Texas A&M University-Kingsville
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Email: mais.nijim@tamuk.edu

EDUCATION

2004 – 2007 **New Mexico Tech, Socorro**, New Mexico

Ph.D. in Computer Science

2003-2004 New Mexico State University, Las Cruces, New Mexico

Master of Science in Computer Science

WORK EXPERIENCE

Spet. 2013 – Present: Associate Professor, Texas A&M University – Kingsville, Department of Electrical Engineering and Computer Science

Aug. 2010 – Spet. 2013: Assistant Professor, Texas A&M University-Kingsville, Department of Electrical Engineering and Computer Science

Aug. 2007 - June 2010: Assistant Professor, The University of Southern Mississippi, School of Computing

BIBLIOGRAPHY OF PUBLICATIONS

Refereed Journal Publications

- SBUD: Energy Efficient Mobile Storage Systems using Solid State and Buffer Disks, work on progress, will be submitted to IEEE Transactions on Computers
- M. Nijim, X. Qin, M. Qiu, K.-L. Li, "An Adaptive Energy-Conserving Strategy for Parallel Disk Systems", *Future Generation Computer Systems: The Int'l Journal of Grid Computing*, vol. 29, pp. 196-207, 2013.
- Mais Nijim, Muhittin yilmaz, Xiao Qin, CaPaS: An Optimal Security-Aware Cache Replacement Algorithm for Cluster Storage Systems, *International Journal of High Performance System Architecture*, Vol. 3, No. 4, 2011, pp. 216-232.
- Z. L. Zong, J. Job, X. S. Zhang, M. Nijim, and X. Qin, "Case study of visualizing global user download patterns using Google Earth and NASA World Wind, Journal of Applied Remote Sensing 6 (1), 061703 (October 09, 2012); doi: 10.1117/1.JRS.6.061703.

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- Taeg Hyun Kang, Young Lee, Mais Nijim, Task-Based Visualization using Merged View, *Journal of Communication and Computer*, Vol. 9, no. 6, pp. 665-668, June 2012.
- Mais Nijim, Conserving Energy in Real Time Parallel Disk Systems, Journal of Computing, Volume 3, issue 12, December 2011.
- Mais Nijim, Young Lee Nuri Yilmazer, Remzi Seker," A DATA MINING ALGORITH FOR MULTI LEVEL PREFETCHING IN STORAGE SYSTEMS", *Proc. of Ubiquitous Computing and Communication Journal*, August 2011, pp. 10-19.
- M. Nijim, K. Bellam, Z. Zong, S. Yin, X. Qin" Quality of Security Adaptation in parallel Disk Systems", Original Research Article *Journal of Parallel and Distributed Computing*, Volume 71, Issue 2, February 2011, Pages 288-301 (Acceptance rate 21%)
- Manzanares, A. Roth, X. -J Ruan, S. Yin, M. Nijim, and X. Qin, "Conserving Energy in Real-Time Storage Systems with I/O Burstiness" *ACM Transactions on Embedded Computing Systems*. Forthcoming, Volume 9, Issue 3, Feb. 2010 (21 pages).
- X. Qin, M. Alghamdi, M.Nijim, Z. Zong, K.Bellam, "Improving security of real-time wireless network through packet scheduling" *IEEE Transactions on Wireless Communications*, vol. 7, no. 9, pp. 3273-3279, Sept. 2008.
- Z. Zong, M. Nijim, X. Qin, "Energy Efficient Scheduling for Parallel Applications on Mobile Clusters, "Cluster Computing: *The Journal of Networks, Software Tools and Applications*, vol. 11, no. 1, pp. 91-113, 2008.
- M.Nijim, X. Qin, and Z. Zong, "StReD: A Quality of Security Framework for Storage Resources in Data Grids" *Future Generation Computer Systems, The Int'l Journal of Grid Computing*, Volume 23, issue 6, Pages: 816-824, July 2007.
- M.Nijim, X.Qin, and T.Xie, "Modeling and Improving Security of a Local Disk System for Write-Intensive Workloads," ACM Transactions on Storage, vol. 2, no. 4, pp. 400-423, Nov. 2006.
- M.Nijim, T.Xie, and X.Qin, "Performance Analysis of an Admission Controller for CPU- and I/O-Intensive Applications in Self-Managing Computer Systems," *ACM Operating Systems Review*, Vol. 39, No. 4, Pages: 37-45, October 2005.

