

CURRICULUM VITAE

Dr. (Mrs) Ramani Bai Varadharajan

Associate Professor, Department of Civil Engineering,
University of Nottingham Malaysia Campus,
Jalan Broga, Semenyih,
Selangor State, Malaysia.
Tel (Off): +603 8924 8604. Fax: +603 8924 8017
Mobile: +6 016 2934112
vramanibai@gmail.com, Ramani-Bai.V@nottingham.edu.my



- Work Experience** : 17 years (11 years University teaching, 6 years in research and projects)
- DoB & Nationality** : 13.05.1972, Indian. Holding employment pass in Malaysia. Approval in process for PR status in Malaysia.
- Gender/ Marital Status** : Female. Married & residing in Kuala Lumpur since May'02 with husband (Working in Malaysia) and two sons born in Malaysia (6 years old and 1 year old).
- Passport No.** : Z1800658, **D. L. No:** 462112. Traveled Singapore, China, Japan, Thailand & Miami, Washington, Illinois, Chicago, London and Oxford cities.
- Languages** : Speaking, Reading and Writing ability in English, Tamil and Malay.

EDUCATION

- Jan2000–Dec2003: **Ph.D** (Environmental & Water Resource Engineering)
Indian Institute of Technology, Madras, India.
Dissertation: Derivation of Reservoir Operation Policies Using Artificial Neural Networks and Fuzzy Logic Models
Courses Studied and Specialized: Advanced Hydrology, Water Resource Systems Engineering, Irrigation Engineering, Applied Fluid Mechanics, Computer Simulation, Artificial Neural Network and Fuzzy Logic Systems.
- Jun1993-Dec1995: **M.E** (Water Resource Engineering & Management)
Regional Engineering College Trichy, India.
First Class pass with University 2nd Rank.
Dissertation: Performance Evaluation for Irrigation Water Delivery System
- Jun1989-Apr1993:**B.E** (Civil Engineering)
Madras University, India. First Class Pass.
Dissertation: Computer Analysis of Space frame structure
- Jan2004-Apr2006: **Malay Language Proficiency course**, Centre for Continuing Education(UMCCed)
University of Malaya, Kuala Lumpur, Malaysia.
Passed with Distinction and Credits.

PATENTS

1. P120083481: Ramani Bai V., Azizan Abu Samah, R. Gopinath (2008): System, method and equipment to perform artificial neural network based data mining in flood operation and control.
2. PI20084943: Ramani Bai V., Faisal Haji Ali (2008): Method for predicting seawater intrusion.
3. PI20082941: Ramani Bai V., Md. Ghazaly Shaaban, Gopinath Ramadas (2008): System, method and apparatus to determine water quality assessment.
4. PRODUCT LICENSE: Software developed on water quality index (physio-chemical) using neuro-fuzzy logic (licensing initiated)

AWARDS

- May '10 Gold medal in International Invention, Innovation & Tech. Expo
- May '09 Silver medal in Water Innovation Expo'09, Malaysia
- Feb '09 Silver medal in Malaysian Technology Expo'09
- May '08 Silver medals (Two Awards in International Invention, Innovation & Tech. Expo)
- Feb '08 Gold-1 and Bronze-1 medals (Two Awards in Malaysian Technology Expo'08)
- 2007 Two Bronze Medals (Int. Exposition of Research and Inventions of Institutions of Higher Learning)
- 2005 APHW (Asia Pacific Association of Hydrology & Water Resources) research award
- 1999 Best Faculty Award
- 1995 University IInd Rank in M.E
- 1987 Scholarship Merit certificate

PRESENT OCCUPATION

May'08-Till Date: **University of Nottingham Malaysia Campus (UNMC), Malaysia**

Associate Professor: Teaching undergraduates courses in Department of Civil Engineering in UNMC. Supervising postgraduate student's dissertations and Collaborating in Projects funded by MOSTI and MOHE, Malaysia with University of Malaya. Undertaken few research projects funded from Japan and Malaysia.

