, Savannah, Georgia, September 2006.
181. *The Fastest Hike: A Lesson in Leadership*. Savannah Mission Fund Raiser, Savannah, Georgia, September 2006.
182. *Senior Fulbright to Chiang Mai University in Thailand*. Armstrong Atlantic State University, Savannah, Georgia, September 2006.
183. *Parallel Computation and P-Completeness Theory*. George Mason University, Fairfax, Virginia, November 2006.
184. *Senior Fulbright to Chiang Mai University in Thailand*. Savannah Striders Running Club, Savannah, Georgia, November 2006.
185. *Senior Fulbright to Chiang Mai University in Thailand*. ACM Club, Armstrong Atlantic State University, Savannah, Georgia, January 2007.
186. *On the Parallel Complexity of Hierarchical Clustering and CC-Complete Problems*. Armstrong Atlantic State University, Savannah, Georgia, February 2007.
187. *Senior Fulbright to Chiang Mai University in Thailand*. Richmond Hill Rotary Club, Richmond Hill, Georgia, March 2007.
188. *Overview of Computing/Technology*. Kuakarun College of Nursing, Bangkok, Thailand, May 2007.

189. *A Comparison of Thailand and the United States' Educational Systems*. Kuakarun College of Nursing, Bangkok, Thailand, May 2007.
190. *Time Management*. Kuakarun College of Nursing, Bangkok, Thailand, May 2007.
191. *Current Trends in Technology Relating to Medicine*. Kuakarun College of Nursing, Bangkok, Thailand, May 2007.
192. *On the Parallel Complexity of Hierarchical Clustering and CC-Complete Problems*. Chiang Mai University, Chiang Mai, Thailand, December 2007.
193. *Parallel Models of Computation*. Chiang Mai University, Chiang Mai, Thailand, December 2007.
194. *Introduction to P-Completeness Theory*. Chiang Mai University, Chiang Mai, Thailand, December 2007.
195. *Parallel Algorithms for Tree Problems*. Chulalongkorn University, Bangkok, Thailand, December 2007.
196. *Rankings and Codings of Trees*. University of St. Louis Missouri, January 2008.
197. *Parallel Algorithms*. Cambridge University, Cambridge, England, March 2008.
198. *The Fastest Hike: A Lesson in Leadership*. Savannah Methodist Church, Tybee Island, Georgia, April 2008.
199. *Research Methodologies and Current Research Topics in Computing*. Management and Science University, Kuala Lumpur, Malaysia, May 2008.
200. *Overview of the ABET Process*. Management and Science University, Kuala Lumpur, Malaysia, May 2008.
201. *Preparing a Self-Study for Accreditation*. Management and Science University, Kuala Lumpur, Malaysia, May 2008.
202. *ABET's General Criteria for Computing Programs*. Management and Science University, Kuala Lumpur, Malaysia, May 2008.
203. *On Obtaining a PhD in Computing*. Management and Science University, Kuala Lumpur, Malaysia, June 2008.
204. *Writing a Dissertation*. Management and Science University, Kuala Lumpur, Malaysia, June 2008.
205. *On Oral Presentations*. Management and Science University, Kuala Lumpur, Malaysia, June 2008.
206. *On the Parallel Complexity of Hierarchical Clustering and CC-Complete Problems*. Management and Science University, Kuala Lumpur, Malaysia, June 2008.

