

CURRICULUM VITAE

Hoshin Vijai Gupta

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I. PERSONAL DATA

Home Address: 941 North 6th Avenue, Tucson, Arizona 85705, USA
Telephone: (520) 275-5534
Date & Place of Birth: May 3, 1957, Bombay, India
Citizenship: United States of America, November 18, 1994
Previous name: Vijai Kumar Gupta (prior to citizenship)

II. EDUCATION

Ph.D. Systems Engineering. Case Western Reserve University, Cleveland, Ohio, 1984
M.S. Systems Engineering. Case Western Reserve University, Cleveland, Ohio, 1982
B.Tech. Civil Engineering, Indian Institute of Technology, Bombay, India, 1979

III. PROFESSIONAL EXPERIENCE

The University of Arizona

1/05 – Professor, Dept. of Hydrology and Water Resources, The University of Arizona, Tucson, Arizona
1/00 - 12/04 Associate Director for Administration & Science, SAHRA, NSF Science & Technology Center for “Sustainability of semi-Arid Hydrology and Riparian Areas,” The University of Arizona, Tucson, Arizona
7/96 – 12/04 Adjunct Professor, Dept. of Hydrology and Water Resources, The University of Arizona, Tucson, Arizona
2/94 - 6/96 Adjunct Associate Professor, Dept. of Hydrology and Water Resources, The University of Arizona, Tucson, Arizona
8/89 - 1/94 Adjunct Assistant Professor, Dept. of Hydrology and Water Resources, The University of Arizona, Tucson, Arizona
7/87 - 7/89 Research Associate, Dept. of Hydrology and Water Resources, The University of Arizona, Tucson, Arizona
9/83 - 12/84 Research Associate, Dept. of Hydrology and Water Resources, The University of Arizona, Tucson, Arizona

Hydro Geo Chem, Inc.

1/85 - 6/87 Mathematician and Modeler, Hydro Geo Chem, Inc., Tucson, Arizona
10/85 - 6/87 Mathematician and Modeler, Terragraf Inc., Tucson, Arizona

Case Western Reserve University

9/79 - 8/83 Research Assistant, Dept. of Systems Engineering, Case Western Reserve University, Cleveland, Ohio

IV. HONORS & AWARDS

Teaching:

Teaching Award, 2007 Aquaman Award for Excellence in Teaching, selected by vote of the students, UA-HWR/Engineering.

Teaching Award, 2006 Aquaman Award for Excellence in Teaching, selected by vote of the students, UA-HWR/Engineering.

Research/Professional:

Professorship, SRP Professor of Technology, Public Policy & Markets, funded by Salt River Project, Phoenix, Arizona, 2006-2009

Invited “Penman” lecturer at the 7th Annual British Hydrological Society National Symposium, University of Newcastle upon Tyne, September 6-8, 2000. Talk titled: “Some Comments on the Identification of Hydrologic Models.”

Invited lecturer at the Royal Society Discussion Meeting on Flood Risk in a Changing Climate, London, UK, Nov 21-22, 2001. Talk titled: “The Challenge of Predicting Flash Floods From Thunderstorm Rainfall.”

Chair, International Commission on Coupled Land-Atmosphere Systems, International Association of Hydrologic Sciences. Elected July 2003. Term begins April, 2005.

V. AREAS OF RESEARCH INTEREST

Surface water hydrology, rainfall-runoff models, land-atmosphere transfer scheme models, flood-forecasting, hydrology of semi-arid regions, prediction in ungaged basins, theory of evaluation, constraining lumped and distributed hydrologic models with observations, multi-criteria analysis, sensitivity analysis, blending expert knowledge into automated procedures, Bayesian estimation, recursive methods, uncertainty analysis, information content of data, data assimilation, application of remotely sensed data in hydrology, estimation of precipitation from remotely sensed data, relationship of scale to hydrologic process dominance, development and applications of artificial neural networks, theory and practice of model building, multi-objective stochastic recursive global optimization, interactive computer modeling, multi-resolution multi-disciplinary integrated modeling, decision analysis and decision support systems, merging hydrologic and economic models in support of decision making and policy analysis.

VI. PROFESSIONAL AFFILIATIONS

American Geophysical Union

American Meteorological Society

AGU Surface Water Committee

ASCE Task Committee on Neural Networks in Hydrology

Indian Association of Hydrologists (IAH), India

International Association of Hydrological Sciences (IAHS)

IAHS Activity on Prediction in Ungaged Basins (IAHS/PUB)

GAPP Core Advisory Panel for MOPEX, Section Member

IAHS Editorial Board for Series on Benchmark Papers in Hydrology

VII. PUBLICATION RECORD (see attachments for details)

- 14 Publications in preparation
- 6 Publications in review
- 7 Publications in press
- 5 Books published (Authored or edited)
- 83 Papers published in refereed journals
- 21 Refereed book chapters published
- 21 Conference proceedings published
- 47 Keynote and/or invited talks given
- 182 Contributed talks (oral + poster)
- 30 Written reports
- 1 Data CD Rom

