Gurcharan S. Khanna

Profile

Experienced professional in the planning, development and delivery of advanced computing technologies to faculty, staff, and students in a service oriented academic environment. Leadership skills in strategic planning, communication, and problem solving. Special expertise in outreach, forging partnerships, and fostering collaborations.

Education

Ph.D., Anthropology, University of California, Berkeley, May 1989
M.A., Anthropology, University of California, Berkeley, June 1982
B.A., Classical Civilization, Yale University, May 1980

Experience

Executive Director of the Center for Computation & Visualization, 2015-2017

Provide leadership and vision to guide the growth and evolution of the Brown High Performance Computing cluster (OSCAR), the YURT Ultimate Reality Theater, the CAVE I, and the Visualization Lab. Responsible for the overall management of 9 staff members in the systems group, the user services group, and the virtual reality lab. Some highlights include:

- Oversee the integration of CCV into CIS
- Plan multi-million dollar budget requests for CCV infrastructure
- Organize and present workshops at URI
- Consult with prospective faculty on how to use their startup funds
- Work with CCV researchers to improve their network, storage, computing, and workflow
- Develop the CCV website, populating it as well as the CCV twitter and CCV listserv
- Increase student employees from one to eight
- Direct CCV's subcontract to the NSF EPSCoR grant, directed by University of Rhode Island
- Connect to hardware and software vendors

Director of Research Computing, Rochester Institute of Technology, 2005-2015

Responsible for fostering the growth of research at RIT through support of advanced research technologies and providing the leadership, vision, and strategic planning for

- Collaboration: Partnered with the Wallace Library Global Librarian to support overseas campuses with real-time video support
- Computation: Designed, developed, deployed and maintained a robust and diverse suite of accessible resources for faculty, staff, and student researchers for computation and collaboration
- Support: Helped faculty and researchers use shared and individual computational resources, as well as consulted, developed, and participated in innovative research technology projects
- Community: Built a connected community of researchers through campus communication venues, community outreach efforts, research collaborations, industry partnerships, and participation in global professional networks
- Managed a $400,000 operational budget

Accomplishments, Service, and Awards

- Created a Faculty Advisory Board for Research Computing
- Created a research computing environment from scratch that supported over 100 active users with High Performance Computing, Research Storage, and Networks on campus
- Established the largest research data server on campus with over 100 TB of raw disk capacity

- Managed the Center for Imaging Science Computing Support Team (2 FTE plus students)
- Instituted a Research Computing Seminar Series broadcasted live over the Access Grid
- Collaborated with the RIT Deaf Community Center to broadcast ASL lectures over the web
- Initiated a virtual RIT, the Global Collaboration Grid, connecting all RIT campuses and partners with an interactive, real-time multipoint infrastructure to support international collaboration
- Founded and directed the Interactive Collaboration Lab researching high performance network based real-time interactive collaboration technologies
- Served as Assistant Research Professor, PhD program in Computing and Information Sciences, RIT, 2007-2015
- Won a Cisco Research Grant of $471,000 in 2007
- Won additional grants from Microsoft, Sun, Apple, Fujitsu, and Hitachi
- Served as a Member of the Board of the New York State Grid and Chair of the Middleware Group, 2006-2010
- Founded and directed the Collaboration Special Interest Group of Internet2, 2004-present
- Served on the Advanced Networking Infrastructure Research Panel, National Science Foundation, 2001, 2002
- Served on the SBIR Panel, Department of Energy (ASCR), 2013
- Panelist at Summit to Create a Cyber-Community to Advance Deaf and Hard-of-Hearing Individuals in STEM (DHH Cyber-Community, Rochester, 2008),

Associate Director for Research Computing, Dartmouth College, 1995-2004

Responsible for growing the research computing infrastructure and supporting researchers with advanced computing technologies

- Hired and supervised five full-time professionals including system administrators and programmers, to support UNIX, statistics, mathematics, and bioinformatics
- Grew central computing systems from a single core computer to a 200 core HPC cluster
- Managed a $600,000 operating budget
- Managed collaboration projects with the Baker/Berry Library including an interactive 3D virtual tour of the new building
- Organized Kids on the Grid at Dartmouth to join in this national event featuring participation of local kids from K-12 schools joining together over the Access Grid (in partnership with the National Library of Medicine)
- Created the Dartmouth Research Computing website
- Created the Dartmouth eXperimental Computing Group for students to learn and teach
- Initiated the Profiles in Research video interview project
- Supervised the Interactive Campus Map development: one of the official campus maps
- Organized National Internet2 Day at Dartmouth for participation in this international event highlighting Internet2 technologies
- Invited participant at Cyberinfrastructure Workshop (National Science Foundation, Arlington, Virginia 2002)
- Participated in Microsoft Research Faculty Summits (Redmond, Washington, 2000, 2001, 2003)
- Attended the Internet2 Sociotechnical Summit (Ann Arbor, Michigan, 1999)

Supervisor of UNIX Consulting, University of Southern California, 1992-1995

Supervised 3 full-time professionals and 21 students. Supported faculty and researchers in the college, engineering and medical schools
Managed integration of UNIX consultants into the new Leavey Library
Contributed to design of ISLA: a 3D Human/Environmental geographic information system based on natural and demographic data for Los Angeles

Adj. Asst. Professor, Geography Dept., University of Southern California, 1993-1995

Designed and taught courses on Geographic Information Systems
Created the department's first website

Lecturer, Department of Anthropology, University of California, Berkeley, 1989-1992

Designed and taught courses on relational database design, digital mapping, image databases, desk-top publishing, UNIX, quantitative methods, and South Asian prehistory
Designed/wrote WDB: an interactive interface for the World Data Bank II world map database

Sound Recordist, National Archives and Records Service, Washington, D.C., 1971-1980

Responsible for the analog preservation of historic audio records on a wide range of media using original playback equipment; for professional projection of historic nitrate and acetate 70/35mm film to researchers; and for live audio recording of events and personalities

Publications

- *The Condo Cluster*, Scholarship@RIT Newsletter, Rochester Institute of Technology, Winter 2008-09
- *Research Computing Upgrades Performance*, Interface Newsletter, Dartmouth College, Fall 1997
- *Patterns of Mobility in the Mesolithic of Rajasthan*, Man and Environment 18:49-56, 1993
- Anthropology 193 Lab Manual, editor, Berkeley: Department of Anthropology, University of California, 1986-1992
- *On Electronic Communication for Anthropologists,* Current Anthropology 29, no. 2 (1988): 312