207. *Report Writing*. Management and Science University, Kuala Lumpur, Malaysia, June 2008.
208. *The Complexity of Graph Labeling*. Chiang Mai University, Chiang Mai, Thailand, July 2008.
209. *The Complexity of the Evolution of Graph Labelings*. Armstrong Atlantic State University, Savannah, Georgia, September 2008.
210. *Leadership: I Chose to Climb*. Kiwanis Club, Statesboro, Georgia, September 2008.
211. *On Industrial Advisory Boards*. Seminar on Higher Education for Science and Technology, Bangkok, Thailand, June 2009.
212. *Overview of ABET Accreditation*. Seminar on Higher Education for Science and Technology, Bangkok, Thailand, June 2009.
213. *On Industrial Advisory Boards*. Seminar on Higher Education for Science and Technology, Prince of Songkla University, Hat Yai, Thailand, June 2009.
214. *Overview of ABET Accreditation*. Seminar on Higher Education for Science and Technology, Prince of Songkla University, Hat Yai, Thailand, June 2009.
215. *On Industrial Advisory Boards*. Seminar on Higher Education for Science and Technology, Khon Kaen University, Khon Kaen, Thailand, June 2009.
216. *Overview of ABET Accreditation*. Seminar on Higher Education for Science and Technology, Khon Kaen University, Khon Kaen, Thailand, June 2009.
217. *Sequential Algorithms for Problems on Trees*. Chiang Mai University, Chiang Mai, Thailand, October 2009.
218. *Parallel Algorithms for Problems on Trees*. Chiang Mai University, Chiang Mai, Thailand, October 2009.
219. *The Complexity of the Evolution of Graph Labeling*. United States Naval Academy, Annapolis, Maryland, November 2009.
220. *A Wellness Profile Model and Dynamic Matching for Social Networks*. Chiang Mai University, Chiang Mai, Thailand, June 2010.
221. *Social Networking, Wellness, and Complexity*. Chulalongkorn University, Bangkok, Thailand, November 2010.
222. *On Journal Paper Writing*. Chiang Mai University, Chiang Mai, Thailand, February 2011.
223. *On Journal Paper Submission*. Chiang Mai University, Chiang Mai, Thailand, February 2011.

224. *The United States Naval Academy as a Member of CyberWatch*. Electronic presentation via Wimba to members of CyberWatch, March 2011.
225. *Ten Breakthroughs in Computing*. Department of Computer Engineering, Chiang Mai University, Chiang Mai, Thailand, July 2011.
226. *Anatomy and Dissection of an Introduction to Cyber-Security Class*. The United States Air Force Academy, Colorado Springs, Colorado, December 2011.
227. *On a Cyber-Security Class*. Khon Kaen University, Khon Kaen, Thailand, January 2012.
228. *On a Cyber-Security Class*. Mae Jo University, Mae Jo, Thailand, February 2012.
229. *On a Cyber-Security Class*. Mae Fah Luang University, Chiang Rai, Thailand, March 2012.
230. *On a Cyber-Security Class*. Chiang Mai University, Chiang Mai, Thailand, July 2012.
231. *Network Reconnaissance, Attack, and Defense Laboratories for an Introductory Cyber-Security Course*. Northern Chiang Mai University, Hang Dong, Thailand, July 2013.
232. *Network Reconnaissance, Attack, and Defense Laboratories for an Introductory Cyber-Security Course*. Far Eastern University, Chiang Mai, Thailand, July 2013.
233. *Network Reconnaissance, Attack, and Defense Laboratories for an Introductory Cyber-Security Course*. Chiang Mai Rajaphat University, Mae Tang, Thailand, July 2013.
234. *Network Reconnaissance, Attack, and Defense Laboratories for an Introductory Cyber-Security Course*. Chiang Mai University, Chiang Mai, Thailand, August 2013.
235. *An Assessment Model for Game-Over Components in Cyber-Security Designs and the Model's Complexity*. University of the District of Columbia, Washington, DC, October 2013.
236. *America on Foot*. University of Namibia, Windhoek, Namibia, March 2023.
237. *Living within Your Means*. University of Namibia, Windhoek, Namibia, April 2023.
238. *General Money Matters and Life's Priorities*. University of Namibia, broadcast to all campuses in the university system, Windhoek, Namibia, September 2023.
239. *Conceiving, Planning, and Executing An Around-the-World Trip*. University of Namibia, Namibia, broadcast to all campuses in the university system, Windhoek, Namibia, October 2023.



240. *Hot Topics in Computing: Artificial Intelligence, Cybersecurity, and Accreditation.* University of Namibia (José Eduardo Dos Santos Campus), Ongwediva, Namibia, November 2023.
241. *Hot Topics in Computing: Artificial Intelligence, Cybersecurity, and Accreditation.* University of Namibia (Oshakati Campus), Oshakati, Namibia, November 2023.
242. *Hot Topics in Computing: Artificial Intelligence, Cybersecurity, and Accreditation.* University of Namibia (Rundu Campus), Rundu, Namibia, November 2023.

