

DEBZANI DEB

Associate Professor, Department of
Computer Science
Founding Director, Center for Applied
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RESEARCH INTERESTS

Big data Analytics, Machine Learning, Cloud Computing, Parallel and Distributed Systems, and Computer Science Education.

EDUCATION

2004-2008: Ph.D. in Computer Science, Montana State University, Bozeman, Montana, USA.
Thesis: Achieving Self-managed Deployment in a Distributed Environment via Utility Functions.

2000-2001: Masters' of Computer Science, University of Adelaide, Adelaide, South Australia, Australia.
Thesis: A study of Consistency Protocols for Distributed Shared Memory Systems.

1995-1996: M. Sc. in Electronics & Computer Science, Shahjalal Uni. of Science and Tech., Bangladesh.
Thesis: 3D Vision Using Anaglyph Imagery.

1992-1995: B.Sc. in Electronics & Computer Science, Shahjalal Uni. of Science and Tech., Bangladesh.

ACADEMIC APPOINTMENTS

2017- now: Associate Professor, Dept. of Computer Science, Winston Salem State University, USA.

2011 - 2017: Assistant Professor, Dept. of Computer Science, Winston Salem State University, USA.

2009 - 2011: Assistant Professor, Dept. of Computer Science, Indiana University of Pennsylvania, USA.

Spring, 2009: Lecturer, Dept. of Computer Science, University of North Carolina at Greensboro, USA.

Fall, 2008: Adjunct Faculty, Dept. of Mathematics & Computer Science, High Point University, USA.

2007: Adjunct Instructor, Department of Computer Science, Montana State University, USA.

2006: Teaching Assistant, Department of Computer Science, Montana State University, USA.

2004 - 2005: Research Assistant, Department of Computer Science, Montana State University, USA.

2001: Research Assistant, Department of Computer Science, University of Adelaide, Australia.

2000 - 2003: Assistant Professor, Department of Computer Science & Engineering, Shahjalal University of Science and Technology, Sylhet, Bangladesh.

1997 - 2000: Lecturer, Department of Electronics & Computer Science, Shahjalal University of Science & Technology, Sylhet, Bangladesh.

TEACHING (LAST 5 YEARS)

- Fall 2020 – CST 5345 Data Visualization(G), CST 5320 Design and Analysis of Algorithms (G), CSC 4350 Software Engineering (UG)
- Spring 2020 – CST 6302 Programming Languages (G), CSC 3331 Analysis of Algorithms (UG)
- Fall 2019 – CST 5320 Design and Analysis of Algorithms (G), CSC 4350 Software Engineering (UG), CSC 4322 Parallel Computing (G/UG)
- Spring 2019 – CSC 4310 Big Data and Cloud Computing(G/UG), CSC 3331 Analysis of Algorithms (UG)
- Fall 2018 – CST 5320 Design and Analysis of Algorithms (G), CSC 4350 Software Engineering (UG), CSC 4322 Parallel Computing (G/UG), Team taught a module on data science in GEO 2321 Environmental Justice & Sustainability (UG).
- Spring 2018 – CSC 4310 Big Data and Cloud Computing(G/UG), CSC 3331 Analysis of Algorithms (UG), Team taught modules on bigdata and cloud computing in CSC 3322 Computer Architecture (UG) and CSC 3355 Database Management Systems (UG).
- Fall 2017 - CSC 4350 Software Engineering (UG), CSC 4322 Parallel Computing (G/UG)
- Spring 2017 - CSC 3331 Analysis of Algorithms (UG)
- Fall 2016 - CSC 4350 Software Engineering (UG)
- Spring 2016 - CSC 3331 Analysis of Algorithms (UG)
- Fall 2015 - CSC 4350 Software Engineering (UG), CSC 4322 Parallel Computing (G/UG)
- Spring 2015 - CSC 3331 Analysis of Algorithms (UG)