Conference Publications

- N. Mantrawadi, M. Nijim, L. Clapp, A. Martinez, "VOC emission monitoring at Eagle Ford Shale Drill site using Wireless Sensor Network for understanding emission generation and dispersion", Proc. Shale Energy Conference, ASCE 2014.
- S. Saha, A. Biswas, M. Nijim, L. McLauchlan, "Energy Efficiency Evaluation of Data Mining Prefetching Algorithms for Hybrid Storage Systems", *Proc.* 7th *IEEE Green Technologies Conference*, April 2014.
- M. Nijim, S. Saha, A. Biswas, "Analysis and Optimization of Data Mining Prefetching Algorithms: DM-PAS", Proc., the international Workshop on Wireless Mesh and Ad-hoc Networking, ICCCN, 2014.

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- M. Nijim, N. Mantrawadi, "Paved and Unpaved Road Monitoring Using Unmanned Ariel Vehicles for Avoiding Road Damage, International Engineering Conference in Design and Innovation in Sustainability, 2014.
- H. Kamuru, M. Nijim," Develop a Solution for Protecting and Securing Enterprise Networks from Malicious Attacks, SPIE Defense and Security Symposium, May 2014.
- M. Nijim, S. Saha, Y.Nijim, Central and Distributed GPU Based Parallel Disk Systems for Data Intensive Applications, Submitted to the 11th International Conference on Mobile Systems and Pervasive Computing, 2014.
- K. M. Nazmus Sakib & M. Nijim, "Analysis of a security protocol in a cluster storage system", DATA 2013.
- Nikhil Mantrawadi, Mais Nijim, Young Lee, Object identification and classification in a high resolution satellite data using data mining techniques for knowledge extraction, accepted to IEEE Syscon, pp. 750-755, April 2013.
- Mais Nijim, Young Lee, Kiran Bellam, HyBuM: Hybrid Energy Efficient Architecture for Mobile Storage Systems, 9th IEEE International Conference on Information Technology: New Generation, April 2012 (Best Paper Award Nomination).
- R. Fares, B. Romoser, Z. Zong, M. Nijim, X. Qin, "Performance Evaluation of Traditional Caching Policies on a Large System with Petabytes of Data, *Proc.* 7th *IEEE International Conference on Networking, Architecture*, and Storage, June 2012 (Best Paper Award Nomination).
- Z. L. Zong, X. Qin, X. J. Ruan, M. Nijim, "Heat-Based Dynamic Data Caching: A Load Balancing Strategy for Energy-Efficient Parallel Storage Systems with Buffer Disks", *IEEE Symposium on Massive Storage Systems and Technologies*, 2011, pp. 1-6.
- Mais Nijim, Yousef Nijim, Remzi Seker, Vamshi Reddy, "DM-PAS: A Data-Mining Prefetching Algorithm for Storage System, "*IEEE International Symposium on Advanced of High Performance Computing and Networking*, September 2011.
- Mais Nijim, Data Mining Prefetching Algorithm for Hybrid Storage System, 5th International Conference on Information Technology, ICIT' 2011
- N. Kanaskar, J. Bian, R. Seker, M. Nijim, and N. Yilmazer, Dynamical System Approach to Insider Threat Detection, IEEE SysCon 2011, Proceedings of 2011, pp. 232-238.
- M. Nijim, "Modeling Speculative Prefetching for Hybrid Storage Systems", *IEEE NAS* 2010, pp. 143-151.
- M. Nijim, Ziliang Zong, Xiao Qin, Yousef Nijim," Multi-level Prefetching Algorithm for Hybrid Storage Systems: Algorithm, Modeling, and Evaluation", *IEEE International Conference on Parallel Processing*, 2010, pp. 44-49.
- S. Yin, M. I. Alghamdi, X.-J. Ruan, M. Nijim, A. Tamilarasan, Z.-L. Zong, X. Qin, and Y.-M. Yang, "Improving Energy Efficiency and Security for Disk Systems," *Proc. 12th IEEE International Conference on High Performance Computing and Communications (HPCC-10)*, Melbourne, Australia, September 1-3, 2010, pp. 442-449, (Acceptance Rate: 19%, 58/304)
- M. Nijim, A. Manzanares, X.-J. Ruan, X. Qin, "HYBUD: An Energy-Efficient Architecture for Hybrid Parallel Disk Systems", *Proc. The 18th IEEE Int'l Conference on Computer Communications and Networkd (ICCCN)*, 2009, pp. 1-6, (Acceptance rate 27%).