## PROFESSIONAL ACTIVITIES

### *Editorial*

- ▷ International Advisory Panel, *Journal of the University of Technology and Management Malaysia*, 2005–21
- ▷ Editorial Board, *Scientific and Practical Computing Journal*, 2006–21
- ▷ Editorial Board, *Chiang Mai Journal of Science*, 2008–21
- ▷ Editorial Board, *North Chiang Mai University Journal of Information Technology*, 2013–21

### *ABET Computing Accreditation Commission, CSAB*

- ▷ ABET Consultant 2010–
- ▷ Program Evaluator (Computer Science) 2001–
- ▷ Invited to become Team Chair and Commissioner, 2003
- ▷ Program Evaluator (Information Technology), one of the first six, 2004–
- ▷ Commissioner 2005–10
- ▷ Team Chair 2005–10
- ▷ CSAB, Assignment and Quality Assurance Committee, 2005–10
- ▷ Program Evaluator (Information Systems) 2007–16
- ▷ Program Evaluator (Cybersecurity) 2017–
- ▷ CAC Training Committee 2007–10
- ▷ CAC Executive Committee 2009–10
- ▷ CAC Pilot and Core Team Committee Member for Certificate Recognition 2023–
- ▷ CAC Seoul Accord Committee 2008–09
- ▷ CAC Training Committee, Chair 2009–10
- ▷ Upper State University Self-Study Committee 2009–10
- ▷ Accreditation Council Training Committee Member 2009–10
- ▷ Team Chair Training Task Group 2009–10
- ▷ Conducted Institutional Representative Training (3 hours) 2010
- ▷ Conducted New Team Chair Training (7 hours) 2010
- ▷ CSAB, Recurring Awards Committee 2011–21
- ▷ CSAB, Criteria Steering Committee 2013–21  
(charged with investigating a new set of Criteria for Cyber Security)
- ▷ Cyber Education Project (CEP), Founding Member 2014
- ▷ Cyber Education Project (CEP), Steering Committee 2014–16

- ▷ Cyber Education Project, Accreditation Committee (co-chair) 2014–16

#### *Conference Program Committees*

- ▷ Chair, Organizer, and Emcee; First Yamacraw Conference in Savannah, May 2000
- ▷ Program Committee, Nano-Technology Conference in Savannah, May 2000
- ▷ Program Committee and Emcee; BioInformatics Symposium in Savannah, November 2000
- ▷ Program Committee, Wireless Computing Symposium in Savannah, May 2001
- ▷ Chair, Organizer, and Emcee; Yamacraw Day in Savannah, March 2002
- ▷ Program Committee, 41st Annual ACM Southeast Conference, 2003
- ▷ Chair and Emcee; Yamacraw Day in Savannah, March 2003
- ▷ Session Chair, The Fourth Electrical/Electronics, Computer, Telecommunications, and Information Technology Conference, Chiang Rai, Thailand, May 2007
- ▷ Program Committee, Ninth ACIS International Conference on Software Engineering, Artificial Intelligence, Networking, and Parallel/Distributed Computing (SNPD 2008), Phuket, Thailand, August 2008
- ▷ Session Chair, Ninth ACIS International Conference on Software Engineering, Artificial Intelligence, Networking, and Parallel/Distributed Computing (SNPD 2008), Phuket, Thailand, August 2008
- ▷ Program Committee, Tenth ACIS International Conference on Software Engineering, Artificial Intelligence, Networking, and Parallel/Distributed Computing (SNPD 2009), Seoul, Korea, August 2009
- ▷ Program Committee, Seventh ACIS International Conference on Software Engineering, Research, Management, and Applications (SERA 2009), Haikou, China, December 2009
- ▷ Program Committee, Eight ACIS International Conference on Software Engineering, Research, Management, and Applications (SERA 2010), Montreal, Canada May 2010
- ▷ Program Committee, The Seventh International Conference in Electrical Engineering/Electronics, Computer, Telecommunications, and Information Technology, Chiang Mai, Thailand, May 2010
- ▷ Co-chair, Technical Program, International Conference on Software Engineering & Computer Systems, Chiang Mai, Thailand, November 2010
- ▷ Session Chair, International Conference on Software Engineering & Computer Systems, Chiang Mai, Thailand, November 2010
- ▷ Technical Program, International Conference on Software Engineering & Computer Systems, Bangkok, Thailand, September 2011
- ▷ Federal Information Systems Educators' Association (FISSEA) Technical Working Group 2012–15
- ▷ Program Committee, Workshop on Information Literacy, e-Learning, and Social Media, Hualien, Taiwan, December 2012
- ▷ Program Committee, First International Workshop on Theories and Applications of Graphs: Toward the Big Data Era (iTAG), Khon Kaen, Thailand, July 2014
- ▷ Program Committee, First Sullivan Online Global Conference on Information and