PUBLICATIONS

Peer reviewed Journal and Series publications

- Fuad M., **Deb, D.**, James E. and Gloster C., “Mobile Response System: A Novel Approach to Deliver Interactive and Hands-on Activity in the Classroom”, Journal of Educational Technology Research and Development, Springer Publishers, Vol. 66, No. 2, 2018, Pages: 493- 514.
- Fuad, M., **Deb, D.** and Baek J., “Static Analysis, Code Transformation and Runtime Profiling for Self-healing”, Journal of Computers (JCP), Vol. 8, No. 5, 2013, Pages 1127-1135.
- **Deb, D.**, Fuad M., and Oudshoorn M. J., “Achieving self-managed deployment in a distributed environment”, Journal of Computational Methods in Science and Engineering (JCMSE), Vol. 11, Issue 3, Supplement 1, 2011, Pages 115-125.
- **Deb, D.**, Fuad M., and Oudshoorn M. J., "ADE: Utility Driven Self-management in a Networked Environment", Journal of Computers (JCP), Academy Publishers, USA, Vol. 2, No. 9, 2007.
- Oudshoorn, M. J., Fuad M., and **Deb, D.**, "Towards Autonomic Computing: Injecting Self-Organizing and Self-Healing Properties into Java Programs", New Trends in Software Methodologies, Tools and Techniques, Volume 147 of Frontiers in Artificial Intelligence and Applications, IOS Press, Amsterdam, The Netherlands, 2006, Pages 384- 406.

Peer reviewed Conference/Workshop publications

1. Monroe, W., *et al.*, "Lightning Talks of EduHPC 2019", IEEE/ACM Workshop on Education for High-Performance Computing (EduHPC), November 2019, Pages 25-31.
2. Fuad, M., Akbar, M., Zubov, L., and **Deb, D.**, "Out-of-class Activities: What Have We Been Doing and How We Can Change it for the Future," 2019 14th International Conference on Computer Science & Education (ICCSE), August 2019, Pages 714-719.
3. Aggarwal, D. *et al.*, "EduPar Posters," IEEE International Parallel and Distributed Processing Symposium Workshops (IPDPSW), May 2019, Pages 347-349.
4. **Deb, D.**, Fuad, M., Irwin, K., “A Module-based Approach to Teaching Big data and Cloud Computing Topics at CS Undergraduate Level”, 50th ACM SIGCSE Conference, March 2019, Pages 2-8.

5. **Deb, D.**, Cousins, S., Fuad, M. "Teaching Big Data and Cloud Computing: A Modular Approach", 32nd IEEE International Parallel and Distributed Processing Symposium Workshops (IPDPSW), May 2018, Pages 377-383.
6. **Deb, D.**, Fuad, M., James, E. and Gloster, C., "MRS: Automated Assessment of Interactive Classroom Exercises", 49th ACM SIGCSE Conference, February 2018, Pages 290-295.
7. Prasad, S., Weems, C., Dougherty, J., **Deb, D.**, "NSF/IEEE-TCPP Curriculum Initiative on Parallel and Distributed Computing –Status Report", Special Session at 49th ACM SIGCSE conference, February 2018, Pages 134-135.
8. Fuad, M. and **Deb, D.**, "Back to the Basics: Read Critically, Reflect Prudently and Write Analytically", 20th IEEE International Conference on Computer and Information Technology, December 2017.
9. Fuad, M. and **Deb D.**, "Cloud-enabled hybrid architecture for in-class interactive learning using mobile device", 5th IEEE International Conference on Mobile Cloud Computing, Services and Engineering (MobileCloud), April 2017, Pages 149-152.
10. **Deb, D.**, Fuad, M. and Kannan, M., "Creating Engaging Exercises with Mobile Response System (MRS)", 48th ACM SIGCSE Conference, March 2017, Pages 147-152.
11. Fuad, M., **Deb, D.**, James, E. and Gloster, C., "Using Interactive Exercise in Mobile Devices to Support Evidence-based Teaching and Learning", 21st ACM Annual Conference on Innovation and Technology in Computer Science Education (ITiCSE), July 2016, Page 17-22
12. Fuad, M., **Deb, D.** and Whitaker, S., "Mobile Interactive Problem Solving for Active Teaching and Learning", 8th IEEE International Conference on Electrical and Computer Engineering, December 2014, Pages: 836-839.
13. **Deb, D.**, Fuad, M. and Farag, W. "Developing Interactive Classroom Exercises for use with Mobile Devices to Enhance Class Engagement and Problem-solving Skills", IEEE Frontiers of Education Conference (FIE) Proceedings, October 2014, Pages: 343-346.
14. Fuad, M., **Deb, D.** and Etim, J., "An Evidence Based Learning and Teaching Strategy for Computer Science Classrooms and its Extension into a Mobile Classroom Response System", Proceedings of the 14th IEEE International Conference on Advanced Learning Technologies (ICALT), July 2014, Pages: 149-153.
15. Fuad, M. and **Deb, D.**, "Design and Development of a Mobile Classroom Response System for Interactive Problem Solving", Proceedings of the 26th International Conference on Software Engineering and Knowledge Engineering (SEKE), July 2014, Pages: 49-52.
16. Farag, W., Ali, S. and **Deb, D.**, "Does Language Choice Influence the Effectiveness of Online Introductory Programming Courses?", Proceedings of the 14th annual ACM SIGITE conference on Information technology education (SIGITE 13), October 2013, Pages 165-170.
17. **Deb, D.**, Gonzales, L., and Geda, M., "Software Engineering Projects with Social Significance: An Experience Report at a Minority University", Proceedings of the 26th IEEE International Conference on Software Engineering Education and Training (CSEE&T), May 2013.
18. Fuad, M., **Deb, D.**, and Baek, J., "Self-healing by means of Runtime Program Profiling", 14th IEEE International Conference on Computer and Information Technology, December 2011, Pages: 202-207.
19. **Deb, D.**, "Achieving Self-Optimization via Utility Functions", Proceedings of the 19th International Conference on Software Engineering and Data Engineering (SEDE 2010), June 2010.
20. Fuad, M. and **Deb, D.**, "Similarity Mapping of Software Faults for Self-Healing Applications", 48th ACM Southeast Conference, April 2010.
21. **Deb, D.**, Oudshoorn, M. J. and Paxton, J., "Self-Managed Deployment in a Distributed Environment via Utility Functions", Proceedings of the 20th International Conference on Software Engineering and Knowledge Engineering (SEKE 08), July 2008, Pages 808-813.
22. Fuad, M., **Deb, D.** and Oudshoorn, M. J., "An Autonomic Element Design for a Distributed Object System", Proceedings of the ISCA 20th International Conference on Parallel and Distributed Computing Systems (PDCS 2007), September 2007, Pages 273-279.
23. **Deb, D.** and Oudshoorn, M. J., "On Utility Driven Deployment in a Distributed Environment", Proceedings of the Fourth IEEE Workshop on Engineering of Autonomic Systems (EASe 2007), March 2007, Pages 14-23.

