## Mohammad Zubair

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## Career Highlights:

1987 Ph.D. Special Purpose Architectures for Matrix Operations, Indian Institute of Technology, Delhi.

1996- Associate Professor, Department of Computer Science, Old Dominion University, VA.

1993-96 Research Staff Member, IBM Thomas J. Watson Research Center, New York.

1987-93 Assistant Professor, Department of Computer Science, Old Dominion University, VA.

1991-93: 1996- Consultant, Institute for Computer Applications in Science and Engineering (ICASE), Langley Research Center, NASA.

1992-93 Consultant, Naval Research Laboratory (NRL), 1992-93.

1991-92 Summer Academic Visitor, Thomas J. Watson Research Center, IBM, New York.

1994 IBM Research Division Award For Contribution to the High Performance Ennoblement of Benchmarks.

1995 IBM Research Division Award For Contribution to the MPEG Player, 1995.

## **Five Relevant Publications:**

"DL-COTF: An XML Based Digital Library for U. S. Navy's Operational Test and Evaluation Force", (with M. Zubair, S. Balusani, A. Mathur, and S. Sudeep, W. Wolters), accepted for SAC 02, March 2002, Madrid, Spain

"Arc-An OAI Service Provider", (with X. Liu, K. Maly, and M. Nelson), ACM/IEEE Joint Conference on Digital Libraries (JCDL 2001), Roanoke, Virginia, June 2001

"KEPLER - An OAI Data/Service Provider for the Individual", (with K. Maly, and X. Liu), D-Lib Magazine, April 2001.

"Scalable Digital Libraries based on NCSTRL/DIENST", (with K. Maly, H. Anan, D. Tan, Y. Zhang), ECDL 2000, Lisbon, Sept 2000

"The UPS Prototype project: team, goals, motivation and relation to the {Santa Fe} Convention", (with H. van De Sompel, T. Krichel, M. L. Nelson, P. Hochstenbach V. M. Lyapunov, K. Maly, M. Kholief, X. Liu, H. O'Connel), D-Lib Magazine, Feb 2000, Volume 6 Issue 2

#### **Five Other Selected Publications:**

"An Automated Classification System and Associated Digital Library Services", (with K. Maly and H. Anan), New Developments in Digital Libraries (NDDL – ICEIS 2001), Setubal, Portugal, July 2001.

"Personalized Portal for Wireless Devices", (with K. Maly), Tenth International World Wide Web Conference (WWW10), Honk Kong, May 2001.

- "A Java Based EDI System Over the Web", (with B. Bunting and R. Shi), Electronic Commerce, Editors Frank Griffel, Tuan Tu, and Winfried Lamersdorf, Publisher: dpunkt.verlag, pp.90-99, 1998
- "Structured Course Objects in a Digital Library", (with M. Nelson, K. Maly, S. Zeil, X. Liu), ISDL'99, pp. 89-96, Tsukuba, Japan, Sept 99
- "Buckets: Aggregative, Intelligent Agents for Publishing", (with M. L. Nelson, N.T. Shen, K. Maly), WebNet Journal, Vol. 1, No. 1, pp. 58-65, March 1999

# **Recent Grants Funded at the University:**

- "An OAl-Compliant Federated Physics Digital Library for the NSDL", NSF (With K. Maly, and M. Nelson), \$479K, 2001-2002
- "An Interoperable, Platform-Independent Digital Library for COMPTEVOR (US Navy)", Comptevor US Navy, \$75K (with K. Maly), 2000-2001
- "Automated cataloguing and Digital Library", JTASC, \$90,000, (with K. Maly), 2000-2001
- "Adaptive Web-Based Learning in Support of Transfer Students", NSF, \$90,000, 2000-2001 (With C. Wild, S. Toida, and K. Maly)
- "Planning Grant for the Use of Digital Libraries in Undergraduate Learning in Science", NSF, \$80,335, 1998-99 (With K. Maly, S. Shen, S. Zeil)
- "Web Support for Electronic Commerce Applications", IBM Partnership Award, \$20,000, 1999
- "Web Based Collaboration Tools to Support IRI Project", NSF, 1998, \$34,995.
- "Web Support for Electronic Commerce Applications", IBM Partnership Award, \$40,000, 1997-98
- Digital Library: NCSTRL+ and Usable Tools and Systems for NASA STI Mission, NASA, 1997-98, \$75,103, (with K. Maly, S. Shen)
- "Secure Web Applications for Legacy Databases, Jefferson Lab, 1997-98 \$30,000 (with K. Maly)
- ``A Web-Java Based Parallel and Distributed Computing Environment", NASA Langley, (With K. Maly), \$99,905, 1996-97.

#### Ph.D Students:

- R. Shi, Ph.D. (with K. Maly), Thesis: Federating Digital Libraries, Expected 2002.
- X. Liu, Ph.D (with K. Maly), Thesis: Harvesting Protocols for Digital Library Service Providers, Expected 2002
- H. Anan, Ph.D Student (with K. Maly), Thesis: Digital Library for 3-D Objects, Expected 2002
- S.N. Gupta, Ph.D Student (with C.E. Grosch). Thesis: Multigrid algorithms for massively parallel machines, 1992. Present Employment: Intel Supercomputing Division.
- A. Dubey, Ph.D Student (with C.E. Grosch). Thesis: Performance issues in designing general purpose subroutines for transforms on distributed memory parallel machines, 1993. Present Employment: University of Chicago.
- S. Kelkar, Ph.D Student (with K. Maly). Thesis: High performance communication networks. 1996. Present Employment: General Dynamics

### **List of collaborators:**

K. Maly, C.E. Grosch, M. Nelson, T.L. Jackson, R. Agarwal, M. Kumar, F. Gustavson, R. Joslin, M. Ghose, S.N. Gupta, U. R. Hanebutte, and E. Linzer.

**Advisor:** B.B. Madan, Indian Institute of Technology