- Computer Technology (CICT 2014), Discrete Structures Track, December 2014
- ▷ Program Committee for the Second International Conference on Trustworthy Systems and Their Applications, Hualien, Taiwan, July 2015
  - ▷ Program Committee for the 10th Workshop on Algorithms and Computation (WALCOM) Kathmandu, Nepal, March 2016
  - ▷ Session Chair, VII IEEE World Engineering Education Conference, Bogotá, Columbia, March 2023

#### *Project Reviews*

- ▷ Discovery Science Project, Kyushu University, Fukuoka, Japan, December 2000
- ▷ Information Technology Curriculum, University of Technology and Management Malaysia, Kuala Lumpur, Malaysia, March 2003
- ▷ Computer Science Curriculum, University of Technology and Management Malaysia, Kuala Lumpur, Malaysia, January 2004

#### *Journal Reviews*

Algorithmica

Chiang Mai Journal of Science

Complexity

Discrete Applied Mathematics

IEEE Transactions on Parallel and Distributed Systems

IEICE Transactions on Information and Systems

Information Processing Letters

Institute of Combinatorics and Its Applications Bulletin

International Journal on the Foundations of Theoretical Computer Science

Journal of Algorithms

Journal of Association for Computing Machinery

Journal of Computer and System Sciences

Journal of Parallel and Distributed Computing

Journal of Statistical Physics

KUTPM Journal of Technology & Management

Mathematical Systems Theory

Networks

Parallel Processing Letters

SIAM Journal on Computing

Theoretical Computer Science

Theoretical Informatics and Applications

Theory of Computing Systems

#### *Book Reviews*

Addison-Wesley

Jones and Bartlett Publishers

Franklin, Beedle & Associates, Inc.

Morgan Kaufmann Publishing  
 Oxford University Press  
 Springer-Verlag

*Conference Reviews*

ACM Southeast Conference  
 Discovery Science Conference  
 Electrical/Electronics, Computer Telecommunications, and Information  
 Technology Conference  
 European Symposium on Algorithms  
 Foundations of Software Technology and Theoretical Computer Science  
 International Conference on Software Engineering & Computer Systems  
 International Conference of Software Engineering, Artificial Intelligence,  
 Networking, and Parallel/Distributed Computing  
 International Symposium on Computer Architecture  
 Scandinavian Workshop on Algorithmic Theory

*Grant Reviews*

Department of Defense  
 Fulbright Foundation, Specialist Review Committee Member for Computer Science,  
 2001–2003  
 Fulbright Foundation, Specialist Review for Computer Science and Engineering,  
 2007–2009  
 National Science Foundation (Division of Computer and Information Sciences)  
 National Science Foundation (Division of Mathematical Sciences)  
 National Science Foundation Panels (Division of Undergraduate Education)

INTERNATIONAL EXPERIENCE SUMMARY

- ▷ Traveled to 7 continents and 170+ countries and territories
- ▷ Traveled to 185+ islands
- ▷ Fulbrights to Iceland, Namibia, Spain, and Thailand
- ▷ Visiting professorships in Italy, Malaysia, and Thailand
- ▷ Additional fellowships to Germany, Italy, Japan, and Spain
- ▷ Developed MOUs with Chiang Mai University (Thailand), the University of Technology and Management Malaysia (Malaysia), and the University of Koblenz/Landau (Germany)
- ▷ Consultant for international programs

- ▷ Conducted international site visits for ABET
- ▷ Co-author with researchers from 15+ different countries
- ▷ Research funded by the governments of Germany, Hong Kong, Iceland, Italy, Japan, Malaysia, Namibia, Spain, Taiwan, Thailand, and United States
- ▷ Books translated into Italian and Chinese
- ▷ Talks presented in 20+ different countries
- ▷ Visited 90+ universities internationally
- ▷ Organized and co-lead a student/faculty study aboard trip to Thailand in 2007
- ▷ Organized and lead a student study aboard trip to Thailand in 2012

#### STUDENT SUPERVISION

##### *PhD Student—Dissertation*

- ▷ P. Longani (2009–2015, The Complexity of Wireless Mobility Models, co-advisor)
- ▷ N. Juneam (2011–17, Soical Networking, co-advisor)