24. **Deb, D.** and Angryk, R., "Distributed Document Clustering Using Word-clusters", Proceedings of the 2007 IEEE Symposium on Computational Intelligence and Data Mining (CIDM), 2007, Pages 376-383.
25. Fuad M., **Deb, D.** and Oudshoorn, M. J., "Adding Self-Healing Capabilities into Legacy Object Oriented Applications", International Conference on Autonomic and Autonomous Systems, July 2006, Pages 51-56.
26. **Deb, D.**, Fuad, M., and Oudshoorn, M. J., "Towards Autonomic Distribution of Existing Object Oriented Programs", International Conference on Autonomic and Autonomous Systems, July 2006, Pages 17-23.
27. **Deb, D.**, Fuad, M., and Angryk, R., "Distributed Hierarchical Document Clustering", The IASTED International Conference on Advances in Computer Science and Technology, January 2006, Pages 328-333.
28. Oudshoorn, M. J, Fuad, M. and **Deb, D.**, "Towards an Automatic Distribution System - issues and challenges", Proceedings of the International Conference on Parallel and Distributed Computing and Networks, PDCN 2005, February 2005, Pages 399-404.
29. Hossain, M. S., Fuad, M., **Deb, D.**, Khan K. M. N. H, Joarder M. M. A, "Load Balancing in a Networked Environment through Homogenization", Proceedings of the International Conference on Cybernetics and Information Technologies (CITSA 2004), July 2004, Pages 99-104.
30. Hossain, M. S., Fuad, M., **Deb, D.**, Khan, K. M. N. H., and Joarder, M. M. A., "Homogenization: A Mechanism for Distributed Processing across a Local Area Network", Workshop on Communication Abstractions for Distributed Systems in the ECOOP 2004 Conference, June 2004.