VIII. TEACHING & MENTORING RECORD (see attachment for details)

- 15 Courses taught
- 8 Post-doctoral students supervised or co-supervised
- 26 Ph.D. students supervised or co-supervised
- 16 M.S. students supervised or co-supervised
- 5 External examiner committees

IX. PROFESSIONAL SERVICE RECORD

- 24 Professional meetings & conference sessions organized or chaired
- 5 National or International Committees or panels chaired or led
- 10 National or International Committees participated on
- 8 University Committees led or participated on
- 2 Editorial Boards
- 15 Journals served as reviewer for

X. CONSULTING RECORD

- 2000 Desert Research Institute, Bayesian for cost-benefit analysis of collecting additional data and its associated reduction in uncertainty on a groundwater flow-and-transport model.

XI. FUNDING RECORD (see attachments for details)

- \$210,839 as co-investigator in pending proposals
- \$45,327,897 as co-investigator in funded proposals

XII. EXTRA-CURRICULAR ACTIVITIES

Music Performance:

Leader of six-piece music group “Water on the Rocks” in Tucson, Arizona, playing guitar (jazz, latin, rock and folk music), 2002-present.

Leader of various western music groups including at the Indian Institute of Technology, Bombay, India, 1975-79, and Lawrence School, Lovedale, Ootacamund, India, 1970-1974.

Music CD's:

A Strange Brew, Rock Opera, Original Music CD in preparation, 2007

No Sabes Nada, Music Inspired by Brazil & Mexico, Music CD in preparation, 2007

Tell Everybody, Music CD recorded by “Water On The Rocks” at Luna Recording Studio, Tucson Arizona, 2005.

Meditation:

Teacher of Zen meditation; lead twice yearly meditation retreats in Las Vegas, New Mexico, since 1997.

Participant in traditional Native American (Lakhota Sioux) Ceremonial practices since 1987.

Home Renovation:

Renovation and restoration of a 1913 “Arts and Crafts” era home in the West University neighborhood of Tucson, Arizona.

Martial Arts:

Student of Wing Chun Gung-Fu with Sifu Augustine Fong, Tucson, Arizona, 1985-1995.

Sailing:

Invited participant in the Indian pre-Olympic sailing team selection trials, Bombay, India, 1977.

Represented India at the South-East Asian sailing championships, Sri Lanka, 1976.

Represented India at the Youth World Cadet Class sailing championships in Veere, Holland, 1974.

Service:

Founder of the “Rocks and Water” Zen Meditation Hall (2003-present), Tucson Arizona.

First president (1997-1998) of Zen Desert Sangha, Tucson, AZ; periodically serve on Board of Dirs.

Founder and first president (1987-1990) of the Tucson Community Meditation Center, Tucson, Arizona.

Miscellaneous:

Graduate of the Anthony Robbins “Mastery University”, 1993-94.

XIII. LIST OF COLLABORATORS

(Now at ¹UC Irvine, ²UC Merced, ³Utah State U, ⁴U Texas, ⁵CUNY, ⁶UCLA, ⁷Lawrence Berkley Labs, ⁸UCAR, ⁹PSU)

University of Arizona:

Soroosh Sorooshian¹, William J. Shuttleworth, Roger Bales², Juan Valdes, Tom Maddock III, David Goodrich, Bart Nijssen, Steve Mullen, Robert A. Maddox, Ferenc Szidarovsky, Gary Woodard, Jim Washburne, Zong Liang Yang⁴, Bisher Imam¹, Xiaogang Gao¹, Kuolin Hsu¹, Luis Bastidas³, Shayesteh Mahani⁵, Terri S. Hogue⁶, Thorsten Wagener⁹, Yuqiong Liu, Peter Troch.

Other Universities:

Howard S. Wheeler, Thorsten Wagener, and Matthew J. Lees (Imperial College London, UK), Keith Beven and Peter Young (U Lancaster, UK), J.F. Mahfouf (ECMWF, UK), Willem Boughten and Jasper Vrugt (U Amsterdam, Holland), Andrew J. Pitman, Ann Henderson-Sellers, and Y Xia (Macquarie University, Sydney, Australia), Douglas Boyle and Greg Pohl (U Nevada Reno/Desert Research Institute), David Brookshire (U New Mexico).

Government Agencies:

Paul Houser (NASA/GSFC, Maryland), John Schaake, Michael Smith, Victor Koren, D.J. Seo, and Qingyun Duan⁷ (NOAA/HL-NWS, Maryland), Dean Braatz (NOAA/NWS, OH), Ken Mitchell and Dag Lohmann (NOAA/NCEP, Maryland), Larry Winter⁸ and Everett Springer (LANL, New Mexico), Vince Tidwell (SNL, New Mexico), George Leavesley (USGS, Colorado).

Private Organizations:

David Ford (Ford Consulting, California), Henrik Madsen (Danish Hydraulic Institute, Denmark).

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