

# Curriculum Vitae

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## Academic Degrees

- PhD University of Texas, Arlington, TX, USA.  
Computer Science, (January 2002 – August 2007).
- BS Ghulam Ishaq Khan Institute of Engineering Sciences and Technology, Topi, Pakistan.  
Computer Systems Engineering, (August 1995 – May 1999).

## Research Interests

- Sustainable Computing:** High and low level {data, task, and communications} schedulers, workflow managers, and application-level dynamic fine-tuning.
- Social Networking:** Disaster management, search and rescue, classroom instructional use, and malicious behavior detection.
- Robust Backbone Networks for Cyberinfrastructures:** Resource provisioning, system recovery from catastrophic anomalies, and inter-layer/inter-domain protocols.
- Reliability:** Robustness, trust, and security.

## Professional Experience

### Current Appointments

Assistant Professor of Electrical and Computer Engineering (since Sep. 2008),  
Director of NDSU-CIIT Green Computing and Communications Laboratory (since Nov. 2009),  
Adjunct Professor of Computer Science and Operations Research (since Feb. 2011),  
North Dakota State University, Fargo, ND, USA.

Adjunct Professor of Computer Science (since Oct. 2009),  
COMSATS Institute of Information Technology, Islamabad, Pakistan.

September 2007 – August 2008

Postdoctoral Research Fellow,  
Colorado State University, Fort Collins, CO, USA.

January 2002 – August 2007

Teaching Assistant (January 2002 – December 2002, June 2003 – May 2007), Instructor (January 2003 – May 2003, June 2007 – August 2007), University of Texas, Arlington, TX, USA.

May 1999 – December 2001

Systems Engineer,  
Ghulam Ishaq Khan Institute of Engineering Sciences and Technology, Topi, Pakistan.

## Research and Educational Grants

The combined support totaling in excess of \$1.5M.

*Energy-efficient Resource Allocation in Autonomic Cloud Computing* (**co-PI**, with P. Bouvry and T. Engel), Funding agency: **Fonds National de la Recherche Luxembourg (FNR)**, C09/IS/05, €432,000, January 2010 — December 2012.

*A Hybrid Solar Water Heating System using CO<sub>2</sub> as Working Fluid* (**co-PI**, with S. Krishnan, N. Khan, and W. H. Bokhari), Pakistan-US Science and Technology Cooperation Program, Funding agency: **US Department of State** (jointly administered by the National Academies and Higher Education Commission of Pakistan), \$296,043, November 2010 — November 2012.

*Trust-assurance for Critical Infrastructures in Multi-Agents Environments* (**co-PI**, with B. Gâteau, D. Khadraoui, P. Bouvry, E. Niemela, and O. Boissier), Funding agency: **Fonds National de la Recherche Luxembourg (FNR)**, C08/IS/21, €482,000, January 2009 — December 2010.

*Development of Cloud Computing Thematic Research and Educational Program* (**co-PI**, with N. Min-Allah), Program for Collaborative Research, Funding agency: **Higher Education Commission of Pakistan**, PKR365,000, May 2010 — August 2010.

*PMU Placements in Large-scale Power Networks* (**PI**), Electrical and Computer Engineering Department Research Funds, Funded by: **North Dakota State University**, \$4,294, February 2010 — May 2010.

*Energy-efficient Resource Allocation in Large-scale Systems* (**PI**), Electrical and Computer Engineering Department Research Funds, Funded by: **North Dakota State University**, \$60,000, September 2008 — August 2010.

## Honors and Awards

Chinese Academy of Sciences Young International Scientist Fellowship, 2012.

Researcher of the Year Award, College of Engineering and Architecture, North Dakota State University, Fargo, ND, USA, 2011.

Best Paper Award, ACM/IEEE International Conference on Green Computing and Communications (GreenCom), Hangzhou, China, December 2010.

Nortel Outstanding Doctoral Dissertation Award, University of Texas, Arlington, TX, USA, 2008.

John Steven Schuchman Memorial Outstanding Doctoral Student Award, University of Texas, Arlington, TX, USA, 2007.

Inducted in Upsilon Pi Epsilon, the Computer Science Honors Society, 2007.

## Publications

A total of **125** publications are listed in the reverse chronological order.  
Journal articles: 42; conference papers: 60; book chapters: 12 (= **114** refereed publications.)  
Journal editorials: 6; edited proceedings: 2; technical reports: 3 (= **11** non-refereed publications.)  
Only published and forthcoming (accepted) articles are listed.  
h-index: 10 and i10-index: 10.

### Journal Articles

42. J. Kolodziej and **S. U. Khan**, “Data Scheduling in Data Grids and Data Centers: A Short Taxonomy of Problems and Intelligent Resolution Techniques,” *LNCS Transactions on Computational Collective Intelligence*. (Forthcoming.)
41. G. Gebczynski, J. Kolodziej, and **S. U. Khan**, “Secure-Sim-G: Security-Aware Grid Simulator Basic Concept and Structure,” *Journal of Telecommunications and Information Technology*. (Forthcoming.)
40. G. L. Valentini, W. Lassonde, **S. U. Khan**, N. Min-Allah, S. A. Madani, J. Li, L. Zhang, L. Wang, N. Ghani, J. Kolodziej, H. Li, A. Y. Zomaya, C.-Z. Xu, P. Balaji, A. Vishnu, F. Pinel, J. E. Pecero, D. Kliazovich, and P. Bouvry, “An Overview of Energy Efficiency Techniques in Cluster Computing Systems,” *Cluster Computing*. (Forthcoming.)
39. D. Kliazovich, P. Bouvry, and **S. U. Khan**, “DENS: Data Center Energy-Efficient Network-Aware Scheduling,” *Cluster Computing*. (Forthcoming.)
38. L. Wang and **S. U. Khan**, “Review of Performance Metrics for Green Data Centers: A Taxonomy Study,” *Journal of Supercomputing*. (Forthcoming.)
37. J. Li, H. Wang, and **S. U. Khan**, “A Semantics-Based Approach to Large-Scale Mobile Social Networking,” *ACM/Springer Mobile Networks and Applications*. (Forthcoming.)
36. S. Zeadally, **S. U. Khan**, and N. Chilamkurti, “Energy-Efficient Networking: Past, Present, and Future,” *Journal of Supercomputing*. (Forthcoming.)
35. J. Li, **S. U. Khan**, and Q. Li, “An Efficient Event Delivery Scheme in Mobile Ad Hoc Communities,” *International Journal of Communication Networks and Distributed Systems*. (Forthcoming.)
34. L. Wang, **S. U. Khan**, and J. Dayal, “Thermal Aware Workload Placement with Task-Temperature Profiles in a Data Center,” *Journal of Supercomputing*. (Forthcoming.)
33. S. Mustafa, S. A. Madani, K. Bilal, K. Hayat, and **S. U. Khan**, “Stable Path Multi-channel Routing with Extended Level Channel Assignment,” *International Journal of Communication Systems*. (Forthcoming.)
32. **S. U. Khan** and N. Min-Allah, “A Goal Programming Based Energy Efficient Resource Allocation in Data Centers,” *Journal of Supercomputing*. (Forthcoming.)
31. A. R. Khan, S. A. Madani, K. Hayat, and **S. U. Khan**, “Clustering-Based Power Controlled Routing for Mobile Wireless Sensor Networks,” *International Journal of Communication Systems*. (Forthcoming.)