Peer reviewed Poster Abstracts

1. **Deb, D.**, Jones, E., "University-wide Adoption of Data Science", 51th ACM SIGCSE Conference, February 2020.
2. **Deb, D.**, Smith, R. M., and Fuad, M. "Infusing Data Science Across Disciplines", In Proceedings of the 2019 ACM Conference on Innovation and Technology in Computer Science Education (ITiCSE), July 2019.
3. **Deb, D.**, Fuad, M., Irwin, K., "An Alternative Approach to Teaching Big data and Cloud Computing Topics at CS Undergraduate Level", Poster abstract at International Conference for High Performance Computing, Networking, Storage and Analysis (Supercomputing'18), November 2018.
4. **Deb, D.** "Impact of Peer Instruction and Instructional Scaffolding on a Programming Course" 18th Annual Conference on Information Technology Education (SIGITE '17), October 2017.
5. **Deb, D.**, "On the Integration of Big Data and Cloud Computing Topics", 48th ACM SIGCSE, March 2017.
6. Fuad, M. and **Deb, D.**, "Evidence-based Teaching with the Help of Mobile Response System (MRS), 21st ACM Annual Conference on Innovation and Technology in Computer Science Education (ITiCSE), July 2016, Page 242-243.
7. **Deb, D.** and Fuad, M., "Use of Mobile Application to Improve Active Learning and Student Participation in the Computer Science Classroom", Proceedings of the ACM SIGCSE Conference, March 2014.

GRANTS

Awarded

1. UNC Research Opportunities Initiative (ROI) award, PI, "Winston-Salem State University Center for Applied Data Science (CADS)", \$1,498,625, 2020-2023.
2. NSF, Co-PI, "Collaborative Research: Excellence in Research: Computational Framework and Data Science for Identification", Award Number: 1900087, \$299,962, 2019-2022.
3. NSF, Co-PI, "Targeted Infusion Project: "Integrating Data Science into the Urban Studies and Sustainability Program", Award Number: 1912214, \$249,825.00, 2019-2022.
4. NSF, Senior Personnel, "Collaborative Research: Cybertraining: Conceptualization: Planning a Sustainable Ecosystem for incorporating parallel and distributed computing into undergraduate education", Award Number:2002649, \$423,921, 2019-2021.
5. NSF, PI, "Improving Research and Education of Big Data and Cloud Computing at Winston-Salem State University", Award Number: 1600864, \$307,802, 2016 - 2019.

6. UNC Collaboration Grant, Senior Personnel, "Research Cyberinfrastructure, A collaboration within WSSU, UNCG, and UNCW", \$3000, 2017-2018.
7. WSSU, PI, RIP Award: "Utility-based Resource Provisioning of Big Data Applications on Cloud Environment", \$9,690, 2016 – 2017.
8. WSSU Office of Science Initiatives (OSI) Teaching Innovation Award, PI, "Using Peer Instruction to Improve Student Engagement", \$2,500, 2016 – 2017.
9. Google Community Tech Grant, Co-PI, "Increase awareness of computer science and technology among the under-resourced community of East Winston-Salem", \$83,000, 2016 – 2017.
10. TCPP/NSF, PI, "CDER Center Early Adopter Award for Curriculum Initiative on Parallel and Distributed Computing", \$2500, 2015-2016.
11. NSF, Co-PI, "Targeted Infusion Project: Use of Mobile Application to Improve Active Learning and Student Participation in the Computer Science Classroom", Award Number: 1332531, \$235,091, 2013-2017.
12. Indiana University of Pennsylvania(IUP) senate Fellowship Grant, PI, "Preliminary Investigation on Utilizing Smartphones in Higher Education", \$12,000, 2010-2011.

PROFESSIONAL MEMBERSHIP

1. Association of Computing Machinery (ACM)
2. ACM Special Interest Group on Computer Science Education (SIGCSE)
3. ACM Special Interest Group for Information Technology Education (SIGITE)
4. ACM Special Interest Group on High Performance Computing (SIGHPC)
5. NSF/IEEE-TCPP Parallel and Distributed Curriculum Guideline Revision Committee.
6. IEEE Technical Committee on Parallel Processing (TCPP) Diversity Committee.
7. IEEE Computer Society T&C Adhoc Committee on Ethics, Diversity and Inclusion (EDI)