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- Manzanares, Xiaojun Ruan, S. Yin, M. Nijim, X. Qin, and W. Luo, "Energy-Aware Prefetching for Parallel Disk Systems: Algorithms, Models, and Evaluations," *Proc. The 8th IEEE International Symposium on Network Computing and Applications*, 2009, pp. 90-97.
- Xiaojun Ruan, A. Manzanares, S. Yin, M. Nijim, and X. Qin, "Can We Improve Energy Efficiency of Secure Disk Systems without Modifying Security Mechanisms?" *Proc. the 4th IEEE International Conference on Networking, Architecture, and Storage* (NAS), Zhang Jia Jie, China, July 2009, pp. 413-420, (acceptance rate: 25.3%, 45/178)
- M. Nijim, "Modelling A Hybrid Energy-Efficient Architecture for Parallel Disk Systems" Proc. The 4th International Conference on Information Technology, July 2010.
- M. Nijim, X. Qin, Z.-L. Zong, Xiaojun Ruan and K. Bellam, "Security-Aware Cache Management for Cluster Storage Systems," *Proc. the 17th IEEE International Conference Computer Communications and Networks* (ICCCN), St. Thomas, Virgin Islands, Aug. 2008. (acceptance rate (25%).
- Roth, A. Manzanares, K. Bellam, M.Nijim, X. Qin, : Energy Conservations for Real-Time Disk Systems with I/O Burstiness", *Proc. IEEE Int'l Workshop Next Generations Autonomous Storage and High performance Computing*, ST. Thomas, Virgin Islands, Aug. 2008
- M. Nijim, A. Manzanares, X. Qin, "An Adaprive Energy-Conserving Strategy for Parallel Disk Systems", Proc. The 12th *IEEE Int's Symp. Distributed Simulation and Real Time Applications* (DS-RT), Oct. 2008, pp. 75-82.
- Xiaojun Ruan, X. Qin, M. Nijim, Z.-L. Zong, and K. Bellam, "An Energy-Efficient Scheduling Algorithm Using Dynamic Voltage Scaling for Parallel Applications on Clusters," *Proc. 16th IEEE International Conference on Computer Communications and Networks* (ICCCN), Honolulu, Hawaii, Aug. 2007, pp. 735-740, (acceptance rate: 29%)
- Z.-L. Zong, X. Qin, M. Nijim, Xiaojun Ruan, K. Bellam, and M. Alghamdi, "Energy-Efficient Scheduling for Parallel Applications Running on Heterogeneous Clusters," *Proc. 36th IEEE International Conference on Parallel Processing* (ICPP), Sept. 2007, pp. 19.
- K. Bellam, R. K. Vudata, X. Qin, Z.-L. Zong, M. Nijim, and Xiaojun Ruan, "Interplay of Security and Reliability using Non-Uniform Checkpoints," *Proc. 16th IEEE International Conference on Computer Communications and Networks* (ICCCN), Honolulu, Hawaii, Aug. 2007, pp. 663-668, (acceptance rate: 29%).
- M. Nijim, Adel Ali," An Energy Efficient Framework Using Non-Volatile Flash Memory for Networked Storage System", *Proc. IEEE Conference on Information Reuse and Integrations*, Las Vegas, July 2008, pp. 463-468.
- M. Nijim, Adel Ali," AdSeD: An Adaptive Quality of Security Control in Disk Systems:, proc. 11th *International Conference on Computational Science and Engineering (CSE)*, Sao Paulo, Brazil, 2008, pp. 421-428.
- M. Nijim, T. Xie, X. Qin," Integrating a Performance Model in Self-Managing Computer Systems under Mixed Workload Conditions", Proc. *IEEE international Conference on Information Reuse and Integrations*, 2005, pp. 132-137.