30. D. Kliazovich, P. Bouvry, and **S. U. Khan**, “GreenCloud: A Packet-level Simulator of Energy-aware Cloud Computing Data Centers,” *Journal of Supercomputing*. (Forthcoming.)
29. N. Min-Allah, **S. U. Khan**, N. Ghani, J. Li, L. Wang, and P. Bouvry, “A Comparative Study of Rate Monotonic Schedulability Tests,” *Journal of Supercomputing*, vol. 59, no. 3, pp. 1419–1430, 2012.
28. N. Min-Allah, **S. U. Khan**, and W. Yongji, “Optimal Task Execution Times for Periodic Tasks using Nonlinear Constrained Optimization,” *Journal of Supercomputing*, vol. 59, no. 3, pp. 1120–1138, 2012.
27. P. Lindberg, J. Leingang, D. Lysaker, **S. U. Khan**, and J. Li, “Comparison and Analysis of Eight Scheduling Heuristics for the Optimization of Energy Consumption and Makespan in Large-Scale Distributed Systems,” *Journal of Supercomputing*, vol. 59, no. 1, pp. 323–360, 2012.
26. N. Min-Allah, H. Hussain, **S. U. Khan**, and A. Y. Zomaya, “Power Efficient Rate Monotonic Scheduling for Multi-core Systems,” *Journal of Parallel and Distributed Computing*, vol. 72, no. 1, pp. 48–57, 2012.
25. F. Gu, C. Xie, M. Peng, C. Cavdar, **S. U. Khan**, and N. Ghani, “Virtual Overlay Network Scheduling,” *IEEE Communications Letters*, vol. 15, no. 8, pp. 893–895, 2011.
24. N. Min-Allah and **S. U. Khan**, “A Hybrid Test for Faster Feasibility Analysis of Periodic Tasks,” *International Journal of Innovative Computing, Information and Control*, vol. 7, no. 10, pp. 5689–5698, 2011.
23. **S. U. Khan**, “Mosaic-Net: A Game Theoretical Method for Selection and Allocation of Replicas in Ad Hoc Networks,” *Journal of Supercomputing*, vol. 55, no. 3, pp. 321–366, 2011.
22. M. Ahmed, I. Ahmad, and **S. U. Khan**, “A Comparative Analysis of Parallel Computing Approaches for Genome Assembly,” *Interdisciplinary Sciences: Computational Life Sciences*, vol. 3, no. 1, pp. 57–63, 2011.
21. **S. U. Khan** and I. Ahmad, “Replicating Data Objects in Large Distributed Database Systems: An Axiomatic Game Theoretical Mechanism Design Approach,” *Distributed and Parallel Databases*, vol. 28, nos. 2–3, pp. 187–218, 2010.
20. M. A. Aziz, **S. U. Khan**, T. Loukopoulos, P. Bouvry, H. Li, and J. Li, “An Overview of Achieving Energy Efficiency in On-chip Networks,” *International Journal of Communication Networks and Distributed Systems*, vol. 5, no. 4, pp. 444–458, 2010.
19. H. Li, **S. U. Khan**, and H. Liu, “Broadcast Network Coverage with Multi-cell Cooperation,” *International Journal of Digital Multimedia Broadcasting*, vol. 2010, Article ID 218564, 7 p., 2010.
18. **S. U. Khan** and I. Ahmad, “A Cooperative Game Theoretical Technique for Joint Optimization of Energy Consumption and Response Time in Computational Grids,” *IEEE Transactions on Parallel and Distributed Systems*, vol. 20, no. 3, pp. 346–360, 2009.

17. **S. U. Khan** and I. Ahmad, "A Pure Nash Equilibrium based Game Theoretical Method for Data Replication across Multiple Servers," *IEEE Transactions on Knowledge and Data Engineering*, vol. 21, no. 4, pp. 537–553, 2009.
16. **S. U. Khan** and C. Ardil, "A Frugal Bidding Procedure for Replicating WWW Content," *International Journal of Information Technology*, vol. 5, no. 1, pp. 67–80, 2009.
15. **S. U. Khan** and C. Ardil, "A Weighted Sum Technique for the Joint Optimization of Performance and Power Consumption in Data Centers," *International Journal of Electrical, Computer, and Systems Engineering*, vol. 3, no. 1, pp. 35–40, 2009.
14. **S. U. Khan** and C. Ardil, "On the Optimal Number of Smart Dust Particles," *International Journal of Information Technology*, vol. 5, no. 2, pp. 93–96, 2009.
13. **S. U. Khan** and I. Ahmad, "Comparison and Analysis of Ten Static Heuristics-based Internet Data Replication Techniques," *Journal of Parallel and Distributed Computing*, vol. 68, no. 2, pp. 113–136, 2008.
12. **S. U. Khan** and I. Ahmad, "Discriminatory Algorithmic Mechanism Design Based WWW Content Replication," *Informatica*, vol. 31, no. 1, pp. 105–119, 2007.
11. **S. U. Khan** and I. Ahmad, "Replicating Data Objects in Large-scale Distributed Computing Systems using Extended Vickery Auction," *International Journal of Computational Intelligence*, vol. 3, no. 1, pp. 14–22, 2006.
10. **S. U. Khan**, "Heuristics-based PON Deployment," *IEEE Communications Letters*, vol. 9, no. 9, pp. 847–849, 2005.
9. **S. U. Khan** and I. Ahmad, "Combinatorial Pawn Power," *European Association of Theoretical Computer Science (EATCS) Bulletin*, vol. 85, pp. 151–164, 2005.
8. **S. U. Khan** and I. Ahmad, "Some Preliminary Results on Three Combinatorial Board Games," *European Association of Theoretical Computer Science (EATCS) Bulletin*, vol. 84, pp. 159–166, 2004.
7. **S. U. Khan**, "Integers, Game Trees and Some Unknowns," *European Association of Theoretical Computer Science (EATCS) Bulletin*, vol. 82, pp. 255–262, 2004.
6. **S. U. Khan**, "Towers for the K-peg Game," *Geombinatorics*, vol. 13, no. 3, pp. 148–152, 2004.
5. **S. U. Khan**, "Passive Optical Network Layout in Manhattan," *IEEE Photonics Technology Letters*, vol. 15, no. 10, pp. 1488–1490, 2003.
4. **S. U. Khan**, "Plays, Values, Analysis and the Complexity of Chinese Chess," *European Association of Theoretical Computer Science (EATCS) Bulletin*, vol. 81, pp. 163–172, 2003.
3. **S. U. Khan**, "Tchoukaillon," *Geombinatorics*, vol. 13, no. 2, pp. 106–108, 2003.
2. **S. U. Khan**, "Ayo," *Geombinatorics*, vol. 13, no. 1, pp. 47–49, 2003.
1. **S. U. Khan**, "Modular N-Queen," *Geombinatorics*, vol. 12, no. 4, pp. 217–221, 2003.