STUDENT MENTORING

1. Michaelangelo Fields, Thesis: "Use of Machine Learning Methods for Vehicle Predictive Maintenance", 2019-2020.
 - Fields, M., Deb, D., "Use of Machine Learning Methods for Vehicle Predictive Maintenance", Oral presentation at 2020 NSF/AAAS Emerging Researchers National Conference (ERN) in STEM, February 2020.
2. David Rodriguez-romero, Project: "Application of machine learning techniques in predicting stock prices", 2018-2020.
 - Rodriguez-Romero, D., Deb, D., "Stock Price Prediction using Ensemble Learning", Poster presentation at 2020 NSF/AAAS Emerging Researchers National Conference (ERN) in STEM, February 2020.
 - Rodriguez-Romero, D., Deb, D., "Using Sentiment of News Articles to Predict Stock Price Performance", Poster presentation at 2019 NSF/AAAS Emerging Researchers National Conference (ERN) in STEM, February 2019.
3. James Robert, Project: "Data Science for Understanding and Assessing Spatial Justice", 2017-2020.
 - Robert, J., Deb, D., "Data Science for Understanding and Assessing Spatial Justice", Poster presentation at 2019 NSF/AAAS Emerging Researchers National Conference (ERN) in STEM, February 2019.
4. Joel Evans, Project: "Predicting NFL Drafts using Machine Learning", 2018.
5. Sebastian Cousins, Project: "Apache Spark Workload Characterization in AWS cloud", 2016 - 2018.
 - Published at 2018 IEEE IPDPSW conference as student co-author. (See Publications)
 - Cousins, S., Deb, D., "Large-scale Workload Characterization in Apache Spark Framework", Oral presentation at 2018 NSF/AAAS Emerging Researchers National Conference (ERN) in STEM, February 2018. (**Awarded First Prize in the Undergraduate Computer Science Research Category**)

- Cousins, S., Deb, D., “Explore Spark-SQL and its performance using TPC-H Workload”, Poster presented at NC-LSAMP Annual Undergraduate Research Conference, NC state university, November 2017. (**Awarded second prize in Computer Science research category**).
6. George Mathis, Project: “Music Lyrics Analysis via Apache Spark MLlib”, 2017 - 2018.
 - Mathis, G., Cousins S., Deb D., “Music Mood Classification based on Lyrics”, Poster presentation at 2018 NSF/AAAS Emerging Researchers National Conference (ERN) in STEM, February 2018.
 7. Noel Harp, Project: “Sentiment Analysis of Tweets and Movie Reviews”, 2016-2017.
 8. Amari Lewis, Project: “Analyzing Healthcare data to help prevent heart disease”, 2015 - 2016.
 9. Mallek Kannan, Project: “Developing Interactive Mobile App: Prim’s Minimum Spanning Tree (MST) Algorithm” 2015-2016.
 - Published at 2017 ACM SIGCSE conference as student co-author. (See Publications)
 - Kannan, M. and Deb, D., “Design and Development of a Minimum Spanning Tree Mobile Application”, Oral Presentation made at 2016 NSF/AAAS Emerging Researchers National Conference (ERN) in STEM, Washington DC, February 2016.
 10. Matt Meeker, Project: “Developing Interactive Educational Mobile Apps for Sorting Algorithms”, 2014-2015
 - Meeker, M. and Deb, D. “Engaging Students with Interactive Exercise Apps based on Sorting Algorithms”, Oral Presentation made at 2015 NSF/AAAS Emerging Researchers Conference (ERN) in STEM, Washington DC, February 2015.
 11. Jeremy Smith, Project: “Developing Interactive Educational Mobile Apps” 2014-2015
 12. Kionna Davis, Project: “Developing Interactive Mobile App: Sorting”, 2013-2014.
 13. Luel Gonzales, IT Major, Project: “Search and Browse Tool Implementation for WSSU Library Archive”, 2013.
 - Published at 2013 IEEE CSEE&T conference as student co-author. (See Publications)