##### *MS Student—Thesis*

- ▷ E. Hepp (1995, An Investigation of Approximate Matching Algorithms Using the Stanford Graphbase)

##### *Masters Thesis Committees*

K. Gevecker (1991, Constraint Satisfaction)	J. Joy (1991, Graphics)
R. Jones (1991, Parallel Compilers)	A. Lapadula (1991, Parallel Compilers)
B. Benson (1992, Constraint Satisfaction)	K. Herold (1992, Parallel Compilers)
P. Hubbe (1992, Constraint Satisfaction)	H. Ma (1992, Graphics)
B. Dame (1994, Data Visualization)	F. Yue (1997, Algorithms)
P. Longani (2008, Networking)	W. Yaothanee (2008, Networking)
I. Sopin (2010, 3D Graphics)	

##### *PhD Dissertation Committees*

P. Goransson (1995, Networks)	T. Calamoneri (1997, Algorithms)
P. Wong (1997, Data Visualization)	L. Trevisan* (1997, Algorithms)
D. Kao (1998, Visualization)	J. Dave (Graphics)
P. Eaton (Constraints)	

\* Denotes outside reader.

## COURSES DEVELOPED INCLUDING ACCOMPANYING MATERIALS

*Undergraduate*

- ▷ CS 403, On-Line Network Exploration<sup>†</sup>
- ▷ CS 659, Introduction to the Theory of Computation<sup>†</sup>
- ▷ CSCI 1150, Introduction to the Internet and World Wide Web<sup>†</sup>
- ▷ CSCI 1210, Understanding Practical Unix<sup>†</sup>
- ▷ Armstrong Atlantic's Bachelor of Information Technology

I developed the curriculum for this entire program including eleven new courses.

- ▷ SI 110, Introduction to Cyber Security (United States Naval Academy)

I developed materials for the last third of this course, including lecture notes, instructor notes, homework, quizzes, exams, labs, and solutions for all items. The topics included cryptography, forensics, network attacks and defense, cyber attack, malware, and critical infrastructure.

- ▷ SY 201, Fundamentals of Cyber Operations (United States Naval Academy)

I developed this entire new course. It was the first course in USNA's new Cyber Operations major. The course introduces key topics in cyber security and teaches programming using the Python language. I produced 1,200 pages of material, including lecture notes, instructor notes, sample programs, homeworks, homework solutions, labs, instructor lab notes, lab check sheets, lab check-sheet solutions, quizzes, quiz solutions, exams, exam solutions, practicum exams, practicum-exam solutions, course syllabus, course policy, and the course website.

<sup>†</sup> Denotes I wrote a text for the course.

*Graduate*

- ▷ CS 942, Parallel Computers and Computations<sup>†</sup>
- ▷ CS 959, Theory of Computation<sup>†</sup>
- ▷ CSCI 6100, Technical Writing<sup>†</sup>
- ▷ Armstrong Atlantic's Master of Computer Science

I developed the curriculum for this entire program including thirteen new courses.

<sup>†</sup> Denotes I wrote a text for the course.

## COURSES TAUGHT

*Undergraduate*

- ▷ Computing Theory, CMP 3711 (Spring 2022–23, Spring 2023–24)
- ▷ Discrete Mathematics and Probability, SM 242  
(Fall 2010–11)
- ▷ Discrete Structures for Computer Science, CSCI 2620  
(Fall 1998–99, Fall 1999–2000, Spring 1999–2000, Fall 2008–09)
- ▷ Entrepreneurship and Management of IT Systems, CMP 3832 (Fall 2022–23,  
Fall 2023–24)
- ▷ Fundamentals of Cyber Operations, SY 201 (served as Course Coordinator)  
(Fall 2013–14, Fall 2014–15, Fall 2015–16)
- ▷ Independent Reading, CS 696  
(Fall 1991–92, Fall 1993–94, Spring 1993–94, Fall 1994–95, Fall 1996–97, Spring  
1996–97, Fall 1997–98, Spring 1997–98, Spring 1998–99)
- ▷ Independent Study, CSCI 4999  
(Spring 2001–02)
- ▷ Introduction to Computer Ethics and Cyber Security, CSCI 2070  
(Fall 2009–2010)
- ▷ Introduction to Cyber Security: Technical Foundations, SI 110  
(Fall 2011–2012, Fall 2012–2013)
- ▷ Introduction to the Internet and World Wide Web, CSCI 1150  
(Fall 2000–01, Fall 2001–02, Fall 2007–08, Spring 2007–08, Fall 2008–09, Spring  
2008–09, Fall 2009–10, Spring 2009–10)
- ▷ Introduction to the Theory of Computation, CS 659/CSCI 3510  
(Spring 1990–91, Spring 1991–92, Fall 1992–93, Spring 1992–93, Fall 1993–94, Spring  
1993–94, Fall 1994–95, Spring 1996–97, Spring 1997–98, Spring 2007–08, Fall 2008–  
09)
- ▷ On-line Network Exploration, CS 403  
(Fall 1996–97, Spring 1996–97, Fall 1997–98, Spring 1997–98)
- ▷ Senior Project in Computer Science, CSCI 4390  
(Spring 1999–2000, Spring 2000–01, Summer 2000–01, Spring 2001–02)
- ▷ Special Topics in Computer Science, CSCI 4990  
(Spring 1998–99)