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- M. Nijim, Q. Qin, T. Xie, M. Alghamdi, "AWARDS: An Adaptive Write Scheme for Secure Local Disk Systems", Proc. 25th IEEE Int'l Performance Computing and Communications Conf. (2005), pp.-192.
- T. Xie, X. Qin, M. Nijim," Sharp: A New Real-Time Scheduling Algorithm to Improve Security of Parallel Applications on Heterogeneous Clusters", *Proc. 25th IEEE Int'l Performance Computing and Communications (IPCCC)*, April 2006, Pages: 8, pp.-64.
- M. Nijim, T. Xie, M. Alghamdi, "An Adaptive Strategy for Secure Distributed Disk Systems", *NASA/IEEE Conference on Mass Storage Systems and Technologies*, WIP session, May 2006.
- T. Xie, X. Qin, M. Nijim, "Solving Energy-Latency Dilemma: Task Allocation for Parallel Applications in Heterogeneous Embedded Systems:, *Proc. 35th IEEE International Conference on Parallel Processing (ICPP)*, Columbus, Ohio, Aug. 2006, pp. 12-22.
- M. Nijim, X. Qin, T. Xie," An Adaptive Quality of Security Control in Networked Parallel Disk Systems", *Proc. 15th IEEE Int'l Conference on Computer Communications and Networks (ICCCN)*, Arlington, Virginia, 2006, pp. 455-460.
- Z. Zong, M. Nijim, X. Qin, "HAGEES: A High Availability Guaranteed Energy-Efficient Scheduling Strategy for High-Performance Clusters" *Proc. the 7th Symp. the Los Alamos Computer Science Institute*, Santa Fe, NM Oct. 2006.
- X. Qin, M. Alghamdi, M. Nijim, Z.-L. Zong, and K. Bellam," Scheduling of Periodic Packets in Energy-Aware Wireless Networks", *Proc. the 26th IEEE Int'l Performance Computing and Communications Conf.* (IPCCC'07), April 2007, pp. 210-217.
- K. Bellam, Z.Zong, M. Nijim, M. Alghamdi, X. Qin," Integrating Fault Recovery and Quality of Security in Real-time Systems", Proc. IEEE Int"l Symp. On Ubisafe Computing, Ontario Canada, May 2007, pp. 500-505.

LIST OF PRESENTATIONS

- Mais Nijim, "Paved and Unpaved Road Monitoring", Eagle ford Shale center workshop, Cotulla 2014
- Mais Nijim, "Advanced technologies for Pipeline Monitoring", South Texas Emergency Response Workshop, City of Cotulla, August 15, 2013.
- K. M. Nazmus Sakib & M. Nijim, "Analysis of a security protocol in a cluster storage system", DATA 2013.
- Nikhil Mantrawadi, Mais Nijim, Young Lee, Object identification and classification in a high resolution satellite data using data mining techniques for knowledge extraction, accepted to IEEE Syscon, pp. 750-755, April 2013.
- Mais Nijim, Nikhil Mantrawadi, "Real time intelligent system processing high-resolution satellite data for environmental data analysis", CREST-RESSACA Environmental and Energy Sustainable Conference, April 26, 2012. (Nikhil Mantrawadi is my graduate student).