## Conference Papers

60. T. Tran, H. Li, L. Liu, and **S. U. Khan**, “Secure Network-Coded Wireless Multicast for Delay-Sensitive Data,” in *IEEE International Conference on Communications (ICC)*, sponsor: IEEE Communications Society, Ottawa, Canada, June 2012. (Forthcoming.)
59. F. Xu, N. Min-Allah, **S. U. Khan**, and N. Ghani, “Diverse Routing in Multi-Domain Optical Networks With Correlated and Probabilistic Multi-Failures,” in *IEEE International Conference on Communications (ICC)*, sponsor: IEEE Communications Society, Ottawa, Canada, June 2012. (Forthcoming.)
58. L. Wang, J. Tao, H. Marten, A. Streit, **S. U. Khan**, J. Kolodziej, and D. Chen, “MapReduce across Distributed Clusters for Data-intensive Applications,” in *26th International Parallel and Distributed Processing Symposium (IPDPS)*, sponsor: IEEE Computer Society, Shanghai, China, May 2012. (Forthcoming.)
57. D. Chen, L. Wang, D. Cui, D. Lu, X. Li, **S. U. Khan**, and J. Kolodziej, “A Massively Parallel Approach for Nonlinear Interdependency Analysis of Signals with GPGPU,” in *26th International Parallel and Distributed Processing Symposium (IPDPS)*, sponsor: IEEE Computer Society, Shanghai, China, May 2012. (Forthcoming.)
56. F. Xu, K. Liang, K. Shaban, M. Peng, **S. U. Khan**, and N. Ghani, “Diverse Lightpath Protection against Correlated and Probabilistic Failures in Multi-Domain Optical Networks,” in *IEEE Optical Fiber Communication Conference and Exposition and the National Fiber Optic Engineers Conference (OFC/NFOEC)*, sponsor: IEEE, Los Angeles, CA, USA, March 2012. (Forthcoming.)
55. M. R. Islam, S. Krishnan, J. Gong, and **S. U. Khan**, “Performance Study on Solar Assisted Heat Pump Water Heater using CO<sub>2</sub> in a Transcritical Cycle,” in *International Conference on Renewable Energies and Power Quality (ICREPQ)*, sponsor: European Association for the Development of Renewable Energies, Environment and Power Quality, Santiago de Compostela, Spain, March 2012. (Forthcoming.)
54. R. Shukla, S. Krishnan, and **S. U. Khan**, “Performance Improvement of a Heat Pump Assisted Solar Water Heating System,” in *International Conference on Renewable Energies and Power Quality (ICREPQ)*, sponsor: European Association for the Development of Renewable Energies, Environment and Power Quality, Santiago de Compostela, Spain, March 2012. (Forthcoming.)
53. C. Cai, L. Wang, **S. U. Khan**, and J. Tao, “Energy-aware High Performance Computing: A Taxonomy Study,” in *17th IEEE International Conference on Parallel and Distributed Systems (ICPADS)*, sponsor: IEEE Computer Society, Tainan, Taiwan, December 2011, pp. 953–958.
52. J. Kolodziej, **S. U. Khan**, L. Wang, N. Min-Allah, S. A. Madani, N. Ghani, and H. Li, “An Application of Markov Jump Process Model for Activity-Based Indoor Mobility Prediction in Wireless Networks,” in *9th IEEE International Conference on Frontiers of Information Technology (FIT)*, sponsor: IEEE Computer Society, Islamabad, Pakistan, December 2011, pp. 51–56.

51. J. E. Pecero, P. Bouvry, H. J. F. Huacuja, and **S. U. Khan**, “A Multi-objective GRASP Algorithm for Joint Optimization of Energy Consumption and Schedule Length of Precedence-Constrained Applications,” in *9th IEEE International Conference on Dependable, Autonomic and Secure Computing (DASC)*, sponsor: IEEE Computer Society, Sydney, Australia, December 2011, pp. 510–517.
50. J. Kolodziej, **S. U. Khan**, and F. Khafa, “Genetic Algorithms for Energy-aware Scheduling in Computational Grids,” in *6th IEEE International Conference on P2P, Parallel, Grid, Cloud, and Internet Computing (3PGCIC)*, sponsor: IEEE Computer Society, Barcelona, Spain, October 2011, pp. 17–24.
49. C. O. Diaz, M. Guzek, J. E. Pecero, P. Bouvry, and **S. U. Khan**, “Scalable and Energy-efficient Scheduling Techniques for Large-scale Systems,” in *11th IEEE International Conference on Computer and Information Technology (CIT)*, sponsor: IEEE Computer Society, Pafos, Cyprus, September 2011 pp. 641–657.
48. F. Pinel, J. E. Pecero, **S. U. Khan**, and P. Bouvry, “A Survey on Task Performance Prediction in Multi-core Based Systems,” in *11th IEEE International Conference on Computer and Information Technology (CIT)*, sponsor: IEEE Computer Society, Pafos, Cyprus, September 2011, pp. 615–620.
47. F. Pinel, J. E. Pecero, **S. U. Khan**, and P. Bouvry, “Energy-efficient Scheduling on Milliclusters with Performance Constraints,” in *ACM/IEEE International Conference on Green Computing and Communications (GreenCom)*, sponsors: ACM and IEEE Computer Society, Chengdu, Sichuan, China, August 2011 pp. 44–49.
46. C. O. Diaz, M. Guzek, J. E. Pecero, G. Danoy, P. Bouvry, and **S. U. Khan**, “Energy-aware Fast Scheduling Heuristics in Heterogeneous Computing Systems,” in *ACM/IEEE/IFIP International Conference on High Performance Computing and Simulation (HPCS)*, sponsor: IEEE Computer Society, Istanbul, Turkey, July 2011, pp. 478–484.
45. F. Pinel, J. E. Pecero, P. Bouvry, and **S. U. Khan**, “A Two-Phase Heuristic for the Scheduling of Independent Tasks on Computational Grids,” in *ACM/IEEE/IFIP International Conference on High Performance Computing and Simulation (HPCS)*, sponsor: IEEE Computer Society, Istanbul, Turkey, July 2011, pp. 471–477.
44. J. Li, Q. Li, **S. U. Khan**, and N. Ghani, “Community-Based Cloud for Emergency Management,” in *6th IEEE International Conference on System of Systems Engineering (SoSE)*, sponsor: IEEE Computer Society, Albuquerque, NM, USA, June 2011, pp. 55–60.
43. F. Pinel, J. E. Pecero, **S. U. Khan**, and P. Bouvry, “Utilizing GPUs to Solve Large Instances of the Tasks Mapping Problem,” in *International Research Workshop on Advanced High Performance Computing Systems*, sponsor: IEEE, Cetraro, Italy, June 2011.
42. F. Gu, C. Xie, M. Peng, C. Cavdar, **S. U. Khan**, and N. Ghani, “Advance Reservation for Virtual Overlay Network Services,” in *IEEE International Conference on Transparent Optical Networks (ICTON)*, sponsor: IEEE, Stockholm, Sweden, June 2011.