### *Graduate*

- ▷ Advanced Topics in Complexity Theory, CS 984  
(Fall 1991–92)

- ▷ Analysis of Algorithms, CS 901  
(Fall 1989–90, Fall 1990–91)
- ▷ Independent Reading, CS 998  
(Spring 1990–91, Fall 1992–93, Spring 1992–93, Fall 1993–94, Spring 1993–94, Fall 1994–95, Spring 1997–98)
- ▷ Independent Study, CSCI 8100  
(Fall 2002–03)
- ▷ Parallel Computation, Chiang Mai University, Thailand  
(Spring 2005–06)
- ▷ Parallel Computers and Computations, CS 942  
(Spring 1989–90)
- ▷ Technical Writing, CSCI 6100  
(Fall 2002–03, Spring 2007–08, Spring 2008–09, Spring 2009–10)
- ▷ Theory of Computation, CS 959  
(Spring 1991–92, Spring 1992–93, Fall 1993–94, Fall 1994–95, Fall 1996–97, Fall 1997–98)

#### TEACHING EVALUATIONS SUMMARY

(5.0 = excellent; AASU ratings scaled to 5-point system)

- ▷ Average Student Rating Undergraduate Courses at UNH: 4.6/5.0
- ▷ Average Student Rating Graduate Courses at UNH: 4.7/5.0
- ▷ Average Student Rating Undergraduate Courses at AASU: 4.7/5.0
- ▷ Average Student Rating Graduate Courses at AASU: 4.5/5.0
- ▷ Average Student Rating Undergraduate Courses at USNA: 99%  
(The 99% means that 99% of the responses to questions about the instructor selected the answer that was the most favorable.)

#### ADMINISTRATIVE EXPERIENCE HIGHLIGHTS

##### *Accreditation Team Member*

University of New Hampshire (1989–98)

- ▷ Two successful ABET Computer Science Accreditations
- Developed materials for the Self-Studies.

##### *PhD Program Contributor for Computer Science*

University of New Hampshire (1989–98)

- ▷ Helped develop the Computer Science PhD program.

##### *Department Head of Computer Science*



## Armstrong Atlantic State University (1998–2002)

- ▷ Founding Head of the Department of Computer Science.
- ▷ ABET Computer Science Accreditation 1999–2000.  
Prepared the Self-Study, organized the accreditation team visit, and achieved a successful accreditation.
- ▷ Implemented a Pre-Computer Science major, 1999.
- ▷ Increased enrollments and number of graduates by a factor of three, 1999–2001.
- ▷ Developed two Information Technology Certificates, 2001.
- ▷ Helped write, developed curriculum for, obtained approval for, and implemented a new Bachelor of Information Technology, 2001.
- ▷ Wrote, developed curriculum for, obtained approval for, and implemented a new Master of Science in Computer Science, 2001.
- ▷ Obtained approval for and coordinated the move of the Department of Computer Science into a new building, 2001.
- ▷ Graduate Coordinator, 2001–02.
- ▷ Director, Yamacraw Project at Armstrong Atlantic 1999–2002.
- ▷ Wrote successful proposal for the formation of a School of Computing, 2002.
- ▷ Hired
  - Assistant Professor Mark Burge 1999 (Vision)
  - Instructor Carolyn Smith 1999 (Systems)
  - Assistant Professor Geir Agnarsson 2000 (Algorithms)
  - Assistant Professor Sergio De Agostino 2000 (Data Compression)
  - Professor Daniel Liang 2000 (Programming Languages)
  - Technical Specialist Greg Geller 2000 (Computer Science)
  - Technical Specialist Ben Page 2000 (Computer Science)
  - Professor Joy Reed 2001 (Distributed Systems)
  - Assistant Professor Kam Lau 2001 (Real-Time Systems)
  - Associate Professor Hong Zhang 2002 (BioInformatics)
  - Assistant Professor Hongjun Su 2002 (Networks)
  - Assistant Professor Margaret Champion 2002 (Database)
  - Technical Specialist Chris McCarthy 2002 (Computer Science)