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- Mais Nijim, Young Lee, Kiran Bellam, HyBuM: Hybrid Energy Efficient Architecture for Mobile Storage Systems, 9th International Conference on Information Technology: New Generation, April 2012.
- Mais Nijim, Yousef Nijim, Remzi Seker, Vamshi Reddy, "DM-PAS: A Data-Mining Prefetching Algorithm for Storage System, "*IEEE International Symposium on Advanced of High Performance Computing and Networking*, September 2011.
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- M. Nijim, A. Manzanares, X.-J. Ruan, X. Qin, "HYBUD: An Energy-Efficient Architecture for Hybrid Parallel Disk Systems", *Proc. The 18th IEEE Int'l Conference on Computer Communications and Networkd (ICCCN)*, 2009, pp. 1-6, (Acceptance rate 27%).
- M. Nijim, "Modelling A Hybrid Energy-Efficient Architecture for Parallel Disk Systems" Proc. The 4th International Conference on Information Technology, July 2010.
- M. Nijim, X. Qin, Z.-L. Zong, Xiaojun Ruan and K. Bellam, "Security-Aware Cache Management for Cluster Storage Systems," *Proc. the 17th IEEE International Conference Computer Communications and Networks* (ICCCN), St. Thomas, Virgin Islands, Aug. 2008. (Acceptance rate (25%).
- M. Nijim, A. Manzanares, X. Qin, "An Adaprive Energy-Conserving Strategy for Parallel Disk Systems", Proc. The 12th *IEEE Int's Symp. Distributed Simulation and Real Time Applications* (DS-RT), Oct. 2008, pp. 75-82.
- M. Nijim, Adel Ali," An Energy Efficient Framework Using Non-Volatile Flash Memory for Networked Storage System", *Proc. IEEE Conference on Information Reuse and Integrations*, Las Vegas, July 2008, pp. 463-468.
- M. Nijim, Adel Ali," AdSeD: An Adaptive Quality of Security Control in Disk Systems:, proc. 11th *International Conference on Computational Science and Engineering (CSE)*, Sao Paulo, Brazil, 2008, pp. 421-428.
- M. Nijim, T. Xie, X. Qin," Integrating a Performance Model in Self-Managing Computer Systems under Mixed Workload Conditions", Proc. *IEEE international Conference on Information Reuse and Integrations*, 2005, pp. 132-137.
- M. Nijim, Q. Qin, T. Xie, M. Alghamdi, "AWARDS: An Adaptive Write Scheme for Secure Local Disk Systems", *Proc. 25th IEEE Int'l Performance Computing and Communications Conf.* (2005), pp.-192.
- M. Nijim, T. Xie, M. Alghamdi, "An Adaptive Strategy for Secure Distributed Disk Systems", *NASA/IEEE Conference on Mass Storage Systems and Technologies*, WIP session, May 2006.
- M. Nijim, X. Qin, T. Xie," An Adaptive Quality of Security Control in Networked Parallel Disk Systems", *Proc. 15th IEEE Int'l Conference on Computer Communications and Networks (ICCCN)*, Arlington, Virginia, 2006, pp. 455-460.