41. M. Esmaeili, M. Peng, **S. U. Khan**, J. Finochietto, Y. Jin, and N. Ghani, "Multi-Domain DWDM Network Provisioning for Correlated Failures," in *IEEE Optical Fiber Communication Conference and Exposition and the National Fiber Optic Engineers Conference (OFC/NFOEC)*, sponsor: IEEE, Los Angeles, CA, USA, March 2011.
40. M. Ahmed, I. Ahmad, and **S. U. Khan**, "A Theoretical Analysis of Scalability of the Parallel Genome Assembly Algorithms," in *IEEE/EMB/ESEM/BMES International Conference on Bioinformatics Models, Methods and Algorithms (BIOINFORMATICS)*, sponsors: IEEE Engineering in Medicine and Biology Society (EMB), European Society for Engineering and Medicine (ESEM), and Biomedical Engineering Society (BMES), Rome, Italy, January 2011, pp. 234–237.
39. D. Kliazovich, P. Bouvry, and **S. U. Khan**, "DENS: Data Center Energy-Efficient Network-Aware Scheduling," in *ACM/IEEE International Conference on Green Computing and Communications (GreenCom)*, sponsors: ACM and IEEE Computer Society, Hangzhou, China, December 2010, pp. 69–75. (**Received Best Paper Award.**)
38. M. Esmaeili, K. Kazi, **S. U. Khan**, A. Rayes, and N. Ghani, "Provisioning for Probabilistic Failures in Multi-Domain DWDM Networks," in *7th IEEE International Symposium on High Capacity Optical Networks and Enabling Technologies (HONET)*, Cairo, Egypt, December 2010.
37. D. Kliazovich, P. Bouvry, Y. Audzevich, and **S. U. Khan**, "GreenCloud: A Packet-level Simulator of Energy-aware Cloud Computing Data Centers," in *53rd IEEE Global Communications Conference (Globecom)*, sponsor: IEEE Communications Society, Miami, FL, USA, December 2010.
36. S. Liu, K. Bilal, **S. U. Khan**, H. Li, N. Min-Allah, J. Li, N. Ghani, P. Bouvry, and S. Madani, "Heuristics-based Nominal Channels Allocation in Cellular Networks," in *8th ACM/IEEE International Conference on Frontiers of Information Technology (FIT)*, sponsors: ACM and IEEE Technical Area of Green Computing, Islamabad, Pakistan, December 2010.
35. A. Vosoughi, K. Bilal, **S. U. Khan**, N. Min-Allah, J. Li, N. Ghani, P. Bouvry, and S. Madani, "A Multidimensional Robust Greedy Algorithm for Resource Path Finding in Large-Scale Distributed Networks," in *8th ACM/IEEE International Conference on Frontiers of Information Technology (FIT)*, sponsors: ACM and IEEE Technical Area of Green Computing, Islamabad, Pakistan, December 2010.
34. F. Xu, M. Peng, M. Esmaeili, M. Rahnamay-Naeini, **S. U. Khan**, N. Ghani, and M. Hayat, "Post-Fault Restoration in Multi-Domain Networks with Multiple Failures," in *IEEE Military Communications Conference (MILCOM)*, sponsor: IEEE Communications Society, San Jose, CA, USA, November 2010, pp. 1016–1021.
33. F. Pinel, J. E. Pecero, P. Bouvry, and **S. U. Khan**, "Memory-aware Green Scheduling on Multi-core Processors," in *39th IEEE International Conference on Parallel Processing (ICPP)*, sponsors: IEEE Computer Society and International Association of Computing and Communication (IACC), San Diego, CA, USA, September 2010, pp. 485–488.

32. M. Guzek, J. E. Pecero, B. Dorrosoro, P. Bouvry, and **S. U. Khan**, “A Cellular Genetic Algorithm for Scheduling Applications and Energy-aware Communication Optimization,” in *ACM/IEEE/IFIP International Conference on High Performance Computing and Simulation (HPCS)*, sponsor: IEEE Computer Society, Caen, France, June 2010, pp. 241–248.
31. J. Li and **S. U. Khan**, “MobiSN: Semantics-based Mobile Ad Hoc Social Network Framework,” in *52nd IEEE Global Communications Conference (Globecom)*, sponsor: IEEE Communications Society, Honolulu, HI, USA, December 2009.
30. **S. U. Khan**, “A Goal Programming Approach for the Joint Optimization of Energy Consumption and Response Time in Computational Grids,” in *28th IEEE International Performance Computing and Communications Conference (IPCCC)*, sponsor: IEEE Computer Society, Phoenix, AZ, USA, December 2009, pp. 410–417.
29. **S. U. Khan**, “A Self-adaptive Weighted Sum Technique for the Joint Optimization of Performance and Power Consumption in Data Centers,” in *22nd International Conference on Parallel and Distributed Computing and Communication Systems (PDCCS)*, sponsor: International Society for Computers and Their Applications, Louisville, KY, USA, September 2009, pp. 13–18.
28. **S. U. Khan** and C. Ardil, “Energy Efficient Resource Allocation in Distributed Computing Systems,” in *International Conference on Distributed, High-Performance and Grid Computing (DHPGC)*, sponsor: World Academy of Science, Engineering and Technology, Singapore, August 2009 pp. 667–673.
27. **S. U. Khan** and C. Ardil, “On the Joint Optimization of Performance and Power Consumption in Data Centers,” in *International Conference on Distributed, High-Performance and Grid Computing (DHPGC)*, sponsor: World Academy of Science, Engineering and Technology, Singapore, August 2009, pp. 660–666.
26. **S. U. Khan** and C. Ardil, “A Competitive Replica Placement Methodology for Ad Hoc Networks,” in *International Conference on Parallel and Distributed Computing Systems (ICPDCS)*, sponsor: World Academy of Science, Engineering and Technology, Oslo, Norway, July 2009, pp. 128–133.
25. **S. U. Khan** and C. Ardil, “A Fast Replica Placement Methodology for Large-scale Distributed Computing Systems,” in *International Conference on Parallel and Distributed Computing Systems (ICPDCS)*, sponsor: World Academy of Science, Engineering and Technology, Oslo, Norway, July 2009, pp. 121–127.
24. **S. U. Khan**, “A Frugal Auction Technique for Data Replication in Large Distributed Computing Systems,” in *International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA)*, cosponsors: World Academy of Science and Computer Science Research, Education, and Applications Press (CSREA), Las Vegas, NV, USA, July 2009, pp. 17–23.
23. **S. U. Khan**, “A Game Theoretical Resource Allocation Technique for Large Distributed Computing Systems,” in *International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA)*, cosponsors: World Academy of Science and Computer