UNIVERSITY SERVICES

1. Founding Director, Center for Applied Data Science (CADS), WSSU
2. Member, Curriculum Committee, Graduate certificate program in “Data Analytics” at WSSU.
3. Member, Faculty Senate Committee, WSSU, 2017-now.
4. Member, Strategic Planning Committee, WSSU 2015-2017.
5. Member, Reimagine the First Year of Colleague Committee, WSSU, 2015 - to date.
6. Member, Teaching with Technology Faculty Learning Committee, WSSU, 2015 – to date.
7. Member, QEP Writing in the majors (WIM) project, WSSU, 2013 to Date.
8. Member, ABET self-study and accreditation Project, Department of CS, WSSU, 2013, 2018.
9. Department Liaison, Center for Excellence in Teaching and Learning (CETL), WSSU, 2012 - 2017.
10. Member, Center for Community Safety, WSSU, 2013-2014.
11. Chair, Enrichment Committee, Department of CS, WSSU, 2012-2013.
12. Member, Curriculum Development Committee, Indiana University of Pennsylvania (IUP), 2010-2011.
13. Member, Natural Science and Mathematics Technology Committee, IUP, 2010-2011.
14. APSCUF Representative, IUP, 2010-2011.
15. Library Liaison, Department of CS, IUP, 2009-2011.
16. Member, Natural Science and Mathematics Recruitment and Retention Committee, IUP, 2009-2010.
17. Chair, Exam committee, Department of CSE, Shahjalal University of Science and Technology (SUST), Bangladesh.
18. Member, Curriculum Development Committee, Department of CSE, SUST, Bangladesh.
19. Assistant provost, Female Dormitory, SUST, Bangladesh.

PROFESSIONAL ACTIVITIES

Program Chair/Co-Chair/Organizer/Host

1. EduHPC 2020: Workshop on Education for High-Performance Computing, co-located with Supercomputing'20 conference, November 2020. (Organizer)
2. EduHPC 2019: Workshop on Education for High-Performance Computing, co-located with (Supercomputing'19) conference, November 2019. (Program Chair)
3. Hosted CSinParallel Piedmont 2019 Regional Workshop at Winston-Salem State University, June, 2019.
4. Organized NSF Faculty Workshop on Data Science Pedagogy & Practice at Winston-Salem State University, May 2019.
5. EduHPC 2018: Workshop on Education for High-Performance Computing, co-located with (Supercomputing'18) conference, November 2018. (Program Co-chair)

Program Committee Member

1. Special Session: Emerging Machine Learning (ML) Based Techniques in Securing Users' Identity at the 19th IEEE International Conference on Machine Learning and Applications (IEEE ICMLA), 2020.
2. The Twelfth International Conference on Mobile, Hybrid, and On-line Learning (eLmL), 2020.
3. EduHPC 2020, 2019, 2018, 2017, 2016 & 2015: Workshop on Education for High-Performance Computing, co-located with Supercomputing (SC) conference.
4. EduPar 2020, 2019, 2018, 2017, 2016: NSF/TCPP Workshop on Parallel and Distributed Computing Education, co-located with IEEE IPDPS.
5. MUE 2020, 2019, 2015, 2014, 2013: International Conference on Multimedia and Ubiquitous Engineering.
6. ACM Conference on Management of Digital EcoSystems (MEDES) 2017, 2016.
7. International Conference on Innovations in Science, Engineering and Technology, (ICISSET) 2016.

Session Chair

1. Session: Courseware and Curricula, Workshop on Parallel and Distributed Computing Education (EduPar), 2020.
2. Session: Computational Thinking I, ACM technical symposium on Computer science education (SIGCSE), 2019.
3. Session: Paper Session II, Workshop on Education for High-Performance Computing (EduHPC), 2018.
4. 26th International Conference on Software Engineering and Knowledge Engineering (SEKE 2014)

Invited Participant in Meetings with Travel Awards

1. NSF/IEEE-TCPP/CDER Planning Grant Meeting Organized at SC 2019, November 2019.
2. Google Cloud Platform (GCP) Faculty Institute, June 2018.
3. QEM/NSF CISE Forum, July 2018.
4. NSF/IEEE-TCPP/CDER Parallel and Distributed Computing Curriculum Revision Planning Meeting, Organized at IPDPS 2017, May 2017.
5. NSF/IEEE-TCPP/CDER Parallel and Distributed Computing Curriculum Revision Planning Meeting, April 2017.
6. NSF/IEEE-TCPP/CDER workshop on the application of fundamental principles of parallelism and concurrency in CS courses, Organized at SC'16, November 2016.
7. NSF CloudLab Workshop on the use of advanced NSF Cloud facilities, November 2016.
8. NSF/IEEE-TCPP/CDER workshop on the application of fundamental principles of parallelism and concurrency in CS courses, Organized at IPDPS'16, May 2016.
9. NSF/TCPP/CDER Workshop on Broadening Parallel and Distributed Computing ^[1]_{SEP} Undergraduate Education, August 2015.