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RESEARCH AND CREATIVE ACTIVITIES

Funded Research

1. Security Engineering: Development of Curriculum and Research at Texas A&M University-

Kingsville (phase 1)

Source: Homeland Security

Role: CoPI (Early Faculty CAREER AWARD for the CoPIs)

Amount: \$700,000

Duration: Sept 2012-August 2014 (2 years)

2. Security Engineering: Development of Curriculum and Research at Texas A&M University-

Kingsville (phase 2)

Source: Homeland Security

Role: CoPI (Early Faculty CAREER AWARD for the CoPIs)

Amount: \$700,000

Duration: Sept 2014-August 2017 (4 years)

3. Robert Noyce Teacher Scholarship Program Capacity Building: Future STEM Teachers in South

Texas

Source: National Science Foundation (NSF)

Role: CoPI

Amount: \$291,352

Duration: August 1, 2012- July 31, 2014 (2 years)

4. Wireless Sensor Network Lab in support of Graduate Education (Equipment Fund)

Source: Promoting Postbaccalaureate Opportunities for Hispanic Americans

Role: PI

Amount: \$40,300 Duration: August 2012

5. FastStor: Data Mining Based Multi-Layer Prefetching for Hybrid Storage Systems

Source: National Science Foundation (NSF)

Role: PI

Amount: \$99,999

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Duration:08/01/2010-08/01/2013 (3 years)

6. FastStor: Data Mining Based Multi-Layer Prefetching for Hybrid Storage Systems

Source: National Science Foundation (NSF)

Role: PI

Amount: \$16,000

Duration: 08/01/2011-08/01/2012 (1 year)

7. FastStor: Data Mining Based Multi-Layer Prefetching for Hybrid Storage Systems

Source: National Science Foundation (NSF)

Role: PI

Amount: \$16,000

Duration: 08/01/2012-08/01/2013 (1 year)

8. Development of an Intelligent Wireless Sensor Network for Monitoring Air Quality at Natural Gas

Operation in the Eagle Ford Shale

Source: Frank H. Dotterweich College of Engineering, Texas A&M University- Kingsville

Role: PI

Amount: \$20,000

Duration: 2011-2012 (1 year)

9. Engineering and Science Frontiers (ESF) Summer Camp

Source: Texas Higher Education Coordinating Board

Role: CoPI

Amount: \$20,000

Duration: July/2011 (one month)

10. Air Quality Monitoring of Drilling Operations in the Eagle Ford Shale

Source: Research Partnership to Secure Energy for America (RPSEA)

Role: CoPI

Amount: \$100,000

Duration: 2012-2014 (2 years)

Duration: 2007-2008 (1 year)

Proposals Submitted (including under current review)

1. PFI: BIC –Hybrid Oil/Gas Pipeline Monitoring and First Response System

Source: National Science Foundation (NSF)

Role: PI

Amount: \$800,000

Duration: 2014-2016 (Pending)

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2. Oil/Gas Pipeline Monitoring and First Response System using Smart Wireless Sensor Network Source: U.S. Dot Pipeline and Hazardous materials Safety Administration, Competitive Academic

Agreement Program (CAAP)

Role: PI

Amount: \$100,000

Duration: 2014-2016 (Pending)

3. UAV Based Remote Pipeline Inspection

Source: U.S. Dot Pipeline and hazardous Materials Safety Administration, Comptetive Academic

Agreement Program (CAAP)

Role: CoPI

Amount: \$100,000

Duration: 2014-2016 (Pending)

4. Changing the Perspective: Toward A Model for Integrating Entrepreneurship in Computing

Curricula
Source: NSF

Amount: \$200,000

Duration 2014-2016 (Pending)

5. CAREER: Centralized and Distributed Storage System with Managed I/O

Source: National Science Foundation (NSF)

Role: PI

Amount: \$400,000

Duration: 2013-2018 (5 years)

6. Data Intensive Storage and Processing System- Centralized and Distributed

Source: Defense Advanced Research Project Agency (DARPA)- Young Faculty Award

Role: PI

Amount: \$271,815

Duration: 2012-2014 (2 years)

7. A Disaster Messaging System for Mobile Devices: Integrating Disaster Data Capturing and

Location-Based Comparison Model

Source: AT&T

Role: PI

Amount: \$25,000

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Duration: 2012 (8 months)