- Science Research, Education, and Applications Press (CSREA), Las Vegas, NV, USA, July 2009, pp. 48–54.
22. **S. U. Khan**, “A Multi-Objective Programming Approach for Resource Allocation in Data Centers,” in *International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA)*, cosponsors: World Academy of Science and Computer Science Research, Education, and Applications Press (CSREA), Las Vegas, NV, USA, July 2009, pp. 152–158.
  21. **S. U. Khan**, “On a Game Theoretical Methodology for Data Replication in Ad Hoc Networks,” in *International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA)*, cosponsors: World Academy of Science and Computer Science Research, Education, and Applications Press (CSREA), Las Vegas, NV, USA, July 2009, pp. 232–238.
  20. **S. U. Khan**, A. A. Maciejewski, and H. J. Siegel, “Robust CDN Replica Placement Techniques,” in *23rd International Parallel and Distributed Processing Symposium (IPDPS)*, sponsor: IEEE Computer Society, Rome, Italy, May 2009.
  19. **S. U. Khan**, A. A. Maciejewski, H. J. Siegel, and I. Ahmad, “A Game Theoretical Data Replication Technique for Mobile Ad hoc Networks,” in *22nd International Parallel and Distributed Processing Symposium (IPDPS)*, sponsor: IEEE Computer Society, Miami, FL, USA, April 2008.
  18. I. Ahmad, **S. U. Khan**, and S. Ranka, “Using Game Theory for Scheduling Tasks on Multi-Core Processors for Simultaneous Optimization of Performance and Energy,” in *22nd IEEE International Parallel and Distributed Processing Symposium (IPDPS)*, sponsor: IEEE Computer Society, Miami, FL, USA, April 2008.
  17. **S. U. Khan** and I. Ahmad, “A Cooperative Game Theoretical Replica Placement Technique,” in *13th International Conference on Parallel and Distributed Systems (ICPADS)*, sponsor: IEEE Computer Society, Hsinchu, Taiwan, December 2007.
  16. **S. U. Khan**, “Approximate Optimal Sensor Placements in Grid Sensor Fields,” in *65th Semi-annual IEEE Vehicular Technology Conference (VTC)*, sponsor: IEEE Vehicular Technology Society, Dublin, Ireland, April 2007, pp. 248–251.
  15. **S. U. Khan** and M. Ahmed, “A Bottleneck Eliminating Approximate Algorithm for PON Layout,” in *4th IEEE International Conference on Information Technology : New Generations (ITNG)*, sponsor: IEEE Computer Society, Las Vegas, NV, USA, April 2007, pp 1089–1094.
  14. **S. U. Khan** and I. Ahmad, “A Semi-Distributed Axiomatic Game Theoretical Mechanism for Replicating Data Objects in Large Distributed Computing Systems,” in *21st IEEE International Parallel and Distributed Processing Symposium (IPDPS)*, sponsor: IEEE Computer Society, Long Beach, CA, USA, March 2007.
  13. B. Khargharia, S. Hariri, F. Szidarovszky, M. Hourri, H. El-Rewini, **S. U. Khan**, I. Ahmad, and M. S. Yousif, “Autonomic Power and Performance Management for Large-Scale Data Centers,” in *21st IEEE International Parallel and Distributed Processing Symposium (IPDPS)*, sponsor: IEEE Computer Society, Long Beach, CA, USA, March 2007.

12. **S. U. Khan** and I. Ahmad, “A Pure Nash Equilibrium Guaranteeing Game Theoretical Replica Allocation Method for Reducing Web Access Time,” in *12th IEEE International Conference on Parallel and Distributed Systems (ICPADS)*, sponsor: IEEE Computer Society, Minneapolis, MN, USA, July 2006, pp. 169–176.
11. **S. U. Khan**, “Data Replication in Large Distributed Computing Systems using Supergames,” in *The 2006 International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA)*, cosponsors: World Academy of Science and Computer Science Research, Education, and Applications Press (CSREA), Las Vegas, NV, USA, June 2006, pp. 38–44.
10. **S. U. Khan** and I. Ahmad, “Non-cooperative, Semi-cooperative, and Cooperative Games-based Grid Resource Allocation,” in *20th IEEE International Parallel and Distributed Processing Symposium (IPDPS)*, sponsor: IEEE Computer Society, Rhodes Island, Greece, April 2006.
9. **S. U. Khan** and I. Ahmad, “RAMM: A Game Theoretical Replica Allocation and Management Mechanism,” in *8th International Symposium on Parallel Architectures, Algorithms, and Networks (I-SPAN)*, sponsor: IEEE Computer Society, Las Vegas, NV, USA, December 2005, pp. 160–165.
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7. **S. U. Khan** and I. Ahmad, “A Powerful Direct Mechanism for Optimal WWW Content Replication,” in *19th IEEE International Parallel and Distributed Processing Symposium (IPDPS)*, sponsor: IEEE Computer Society, Denver, CO, USA, April 2005.
6. **S. U. Khan** and I. Ahmad, “Heuristics-based Replication Schemas for Fast Information Retrieval over the Internet,” in *17th International Conference on Parallel and Distributed Computing Systems (PDCS)*, sponsor: International Society for Computers and Their Applications, San Francisco, CA, USA, September 2004, pp. 278–283.
5. **S. U. Khan** and M. S. Hamid, “On the Optimal Number of Smart Dust Particles,” in *7th IEEE International Multitopic Conference (INMIC)*, sponsor: IEEE Pakistan, Islamabad, Pakistan, December 2003, pp. 472–475.
4. **S. U. Khan**, “Optimal Troop Deployment in Urban Warfare using Geometry and Retro-reflective ID Tags,” in *13th Precision Strike Technology Symposium*, sponsor: Office of Naval Research, Laurel, MD, USA, October 2003.
3. **S. U. Khan**, “Why Should We Pay More for Network Layout Designers?” in *48th International Symposium on Optical Science and Technology*, sponsor: Society of Photo-Optical Instrumentation Engineers (SPIE), San Diego, CA, USA, August 2003, pp. 108–116.

2. M. Ghandehari and **S. U. Khan**, “Examples from Elements of Theory of Computation,” in *Annual Conference of the American Society for Engineering Education Gulf Southwest Section*, sponsor: American Society for Engineering Education, Arlington, TX, USA, March 2003.
1. **S. U. Khan**, “How Much More Rain?” in *10th International Symposium on Smart Structures and Materials*, sponsor: Society of Photo-Optical Instrumentation Engineers (SPIE), San Diego, CA, USA, March 2003, pp. 679–685.

