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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.

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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.

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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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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-

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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)

<u>Proposals Submitted (including under current review)</u>

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-

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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:

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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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