OTHER TEACHING EXPERIENCE

May'05-15th May'08 **University of Malaya (UM), Kuala Lumpur, Malaysia.**

Lecturer: Teaching water and environmental related subjects, supervising and guiding Bachelor degree and Post graduate student projects in the same field. The courses currently being taught by are **Water Supply Engineering, Water Treatment, Open Channel Hydraulics, Water Resources, Surface Water Quality Modeling, Thinking and Communication Skills for Civil Engineers, etc. GIS in Environmental and Water resources engineering (In proposal)**. Acting as Internal and External Examiner for Post graduate dissertation works. Supported and organized seminar, workshop and conference in research units. Undertaken projects sponsored by Asia Pacific Network, Japan and Ministry of Science, Technology & innovation, Malaysia and applied for NOD and CIDB, Malaysia projects. Acting as external reviewer of APN projects and few other projects and for International Journals.

June '02-Apr '05 **Visiting Lecturer** for Distance Education B.Engg. Degree Programme in Malaysia.

Dec'95-Dec'99 **Periyar Maniammai College of Tech. for Women, Thanjavur, South India.**

Lecturer: Taught civil engineering subjects, Guided student's projects, Acted as project coordinator (MODROBS), Computer & Hydraulics Lab I/c, Concurrent Career Guidance Program I/c, Course coordinator (STAAD-III, AutoCAD), Student Counseling Coordinator, Designed & Evaluated question papers for TNPSCE and University. Designed syllabus for Civil Engineering subjects.

July'95-Dec'95 **Regional Engineering College, Trichy, South India.**

(Part-time) **Visiting Lecturer:** Taught civil engineering subjects for part-time course
Designed question papers for University exams.

July'95-Dec'95 **Thanthai Roever Institute of Polytechnic, Trichy, South India.**

Lecturer: Taught civil engineering subjects, Hydraulics Lab I/c

RELATED PROJECT EXPERIENCES

Dec'99-June 2002 **Indian Institute of Technology, Madras, Chennai, South India.**

Senior Project Officer: Worked in "Application of system models to planning and management of Water resources of Vaigai Basin", project worth of Rs.24 lakhs in South India. Developed/Solved Crop planning model and GW transient state model and Studied scientifically water balance of the system and their assessment.

- Jan '97- Jan'99 **All India Council for Technical Education**, (PMCTW Center, Thanjavur), South India.
Chief Invigilator: Modernization of Hydraulics lab project worth of Rs.10 lakhs. Designed new machines for Hydraulics lab, Established Lab with Data Acquisition system and modern irrigation systems as drip and sprinkler units at the college campus.
- Dec'93-Dec'94 **Diamond Housing Developer**, Trichy, South India.
Field Engineer: Multi-storied building construction project worth of Rs. 25 lakhs.
- Apr'95-July'95 Prepared plans, estimates and detailed designs of Multistoried building.
 Supervised the Construction from basement to finishing works and Settlement of Bills etc
- Sep'93-Nov'93 **Public Works Department**, Trichy, South India.
 and **Technical Assistant/Field Engineer:** Construction of Education buildings worth of Rs. 20 lakhs. Verified plans, designs and estimates, prepared bills, supervised the construction from basement to finishing of Type C and E buildings.
- Jan'95-Mar'95

MEMBERSHIPS AND YEAR ELECTED

- Society of Industry Leaders, New York, 2008
 EWRI (Environmental and Water Resources Institute of ASCE), 2007
 The Geological Society of London, 2007
 IWA (International Water Association, London) 2007
 ENSEARH, (Environmental Mgmt & Research Association of Malaysia), 2005
 MWA (Malaysia Water Association), 2004.
 MISTE (Member in Indian Society for Technical Education), 1997.