## Book Chapters

12. J. Kolodziej and **S. U. Khan**, “A Taxonomy of Evolutionary Inspired Solutions for Energy Management in Green Computing: Problems and Resolution Methods,” in *Evolutionary based Solutions for Green Computing*, **S. U. Khan**, J. Kolodziej, J. Li, and A. Y. Zomaya, Eds., Springer-Verlag, New York, USA. (Forthcoming.)
11. G. L. Valentini, **S. U. Khan**, P. Bouvry, J. Kolodziej, and N. Ghani, “Adaptive Energy-efficient Cloud Scheduling,” in *Evolutionary based Solutions for Green Computing*, **S. U. Khan**, J. Kolodziej, J. Li, and A. Y. Zomaya, Eds., Springer-Verlag, New York, USA. (Forthcoming.)
10. A.-A. Tantar, P. Bouvry, and **S. U. Khan**, “Energy-efficient Dynamic Allocation of Virtual Machines,” in *Evolutionary based Solutions for Green Computing*, **S. U. Khan**, J. Kolodziej, J. Li, and A. Y. Zomaya, Eds., Springer-Verlag, New York, USA. (Forthcoming.)
9. H. Castro, G. Sotelo, C. O. Diaz, J. E. Pecero, P. Bouvry, and **S. U. Khan**, “GFOG: Green and Flexible Opportunistic Grids,” in *Scalable Computing and Communications: Theory and Practice*, **S. U. Khan**, L. Wang, and A. Y. Zomaya, Eds., John Wiley & Sons, Hoboken, NJ, USA. (Forthcoming.)
8. N. Min-Allah, **S. U. Khan**, W. Youngji, J. Kolodziej, and N. Ghani, “Determining the Optimal Task Execution Times for Periodic Tasks Using Nonlinear Constrained Optimization,” in *Scalable Computing and Communications: Theory and Practice*, **S. U. Khan**, L. Wang, and A. Y. Zomaya, Eds., John Wiley & Sons, Hoboken, NJ, USA. (Forthcoming.)
7. J. Li, **S. U. Khan**, and N. Ghani, “Semantics-based Resource Discovery in Large-scale Grids,” in *Large Scale Network-centric Computing Systems*, A. Y. Zomaya and H. Sarbazi-Azad, Eds., John Wiley & Sons, Hoboken, NJ, USA. (Forthcoming.)
6. G. L. Valentini, **S. U. Khan**, and P. Bouvry, “Energy-efficient Resource Utilization in Cloud Computing,” in *Large Scale Network-centric Computing Systems*, A. Y. Zomaya and H. Sarbazi-Azad, Eds., John Wiley & Sons, Hoboken, NJ, USA. (Forthcoming.)
5. P. Lindberg, J. Leingang, D. Lysaker, K. Bilal, **S. U. Khan**, P. Bouvry, N. Ghani, N. Min-Allah, and J. Li, “Comparison and Analysis of Greedy Energy-Efficient Scheduling Algorithms for Computational Grids,” in *Energy Aware Distributed Computing Systems*, A. Y. Zomaya and Y.-C. Lee, Eds., John Wiley & Sons, Hoboken, NJ, USA. (Forthcoming.)

4. A.-A. Tantar, G. Danoy, P. Bouvry, and **S. U. Khan**, “Energy-Efficient Computing using Agent-Based Multi-Objective Dynamic Optimization,” in *Green IT: Technologies and Applications*, J. H. Kim and M. J. Lee, Eds., Springer, New York, NY, USA, 2011, ISBN 978-3-642-22178-1, Chapter 14.
3. N. Tziritas, **S. U. Khan**, and T. Loukopoulos, “On Reconfiguring Embedded Application Placement on Smart Sensing and Actuating Environments,” in *Intelligent Decision Systems in Large-Scale Distributed Environments*, P. Bouvry, H. Gonzalez-Velez, and J. Kolodziej, Eds., Springer, New York, NY, USA, 2011, ISBN 978-3-642-21270-3, Chapter 11.
2. J. Li, **S. U. Khan**, Q. Li, N. Ghani, N. Min-Allah, P. Bouvry, and W. Zhang, “Efficient Data Sharing over Large-Scale Distributed Communities,” in *Intelligent Decision Systems in Large-Scale Distributed Environments*, P. Bouvry, H. Gonzalez-Velez, and J. Kolodziej, Eds., Springer, New York, NY, USA, 2011, ISBN 978-3-642-21270-3, Chapter 7.
1. **S. U. Khan** and I. Ahmad, “Game Theoretical Solutions for Data Replication in Distributed Computing Systems,” in *Handbook of Parallel Computing: Models, Algorithms, and Applications*, S. Rajasekaran and J. Reif, Eds., Chapman & Hall/CRC Press, Boca Raton, FL, USA, 2007, ISBN 1-584-88623-4, Chapter 45.

### Journal Editorials

6. **S. U. Khan**, P. Bouvry, and T. Engel, “Energy-efficient High-Performance Parallel and Distributed Computing,” *Journal of Supercomputing*. (Forthcoming.)
5. G. Danoy, P. Bouvry, **S. U. Khan**, B. Dorransoro, and S. Varrette, “Optimization Issues in Energy Efficient Distributed System,” *International Journal of Communication Networks and Distributed Systems*. (Forthcoming.)
4. **S. U. Khan**, S. Zeadally, P. Bouvry, and N. Chilamkurti, “Green Networks,” *Journal of Supercomputing*. (Forthcoming.)
3. **S. U. Khan**, L. Wang, L. T. Yang, and F. Xia, “Green Computing and Communications,” *Journal of Supercomputing*. (Forthcoming.)
2. **S. U. Khan**, T. Loukopoulos, and H. Li, “Advances in Wireless, Mobile and P2P based Internet Protocols, Applications, and Architectures,” *International Journal of Internet Protocol Technology*, vol. 6, nos. 1-2, pp. 1-2, 2011.
1. **S. U. Khan** and P. Bouvry, “Energy-Efficient Communications for High-Performance Distributed Systems,” *International Journal of Communication Networks and Distributed Systems*, vol. 6, no. 1, pp. 1-2, 2011.

### Edited Proceedings

2. Proceedings of the 9th IEEE International Conference on Frontiers of Information Technology (FIT), sponsor: IEEE Computer Society, Islamabad, Pakistan, December 2011, S. Hariri, L. T. Yang, H. Rashid, A. Y. Zomaya, M. Parashar, **S. U. Khan**, S. A. Madani, and S. A. Khan, Eds., ISBN-13: 978-0-7695-4625-4.

1. Proceedings of the 6th IEEE International Conference on P2P, Parallel, Grid, Cloud, and Internet Computing (3PGCIC), sponsor: IEEE Computer Society, Barcelona, Spain, October 2011, F. Xhafa, L. Barolli, J. Kolodziej, and **S. U. Khan**, Eds., ISBN-13: 978-0-7695-4531-8.

### **Technical Reports**

3. J. Li and **S. U. Khan**, “On How to Construct a Social Network from a Mobile Ad Hoc Network,” North Dakota State University, Tech. Rep., NDSU-CS-TR-09-009, 2009.
2. **S. U. Khan** and I. Ahmad, “Internet Content Replication: A Solution from Game Theory,” University of Texas at Arlington, Tech. Rep. CSE-2004-04, 2004.
1. R. Fleischer and **S. U. Khan**, “Xiangqi and Combinatorial Game Theory,” Hong Kong University of Science and Technology, Tech. Rep. HKUST-TCS-2002-01, 2002.

### **Research Advisees**

A total of 11 (Researchers: 2, Postdocs: 1, PhD: 7, MS: 1) current advisees.  
Categorized by education level.

#### **Short-term Researchers**

Munib Ahmed.

Dzmitry Kliazovich (co-advised with P. Bouvry).

#### **Postdoctoral Researchers**

Nikolaos Tziritas (co-advised with Cheng-Zhong Xu).

#### **Doctoral Students**

Kashif Bilal.