8. 3D Video Quality Measurement

Source: NPRP Qatar

Role: PI

Amount: \$1000,000

Duration: 2012-2015 (3 years)

9. 3D Video Quality Measurement

Source: NPRP Qatar

Role: PI

Amount: \$1000,000

Duration: 2011-2014 (3 years)

10. Collaborative Research: II-New: STRESS – A Suite of Software Tools for Research on Energy-

Efficient Storage Systems

Source: National Science Foundation

Role: PI

Amount: \$50,000

Duration: 2012-2015 (3 years)

11. A Coupled Hydrodynamic and Biogeochemical Regional Ocean Model for the Western Gulf of Mexico Coast: A Case Study for the Copano Bay of Mission Aransas National Estuarine Research

Reserve

Source: EPA Gulf of Mexico

Role: Co-PI

Amount: \$180,242

Duration: 2012-2015 (3 years)

12. A Regional Ocean Model for the Western Gulf Coast

Source: University Research Award

Role: PI

Amount: \$150,000

Duration: 2012-2013 (1 year)

13. Nano-structured Sensors with Tunable Pore Size for Detecting Volatile Organic Compounds in

Oceanic Waters and Air Source: EPA Gulf of Mexico

Role: Co-PI

Amount: \$600,000

Duration: 2013-2016 (3 years)

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14. Security Engineering: Development of Curriculum and Research at Texas A&M University-

Kingsville

Source: Homeland Security

Role: Co-PI

Amount: \$500,000

Duration: 2011-2014 (3 years)

15. Robert Noyce Teacher Scholarship Program Capacity Building: Future STEM Teachers in South

Texas

Source: National Science Foundation

Role: Co-PI

Amount: \$300,000

Duration: 2013-2016 (3 years)

16. CSR: Small: Collaborative Research: FastStor: Data Mining Based Multilayer Prefetching for

Hybrid Storage Systems

Source: National Science Foundation

Role: PI

Amount: \$16,000

Duration: 2012-2013 (1 year)

17. CAREER: Modular GPU Central and Distributed Based Parallel Disk Systems for Extensive Data

Storage and Processing

Source: National Science Foundation

Role: PI

Amount: \$400,000

Duration: 2011-2016 (5 years)

18. Collaborative Research- Changing the Perspective: Towards a Model for Integrating

Entrepreneurship in Computing Curricula

Source: National Science Foundation

Role: PI

Amount: \$139,000

Duration: 2011-2013 (2 years)

19. Collaborative Research- Changing the Perspective: Towards a Model for Integrating

Entrepreneurship in Computing Curricula

Source: National Science Foundation

Role: PI

Amount: \$199,995

Duration: 2012-2014 (2 years)

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20. Growing Scientists: New Models of Professional Development that Support Teacher Learning and

Student Engagement for Rural Schools Source: National Science Foundation

Role: Co-PI Amount: \$402,307

Duration: 2011-2014 (3 years)

21. A Sensor Web Testbed to Support Surface Hydrological Studies

Source: National Science Foundation

Role: Co-PI Amount: \$234,618

Duration: 2011-2014 (3 years)

22. Development of an Intelligent Alarm Management System

Source: National Priorities Research Program, Qatar

Role: Co-PI

Amount: \$1000,000

Duration: 2011-2014 (3 years)

23. CAREER: Multicor-FastStor: A Multilevel Prefetching Algorithm for Multicore-Based Hybrid

Storage Systems

Source: National Science Foundation

Role: PI

Amount: \$401,136

Duration: 2010-2015 (5 years)

24. Research for Sustainable Development of South Texas Coastal Bend Area

Source: EARMARK

Role: Co-PI

Amount: \$3000,000

Duration: 2010-2015 (5 years)

25. Development of an Intelligent Alarm Management System

Source: National Priorities Research Program, Qatar

Role: Co-PI

Amount: \$1000,000

Duration: 2010-2013 (3 years)