*Dean of the School of Computing*

## Armstrong Atlantic State University (February 2002–May 2007)

- ▷ Founder of the School of Computing, consisting of three departments and the following degree
  - Civil Engineering
  - Computer Engineering
  - Computer Science
  - Electrical Engineering
  - Information Technology

- Master of Science in Computer Science
- Mechanical Engineering
- [Note: Engineering programs were 2+2 programs with the Georgia Institute of Technology.]
- ▷ Participated in a successful Southern Accreditation for Colleges and Schools (SACS) reaccreditation, 2002.
- ▷ Proposed and helped secure \$23,000,000 for a new building to house the School of Computing.
- ▷ Director, Yamacraw Project at Armstrong Atlantic 2003–04.
- ▷ Assisted with proposal for a Cyber Security Center, 2003.
- ▷ Increased student enrollments from about 150 students in 2002 to over 450 students in the School of Computing in 2005.
- ▷ Helped develop a collaborative five University, fully on-line Bachelor of Science in Information Technology, 2003–04. The first such undergraduate degree in the University System of Georgia.
- ▷ Co-wrote proposals for the Bachelor of Science and Master of Science in Health Management Information Systems, 2005.
- ▷ Developed an exchange program with the University of Technology and Management Malaysia, Kuala Lumpur, Malaysia, 2005.
- ▷ Developed an exchange program with the University of Koblenz/Landau, Koblenz, Germany 2005.
- ▷ Led a successful ABET re-accreditation of the Bachelor of Science in Computer Science, 2005–06. Including developing an assessment plan.
- ▷ Developed an exchange program with Chiang Mai University, Chiang Mai, Thailand 2006.
- ▷ Successfully mentored a young faculty of whom several have been awarded National Science Foundation grants.
- ▷ Helped develop and write a proposal for a Bachelor of Science in Cybersecurity and Information Assurance, 2006.
- ▷ Helped develop and write a proposal for a Bachelor of Science in Game Design and Studies, 2006.
- ▷ Co-wrote a proposal for an Associate of Science in Engineering, 2006.
- ▷ Hired
  - Gulfstream Coordinator    Henry Harris        2002    (Chemistry)
  - Engineering Coordinator    Thomas Murphy    2002    (Signal Processing)
  - Assistant Professor        Cameron Coates    2002    (Aerospace Engineering)
  - Assistant Professor        Frank Katz         2002    (Systems Administration)
  - VeriSign Coordinator        Azita Baharim     2002    (Information Technology)

– Professor	Ray Hashemi	2002	(Data Mining)
– Assistant Professor	Dan Lipsa	2002	(Software Engineering)
– Assistant Dean	Steve Jodis	2002	(Software Engineering)
– Instructor	Vinita Sharma	2003	(Internet Programming)
– Management Director	Jonnie Chandler	2003	(School of Computing)
– Technical Specialist	Chris Williams	2003	(School of Computing)
– Department Head of IT	Joy Reed	2003	(Distributed Systems)
– Department Head of CS	Chuck Shipley	2003	(Programming Languages)
– Assistant Professor	Lei Zhu	2003	(Database)
– Assistant Professor	Priya Thamburaj	2003	(Mechanical Engineering)
– Assistant Professor	Lei He	2003	(Graphics)
– Assistant Professor	Wayne Johnson	2003	(Mechanical Engineering)
– Assistant Professor	P. Micikevicius	2003	(Graphics)
– Assistant Professor	F. Hamza-Lup	2005	(Graphics)
– Director of Security	Randy Grubb	2006	(Security)

### *Regional Coordinator for Yamacraw Project*

University System of Georgia (2000–04)

- ▷ Assisted with strategic and tactical planning.
- ▷ Served as regional spokesperson.
- ▷ Led regional faculty hiring.
- ▷ Built and ran a Distinguished Speaker Series (24 talks).
- ▷ Hosted, coordinated, and emceed annual Yamacraw Day conferences.
- ▷ Hosted a multi-day Yamacraw conference.
- ▷ Promoted Yamacraw in the southeast region of Georgia.