César O. Diaz (co-advised with P. Bouvry).

Abdul Hameed.

Rizwana Irfan.

Osman Khalid.

Saif Ur Rehman Malik.

Frederic Pinel (co-advised with P. Bouvry).

#### **Masters Students**

Walter I. Lassonde.

## **Alumni**

A total of 10 (Fulbright Scholars: 1, MS: 1, BS: 8) students have graduated.  
Listed in alphabetical order.

Joshua Adamek (with a BS).  
Brady A. Brodsho (with a BS).  
Nathan R. Jensen (with a BS).  
Garrett Kropp (with a BS).  
Walter I. Lassonde (with a BS).  
James J. Leingang (with a BS).  
Peder Lindberg (with a BS).  
Daniel Lysaker (with a BS).  
Oluwasajibomi Saula (with a MS).  
Giorgio L. Valentini (Fulbright Scholar).

## **Research Student Thesis Committee Member**

A total of 4 students.  
Listed in alphabetical order.

Qingrui Li, MS, advised by J. Li (CS, NDSU).  
Akshay Mudgal, MS, advised by J. Li (CS, NDSU).  
Pallavi Roy, MS, advised by J. Li (CS, NDSU).  
Hamed Sajjadikia, PhD, advised by C. Ababei (ECE, NDSU).

## **Courses Taught**

### **North Dakota State University**

Computer Architecture (graduate).  
Introduction to Computing (undergraduate).  
Introduction to Electrical and Computer Engineering (undergraduate).  
Systems (graduate).  
System Programming (graduate).

### **University of Texas, Arlington**

Fundamentals of Software Engineering (undergraduate).  
Theoretical Concepts in Computer Science (undergraduate).

## **Professional Activities**

### **Associate Editor**

Cluster Computing, Springer.

International Journal of Communication Systems, Wiley.

Security and Communication Networks, Wiley.

### **Editorial Board Member**

Informatica.

Information Systems.

Interdisciplinary Sciences.

International Journal of Communication Networks and Distributed Systems.

International Journal of Distributed Systems and Technologies.

International Journal of Green Computing.

International Journal of Grid and Utility Computing.

Journal of Information Technology Research.

Multiagent and Grid Systems.

### **Listed as an Expert on Professional Committees and Funding Programs**

Chair of the Steering Committee of the IEEE Technical Area of Green Computing.

Member of the IEEE Technical Committee on Self-Organized Distributed and Pervasive Systems.

Domain Expert of the Agence Nationale de la Recherche (ANR), France.

Domain Expert of the Research Council (TRC), Sultanate of Oman.

Domain Expert of the Netherlands Science Foundations (NWO and STW), Netherlands.

Member of the panel on “green computing” as part of ACM/IEEE/IFIP International Conference on High Performance Computing and Simulation (HPCS), 2010.

### **Conference Organizational Committee Memberships**

General Co-Chair of the Scalable Solutions for GreenIT (SCALSOL) as part of the IEEE International Conference on Scalable Computing and Communications (SCALCOM), 2011.

General Co-Chair of the Workshop on Scalable Optimization in Intelligent Networking (SCOPIN) as part of the IEEE International Conference on Network-Based Information Systems (NBIS), 2011.

General Co-Chair of the Workshop on Optimization Issues in Energy Efficient Distributed Systems (OPTIM) as part of the ACM/IEEE/IFIP International Conference on High Performance Computing and Simulation (HPCS), 2010.

General Co-Chair of the Workshop on GreenIT Evolutionary Computation as part of the ACM Genetic and Evolutionary Computation Conference (GECCO), 2011, 2012.

Co-Chair of the Track on Metaheuristics and Green Computing as part of the International Conference on Metaheuristics and Naturally Inspired Computing (META), 2010, 2011, 2012.

Co-Chair of the Track on High Performance Green Computing as part of the International Conference on Parallel, Distributed, Grid and Cloud Computing for Engineering (PARENG), 2011.

Member of the Steering Committee of the IEEE/ACM International Conference on Green Computing and Communications (GreenCom), 2011, 2012.

Member of the Organizing Committee of the International Conference on Computational and Systems Biology (ICCSB), 2010.

Member of the Advisory Board of the European Conference on Modeling and Simulation (ECMS), 2011, 2012.

Technical Program Committee Co-Chair of the ACM/IEEE International Conference on Frontiers of Information Technology (FIT), 2011, 2012.

Technical Program Committee Co-Chair of the IEEE International Conference on P2P, Parallel, Grid, Cloud and Internet Computing (3PGCIC), 2011.

Technical Program Committee Co-Chair of the IEEE International Conference on Smart Grid and Home (SGH), 2011.

Technical Program Committee Vice Chair of the IEEE/ACM International Conference on Green Computing and Communications (GreenCom), 2010.

Technical Program Committee Vice Chair of the IEEE International Conference on Cloud Computing Technology and Science (CloudCom), 2012.

Track Chair of the IEEE International Conference on Network-Based Information Systems (NBIS), 2011.

Workshop Co-Chair of the IEEE International Conference on Scalable Computing and Communications (SCALCOM), 2011.

Industrial Co-Chair of the ACM/IEEE International Conference on Frontiers of Information Technology (FIT), 2010.

### **Conference Program Committee Memberships**

ACS/IEEE International Conference on Computer Systems and Applications (AICCSA), 2010.

IEEE Consumer Communication and Networking Conference (CCNC), 2009, 2010, 2011, 2012.

IEEE Global Communications Conference (GLOBECOM), 2009, 2010, 2011.

IEEE International Conference on Advances in Cloud Computing (ACC), 2012.

IEEE International Conference on Cloud and Service Computing (CSC), 2011.

IEEE International Conference on Communications (ICC), 2011, 2012.

IEEE International Conference on Computer Communications (INFOCOM), 2012.

IEEE International Conference on Contemporary Computing (IC3), 2012.

IEEE International Conference on Future Information Technology (FutureTech), 2011.

IEEE/ACM International Conference on High Performance Computing (HiPC), 2011.

IEEE International Conference on Wireless Communications, Networking and Information Security (WCNIS), 2010.

IEEE International Parallel and Distributed Processing Symposium (IPDPS), 2011, 2012.

IEEE/ACM International Symposium on Cluster, Cloud, and Grid Computing (CCGrid), 2012.

IEEE International Symposium on Computer Architecture and High Performance Computing (SBAC-PAD), 2012.

IEEE International Symposium on Multimedia (ISM), 2007.

International Symposium on Programming and Systems (ISPS), 2011.

IEEE International Workshop on Data Center Performance (DCPerf), 2012.

IEEE International Workshop on Digital Computing Infrastructure and Applications (DCIA), 2010, 2011, 2012.

IEEE International Workshop on Internet of Things and Internet of Services: Cyber-Physical Systems (IoT-IoS), 2010.

IEEE International Workshop on IT Converged Services and Applications (ITCSA), 2011.

IEEE International Workshop on Security in e-Science and e-Research (ISSR), 2011, 2012.

IEEE International Workshop on Wireless and Internet Services (WiSe), 2010.