26. Security Engineering: Development of Curriculum and Research at Texas A&M University-

Kingsville

Source: Homeland Security

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Role: Co-PI

Amount: \$500,000

Duration: 2012-2015 (3 years)

27. NOAA Cooperative Science Center at Minority Serving Institutions

Source: NOAA

Role: Senior Investigator Amount: \$15,000,000

Duration: 2010-2015 (5 years)

28. IGERT: Environmental Technology (EvTech) as basis for Graduate Students Training

Source: National Science Foundation

Role: Senior Personnel Amount: \$5000,000

Duration: 2011-2016 (5 years)

PROFESSIONAL GROWTH ACTIVITIES

- 1. Member, IEEE
- 2. TPC member for IEEE MASS 2014
- 3. Attended WKI Program at University of Texas Pan American, July 10-11, 2012.
- 4. Attended Gulf of Mexico Alliance Summit June 19-21,2012, Corpus Christi, TX.
- 5. Session Chair: 4th International Conference on Information Technology, Amman, Jordan, June 2009.
- 6. Attended 2011 Quality Education for Minorities, Faculty Early Career Development (CAREER) proposal, QEM workshop.
- 7. College of Engineering best paper award, May 2011.
- 8. Deans Best Researcher Award, May 2013.
- 9. Computer Science Faculty of the Year, May 2012.
- 10. Committee Member and reviewer on:
 - a. IEEE International System Conference SysCon 2013
 - b. IEEE International Conference on Networking, Architecture, and Storage (NAS 2010)
 - c. 11th International Conference on Computational science and Engineering (CSE'08),
 - d. The 4th International Conference on Information Technology (ICIT 09)
 - e. IEEE Symposium on Computers and Communications (ISCC'08)
 - f. IEEE International Conference on Networking, Architecture, and Storage (NAS 2012)
- 11. Technical Reviewer:
 - a. IEEE Transactions on Computers

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- b. IEEE Transactions on Parallel and Distributed Systems
- c. ACM Transactions on Embedded Computing Systems
- d. IEEE Transaction on Storage
- e. IEEE Transaction on Systems, Man, and Cybernetics

Service Activities

- 1. Member of the research cluster committee (Fall 2010 present)
- 2. Faculty Search Committee member 2014
- 3. Recruitment Committee member 2014
- 4. Very active member of the Eagle ford shale center, done many presentations, designed the website, get in touch with companies to establish collaborations such as Raytheon (2012-2014).
- 5. The coordinator of the computational science cluster (Fall 2010-present)
- 6. Judge for sensor design May 2014
- 7. Judge for Poster Competition, April 2014.
- 8. Freshman Convocation Committee (Fall 2011-present)
- 9. Executive Secretary for the Women Council
- 10. Represented Department during student recruitment events and visit by high school students at various times
- 11. Judge for the Coastal Bend BEST Robotics competition, 2010
- 12. Visited South Texas College for recruitment in Fall 2010
- 13. Overseas recruitment efforts resulted in 2 outstanding graduate students from Bangladish
- 14. Attended graduation ceremony in Spring 2011 and Spring 2012
- 15. Help in lining up students in graduation ceremony May 2012
- 16. Attended the high school recruitment in the convention center, Kingsville, April 2012
- 17. Judge for engineering student design and research conference, April 2011 and April 2012
- 18. College of Engineering graduate students poster judging, April 2012
- 19. College of Engineering graduate students poster judging, April 2013
- 20. Co-chair of Computer Science Faculty Search Committee, Summer 2013.
- 21. Member of Computer Science Faculty Search Committee, Summer 2013.

Awards

- 1. Faculty of the year, Department of Electrical Engineering and Computer Science, May 2012
- 2. Deans award, best paper, May 2011
- 3. Deans award, Outstanding research, May 9th 2013.