### *Departmental Committees*

1. ABET Visit Preparation Committee (2011–12)
2. Accreditation (1998–2001, Chair, 2013–16)
3. Affirmative Action (1991–94, Chair 1992–95)
4. Assessment, AASU (2008–10)
5. Assessment, USNA, Computer Science (2010–12)
6. Assessment, USNA, Cyber Operations, Cyber Sciences (2013–16, Chair 2015–16)
7. Computer Science Advisory Council (2000–02)
8. Computing Equipment (1990–94, Chair 1990–91)
9. Computing Post-Graduate Committee, UNAM (2022–)
10. Curriculum (1998–2001)
11. Curriculum, Center for Cyber Security Studies, USNA (2012–16)

12. Curriculum, Chiang Mai University (2006–11)
13. Cyber Operations (2013–16)
14. Cybersecurity Departmental Liaison, UNAM (2022–)
15. Faculty Search (1995–97, 1998–2003)
16. Graduate Committee, Chiang Mai University (2006–08)
17. Graduate Committee, University of Namibia (2022–24)
18. Graduate Studies (1989–91)
19. Long Range Planning (1993–95)
20. Masters Exam (1989–96)
21. Masters Program (2000–01)
22. Student Mohoko Society, Faculty Advisor (2023–24)
23. Operations (1991–93)
24. Oversight (2013–16)
25. PhD Exam (1991–98)
26. Placement & Internship (1998–2002)
27. Promotion and Tenure (1994–98, 1999–2001, Chair 1999–2002, 2007–08, Chair 2008–09)
28. Recruitment (2010–11)
29. Student Advising (1990–95, 1996–98)
30. Undergraduate Studies (1991–92, 1993–95, 1996–98)
31. Webmaster (1998–2001)

*College, University, and System Committees*

32. Academic Classroom Building Task Force (2005–07)
33. Academic Computing Advisory (1997–98)
34. Academic Council (2001–07)
35. Accreditation Committee for CEP (Co-chair, 2014–16)
36. Administrative Council (1998–07)

37. Alumni Affairs (1997–98)
38. Center for Armstrong Atlantic Research in the Sciences (1998–99)
39. Certificate Program in Computer Science (1998–99)
40. College Computing (1997–98)
41. Computer Engineering (1998–99)
42. Cybersecurity (2002–07)
43. Cyber Education Project (CEP), National Project (2014–16)
44. Dean’s Council (2002–07)
45. Electronic Campus (Chair 1998)
46. Executive Committee Division of Continuing Education (1994–95, 1996–98)
47. Faculty Senator to University Senate (1996–98)
48. Graduate Fellowship Selection (1990–93)
49. Graduate Council (2001–07)
50. Industrial Advisory Board (2007–10)
51. Information Technology (2000–01, Chair 2001–02)
52. Institutional Review Board (2007–10)
53. Institutional Effectiveness (2008–10)
54. Liaison—International Programs and Activities (1998–2002)
55. Library Representative (1998–2000)
56. Maritime Logistics Innovation Center, Georgia, (2003–04)  
Board Member
57. MS in Cybersecurity, UNAM (2022–)
58. National Security Agency Information Assurance (2006–07)
59. Nonlinear Systems Executive (1991–95)
60. Online Bachelor of Science in Information Technology, Georgia, (2003–04)  
Governing Board Member
61. President’s Executive Staff (2001–07)

62. Promotion and Tenure, Ad Hoc School of Computing (2007–08)  
Engineering and Information Technology
63. Rules (1996–98)
64. School of Computing Curriculum Committee (Chair 2002–03)
65. Search, Executive Director of Computer Services (1994–95)
66. Strategic Planning (2002–07)
67. Student Affairs (1996–98)
68. Tactical Planning (2002–07)
69. Yamacraw (1999–04)