IEEE International Workshop Towards Smart Communications and Network technologies applied on Autonomous Systems (SaCoNAS), 2010.

IFIP International Conference on New Technologies, Mobility and Security (NTMS), 2011.

International Conference on Communication Technology (ICCT), 2006.

International Conference on Complex Distributed Systems (CODS), 2010, 2011.

International Conference on Computational Intelligence (ICCI), 2005.

International Conference on ICT as Key Technology for the Fight against Global Warming (ICT-GLOW), 2011, 2012.

International Conference on Internet Engineering (ICIE), 2006.

International Conference on Multimedia and Ubiquitous Engineering (MUE), 2008, 2009.

International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA), 2006, 2007, 2008, 2009, 2010.

International Conference on Parallel and Distributed Systems (PDS), 2005.

International Symposium on Security and Multimodality in Pervasive Environments (SMPE), 2010.

International Symposium on u- and e- Service, Science and Technology (UNESST), 2008.

Workshop on Collaboration in Virtual Environments (CoVE), 2012.

### **Refereeing**

ACM Journal on Emerging Technologies in Computing Systems.

Computers and Mathematics.

IEEE Computer.

IEEE Communications Letters.

IEEE Distributed Systems Online.

IEEE Transactions on Circuits and Systems for Video Technology.

IEEE Transactions on Parallel and Distributed Systems.

IEEE Transactions on Pattern Analysis and Machine Intelligence.

International Journal of Computers and their Applications.

International Journal of Parallel Programming.

Journal of Network and Computer Applications.

Journal of Parallel and Distributed Computing.

Journal of Supercomputing.

Optical Engineering.

Telematics and Informatics.

Wireless Communications and Mobile Computing.

IEEE Innovations in Information Technology Conference (IIT), 2006.

IEEE International Conference on Broadband Communications (BROADNETS), 2006.

IEEE International Parallel and Distributed Processing Symposium (IPDPS), 2006.

IEEE Vehicular Technology Conference (VTC), 2009.

International Conference on Electric Power Energy Conversion Systems (EPECS), 2009.

International Conference on Parallel Processing (ICPP), 2009.

## Invited Talks

“iPakistan: invest in Pakistan,” Office of International Programs, North Dakota State University, Fargo, ND, USA, November 2011.

“Energy, power, and thermal -aware data center computations and communications,” Computer Science and Communications Research Unit, University of Luxembourg, Luxembourg, June 2010.

“Energy-efficient Computing,” Department of Civil Engineering, North Dakota State University, Fargo, ND, USA, March 2009.

“Optimizing the Energy Consumption and Performance of Computational Grids,” Department of Electrical and Computer Engineering, North Dakota State University, Fargo, ND, USA, April 2008.

“On the Joint Energy and Performance Optimization of Large-scale Systems,” Department of Computer Science, Utah State University, Logan, UT, USA, March 2008.

“Optimizing the Energy Consumption and Performance of Computational Grids,” Department of Computer Science and Engineering, University of Nevada, Reno, NV, USA, February 2008.

“Autonomous Data Replication in Large-scale Distributed Systems,” Department of Electrical and Computer Engineering, Colorado State University, September 2008.

“Multiobjective Optimization for Large-scale Distributed Systems,” Department of Electrical and Computer Engineering, Wichita State University, Wichita, KN, USA, May 2007.

“Resource Allocation in Large-scale Distributed Systems,” Department of Computer Science, Indiana University, South Bend, IN, USA, May 2007.

## Publicity

“Cloud computing looks to be future of disaster management,” *The Spectrum*, vol. 115, no. 32, p. 7, 2012. (<http://tinyurl.com/7yvpmnv>)

“Researchers develop disaster management system,” *It's Happening at State*, vol. 4, no. 1, p. 7, 2012. (<http://www.ndsu.edu/ahas/2012/ahas.01132012.pdf>)

“New cloud computing based disaster management system,” *Homeland Security NewsWire*, January 6, 2012. (<http://tinyurl.com/85ytby1>)

“NDSU, COMSATS to develop solar water heating system,” *US AgNet*, November 8, 2011. (<http://tinyurl.com/894vhep>)

“Researchers to design hybrid solar water heating system for harsh winters,” *The A to Z of Clean Technology*, November 8, 2011. (<http://tinyurl.com/6lvd8q3>)

“NDSU and COMSATS to develop solar water heating system for harsh climates,” *Newswise*, November 4, 2011. (<http://tinyurl.com/77pw25u>)

“World iView presentation scheduled for Nov. 17,” *It's Happening at State*, vol. 3, no. 21, p. 9, 2011. (<http://www.ndsu.edu/ahas/2011/ahas.11152011.pdf>)

- “NDSU hosts Fulbright scholar from Luxembourg,” *NDSU International Alumni E-Newsletter*, October 2011. (<http://sameekhan.org/images/valentini.pdf>)
- “Research partnership brings nations, cultures closer,” *It’s Happening at State*, vol. 3, no. 20, pp. 8–9, 2011. (<http://www.ndsu.edu/ahas/2011/ahas.10312011.pdf>)
- “Gilgit-Baltistan: Funding for Alternate Energy System in Gilgit-Baltistan,” *Gilgit Baltistan Bulletin*, June 27, 2011. (<http://tinyurl.com/85qg2lu>)
- “CIIT inks pact with US university,” *The News*, June 13, 2011. (<http://tinyurl.com/7yp8oxb>)
- “Khan recognized as Researcher of the Year,” *It’s Happening at State*, vol. 3, no. 8, p. 7, 2011. (<http://www.ndsu.edu/ahas/2011/ahas.04292011.pdf>)
- “Assistant professor appointed to green computing committee,” *NDSU News*, February 10, 2011. (<http://www.ndsu.edu/news/view/article/10538/>)
- “Cloud simulation tool released,” *IEEE Computing Now*, February 7, 2011. (<http://tinyurl.com/6u8k4sc>)
- “Researchers release cloud computing simulator,” *It’s Happening at State*, vol. 3, no. 3, p. 8, 2011. (<http://www.ndsu.edu/ahas/2011/ahas.02152011.pdf>)
- “Researchers release cloud computing simulator,” *PhysOrg*, February 4, 2011. (<http://www.physorg.com/pdf216034007.pdf>)
- “Khan appointed associate editor of computing journal,” *It’s Happening at State*, vol. 3, no. 3, p. 9, 2011. (<http://www.ndsu.edu/ahas/2011/ahas.02152011.pdf>)
- “Khan receives best paper award,” *It’s Happening at State*, vol. 3, no. 2, p. 7, 2011. (<http://www.ndsu.edu/ahas/2011/ahas.01262011.pdf>)
- “NDSU signs agreement with school in Pakistan,” *It’s Happening at State*, vol. 2, no. 34, p. 6, 2010. (<http://www.ndsu.edu/ahas/2010/ahas.12082010.pdf>)
- “Engineering professors receive grant to partner with school in Pakistan,” *It’s Happening at State*, vol. 2, no. 29, p. 3, 2010. (<http://www.ndsu.edu/ahas/2010/ahas.10202010.pdf>)

## References

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