POST-GRADUATE DISSERTATION SUPERVISION

Pursuing year	Candidate name	Dissertation Title	Degree	Supervision Ending & University
2007	Abolghasem Akbari (Iran)	Flood prediction using GIS based hydrological model and Neuro-fuzzy logic method	Ph.D (Engg)	2008 UM
2006	Sadia Ata (Pakistan)	Development of water quality model for drinking water using fuzzy logic	Ph.D(Training) (Completed)	2007 UKM
2007	Ali Ghasemi (Iran)	Development of Integrated water management model based on Inverted Tree Concept and PIM	Ph.D(Engg.)	2008 UM
2006	Kalai Magal (Malaysia)	Geo - Chemical analysis of Groundwater to determine effect of seawater intrusion	M.Sc. (Completed)	2007 UM
2008	Alaa Eldin (Sudan)	Design of storm water management system using GIS	M.Engg.	2008 UM
2010	Reza Kabiri (Iran)	Climate Change and its Impact assessment	M.Engg.	2013 UNMC

COMPUTER EDUCATION

ArcView GIS, Spatial Analyst, 3D modeling in GIS, Matlab programming using ANN, Fuzzy logic, Optimization, Database and Matlab Compiler, Visual Modflow (Groundwater Modeling Software), Operational Research Packages (Lindo, etc.), STAAD III Ver.22.0, AUTOCAD, 3 D Studio, Oracle 8.0, Visual Studio, C++ , C and Fortran 77.

TRAINING/COURSE/WORKSHOP ATTENDED

No	Title	Duration	Organizer
1	Planning, Design and Construction of high rise buildings	15-30 May 1992	Bharat Heavy Electrical Ltd. Trichy, INDIA
2	Design and Estimation of Special Buildings	1-23 June 1992	Public Works Dept., Trichy, INDIA
3	Training on Neuro-Fuzzy Applications in Civil Engineering	11-23 June 2001	Water & Environment Division, Regional Engineering College, Warangal, AP, INDIA
4	Training on Scheduled Waste Management	20- 21 Nov 2006	ENSEARCH, Petaling Jaya Selangor, MALAYSIA.
5	Non – Revenue Water Management and Practice by Ministry of Energy, Water and Communications Malaysia	2 – 6 April 2007	Royal Adelphi Hotel, Seremban, 70100 Negeri Sembilan, MALAYSIA.
6	Storm water management in compliance with the requirement of DID Urban Storm Water Management Manual for Malaysia (MASMA)	14 – 16 Aug 2007	Lestari Software Solutions, UKM, Bangi, MALAYSIA.
7	Regional training workshop on Flood Disaster Risk Management (FDRM-8)	8 – 19 Oct 2007	Asian Disaster Preparedness Center, Pathumthani, THAILAND
8	Poster Design Workshop	2 Jun, 2007	Faculty of Education, UM
9	Workshop on MATLAB & SIMULINK	12 Jun, 2007	Sheraton Hotel Subang, KL
10	ArcGIS 9.2 I, II, ArcGIS 2D and Spatial Analyst.	20 July – 10 Aug 2007	ESRI, South East Asia, KL
11	Three-day Specialized short course on Water treatment theory and design	1-3, Nov 07	Hotel Armada, PJ, KL

RECENT PUBLICATIONS**Books:**

1. Mohan, S and V. Ramani Bai (2003) *Intelligent Systems Design and Application, Advances in Soft computing, Part 1: Connectionist Paradigms and Machine Learning*, On Improving Data Fitting Procedure in Reservoir Operation using Artificial Neural Networks, Springer-Verlag, New York Inc., pp. 13-23.
2. Ramani Bai V. (2006). *Advances in Geosciences - Hydrological Science (HS)*, Inter and Intra Neuronal Systems for Reservoir Operation Technical publication Volume 4: pp.149-159, World Scientific Publishing Company Pte Ltd., Singapore.
3. Ramani Bai V., Sumiani Yusoff and S. Mohan (2007). *Land-use & Natural Resources: Context of Disaster Reduction and Sustainability*. Groundwater resource management by Hydraulic simulation of groundwater flow using Visual Modflow, National Institute of Disaster Management Ministry of Home Affairs, New Delhi. (In press)
4. Ramani Bai V., R. Gopinath and S. Mohan (2007) Application of Artificial Neural Networks in Water Resources Engineering. Galileo International Publishing Company, Amsterdam, The Netherlands. (Draft). Pp. 1-200.