Editorial Board Member

- ICTACT Journal on Data Science and Machine Learning (IJDSML)

Reviewer

1. Dive into Systems, a gentle introduction to computer systems, computer organization, and parallel computing. A free, online textbook. Beta release, 2020. by Suzanne J. Mathews, Tia Newhall, and Kevin C. Webb.

2. Journal of Parallel and Distributed Computing (JPDC) special issue on PDC/HPC Education, Published by Elsevier, 2018, 2017.
3. SIGCSE 2020, 2019, 2018, 2017: ACM technical symposium on Computer science education.
4. EduHPC 2020,2019,2018, 2017, 2016 and 2015.
5. EduPar 2020, 2019, 2018, 2017, 2016.
6. ItiCSE 2017: 22nd ACM Annual Conference on Innovation and Technology in CS Education.
7. FIE 2017, 2016, 2015: IEEE Frontiers in Education Conference.
8. MUE 2015, 2014, 2013.
9. Central European Journal of Engineering (CEJE), Published by Springer Link, Volume 2, Number 3, 2012.
10. Scientia Iranica, International Journal of Science and Technology, 2012.
11. 6th International Conference on Embedded and Multimedia Computing (EMC), 2011.
12. ITING 2011, 2010: International Conference on Information Technology: New Generations.
13. International Journal for Computers and Their Applications (IJCA), 2010, 2006 and 2007.
14. 28th Australian Computer Science Conference (ACSC), 2005.
15. Book: Causality and Probability in the Sciences, edited by Federica Russo and Jon Williamson, London: College Publications, Texts in Philosophy series, 2007.

Others

1. Completed 3-day long “Big Data on AWS” course that introduces cloud-based big data solutions such as Amazon Elastic MapReduce (EMR), Amazon Redshift, Amazon Kinesis and the rest of the AWS big data platform, January 2017.
2. Completed “AWS Technical Essentials” course that teaches the foundations of cloud computing, storage, and networking on Amazon Web Services (AWS) platform, September 2016.
3. Attended Proposal Development workshop for NSF’s HBCU RIA grant, organized by QEM network, August 2015.
4. Advised/mentored at-risk CS/IT students as part of three weeks long “Student Success Initiative” program offered by CS department, WSSU during Fall, 2014.
5. Participated in a year-long professional development activities offered by Building Connections, Capstone Institute at Howard University, Washington D.C., 2013.
6. Attended week long O’K Scholar institute hosted by WSSU to understand information literacy concepts and developed instructional and evaluation material to incorporate information literacy into courses.
7. Attended the workshop “Forward to Professorship”, sponsored by NSF ADVANCE, June 2010.
8. Member of The Reflective Practice (RP) group at IUP. RP project promotes effective teaching through the use of workshops, monthly meetings, and small teaching circles.
9. Conducted hands-on sessions for the workshop “IT is for Girls” (www.uncg.edu/bae/isom/wit), organized by UNCG and Guilford County Schools in order to increase awareness about IT education and careers among high-school girls.

AWARDS AND HONORS

2007-2017	: Multiple Winston-Salem State University Travel Grants, more than \$15000.00.
2015-2017	: Multiple NSF/IEEE-TCPP Travel Awards, more than \$7500.00
2016	: NSF travel award to attend NSF Advanced cloud facilities workshop, \$1500.00
2015	: QEM network travel grant, \$1500.00.
2010	: NSF ADVANCE travel award, \$1000.00
2009	: Awarded “Certificate of Merit” presented by the Trustees and President of IUP in recognition of faculty productivity in published scholarship during 2009.
2005	: Honorary citizenship by the City of Bozeman, Montana, USA.
2004-2005	: Benjamin Ph.D. fellowship, College of Eng., Montana State University, \$18,000.00.
2000-2001	: Australian Government’s Full Scholarship to study Ms. C. at Adelaide University.

- 1996 :“Woman of the Year”, Shahjalal University of Science and Technology, Bangladesh, 1996.
This is a title given to the best female student of SUST based on academic and extracurricular achievements.
- 1993-1996 : Shahjalal University Merit Scholarship.
- 1990-92 : Bangladesh Government Merit Scholarship.