Journals:

1. Mohan, S and V. Ramani Bai (2003) Reliability Based Conjunctive Use Optimization Model for Crop Planning. *Indian Journal of Power & Valley development*, Vol 53(12): pp. 215-221.

2. Ramani Bai and Mohamad Rom Tamjis (2008). Water Quality in Health Care. *International Journal of Environmental Technology and Management*. Vol. 9 (1): pp 125-140.
3. Ramani Bai V., and Mohamed Rom Tamjis (2007). Fuzzy logic model on operation and control of Hydro-Power dams in Malaysia. *International Journal of Computer Modeling in Engineering and Sciences*, Vol. 4. (1), pp. 31-39. <http://ekasearch01.eurekalert.org/e3/query.html?qt=ramani&col=ev3rel&qc=ev3rel>
4. Ramani Bai V., Punithan. P and Md. Rom Tamjis (2008). Kajian Tidak Linear Penerobosan Air Laut Dan Kaedah Evolusi Untuk Melindungi Hakisan Terhadap Pantai. *Academy of Science Malaysia Journal..* (In Press).
5. Ramani Bai V., and Kalai Magal Manickam (2008). Determination of Seawater Intrusion by Geo-chemical analysis of groundwater. *International Journal of Hydrology*. (In process)
6. Ramani Bai V. and Malek Saidin (2008). Kata semacam kata Bahasa Tamil dalam Bahasa Melayu. *Jurnal Dewan Bahasa* (In process).
7. Ramani Bai V., (2009). Groundwater-Surface water interaction model to study the impact of transport of colloids in coastal environs. *IWA journal of Water Research* (WR12355).
8. Ramani Bai V., Mohan S. and Gopinath R., (2009). Development of Fuzzy Logic Water Quality Index and Ways to incorporate pathogens in WQI. *IWA journal of Water Research* (WR12375).
9. Ramani Bai V., Reinier Bouwmeester and Mohan S., (2009). Fuzzy Logic Water Quality Index and Importance of Water Quality Parameters. *Int. Journal of Air, Soil and Water Research*, Vol. (2): pp 51-59.
10. Ramani Bai V., Tklich, P and Mohan S., (2008). Hydro-chemical pollution of coastal groundwater resource and impact on its eco-system. *IWA journal of Water Research* (manuscript submitted).
11. Ramani Bai V., Mohan, Reza Kabiri and Gopinath R., (2010). New Database Information Management System for Climate Change – A longtime awaited online online resource. *ACS Journal of Environmental Science and Technology, for Jan 1, 2011 issue. (In review, Manuscript ID: es-2010-01479s)*.
12. Ramani Bai V., (2010). Coastal erosion due to Seawater Intrusion into groundwater aquifers. *Int. Journal of the Open Hydrology* (In Press).

Conference Proceedings:

1. Mohan, S and V. Ramani Bai (2000) Ground Water Potential Estimation - A comparative Analysis. *Proc. of International Symposium for "Lake 2000": Restoration of Lakes and Wetland*, IISc, Bangalore, Paper I Section 7, pp. 27-29.
2. Mohan, S and V. Ramani Bai (2002) A dynamic programming model for operation of Vaigai reservoir. *Proc. of National Seminar -Water Resources Sys. Planning & Management in Annamalai University, Tamil Nadu, B50-B55*.
3. Mohan, S and V. Ramani Bai (2003) Neural Network Based Conjunctive use Model for Operation of Vaigai Reservoir. *Proc., of National Conference on Land Care Movement for Food, Water and Livelihood security*, Anna University, Chennai, pp.4.4.
4. Ramani Bai V. (2005). Use of Artificial Neural Networks in Reservoir operation. *Proc. of Water Malaysia 2005 – A Biennial National Conference & Exhibition on Water & Wastewater Management*. Kuala Lumpur. pp. 1-5

5. Ramani Bai V., Mohamed Rom Tamjis and Anas. R (2007). Application of Neuro-Fuzzy Logic In Reservoir Operation, *Proc. of 6th Asia-Pacific International Symposium on Information Technology APIS'06*, Jan 20-21, 2007, Kuala Lumpur, Malaysia, pp. 95-98.
6. Ramani Bai V., Mohamed Rom Tamjis and Anas. R (2007). Comparative Study on Performance of Two Backpropagation Algorithms in Artificial Neural Networks, *Proc. of 6th Asia-Pacific International Symposium on Information Technology APIS'06*, Jan 20-21, 2007, Kuala Lumpur, Malaysia, pp. 122-125.
7. Ramani Bai V., Mohamed Rom Tamjis and Anas. R (2007). Operation and Control of Hydro-Power Dam Using Fuzzy Logic, *Proc. of 6th Asia-Pacific International Symposium on Information Technology APIS'06*, Jan 20-21, 2007, Kuala Lumpur, Malaysia, pp.118-121.
8. Ramani Bai V., Mohamed Rom Tamjis and Anas. R (2007). Need For Artificial Neural Network Based Model for Medical Waste Segregation And Safe Disposal, *Proc. of 6th Asia-Pacific International Symposium on Information Technology APIS'06*, Jan 20-21, 2007, Kuala Lumpur, Malaysia, pp. 186-188.
9. Ramani Bai V., Mohamed Rom Tamjis and Anas. R (2007). Artificial Neural Network Modeling for Hydro-Power Project, *Proc. of 6th Asia-Pacific International Symposium on Information Technology APIS'06*, Jan 20-21, 2007, Kuala Lumpur, Malaysia, pp. 35-38.
10. Ramani Bai V. and Mohamed Rom Tamjis (2007). Fuzzy logic model on operation and control of Hydro-Power dams in Malaysia. *Proc. of International Conference on Computational & Experimental Engineering and Sciences*, 3-8 Jan'07, Miami, Florida, USA, pp 1147-1154.
11. Ramani Bai V. and Mohan, S (2007). Conjunctive use in operation of reservoir for Irrigation using Artificial Neural Networks. *Proc. of International Conference on Water Resource Management: Challenges and Opportunities in the 21st Century*, 23-25 Apr'07, Department of Ecology & Environmental Science, Assam University, Silchar, India. pp 47-56.
12. Ramani Bai V., S. K. Pramada and Faisal Haji Ali Alhaj (2007). An improved method of prediction of seawater intrusion using Visual Modflow. *Proc. of Bicentennial International conference of the Geological Society of London*, 10-12 Sep'07, Queen Elizabeth II Conference Centre, London, UK, pp 116.
13. Ramani Bai V., Woo Chaw Seng, Faridha Othman and Gopinath Ramadas (2007). Neural Networks based Data Mining and Knowledge discovery in Dam operation and control. *Proc. of INFORMATICS07*, Nov 27-28, 2007, Hotel Hilton, Kuala Lumpur, Malaysia. T1: Pp. 14 – 20.
14. Ramani Bai V., Md. Ghazaly Shaaban, S. Mohan (2007). Small water system management in coasts of West Malaysia. *IWA Journal of Water Science and Technology*, SWS-192R1 (In peer review).
15. Ramani Bai V., Md. Ghazaly Shaaban, Md Pauzi Abdullah and Sadia Ata (2007). Development of new water quality model using Fuzzy Logic system for Malaysia. *IWA Journal of Water Science and Technology*, SWS-016R1.
16. Ramani Bai V., Gopinath Ramadas and Richard Simons (2008). GIS technology in Water Resources Parameter Extraction in Flood Forecasting. *Proc. of FLOODrisk2008*, Sep 30- Oct 2, 2008, Keble College Oxford, UK (In Balkema Publishers – Taylor & Francis, The Netherlands Press).
17. Ramani Bai V. and Reinier Bouwmeester (2008). Clean sustainable technology for water quality index using fuzzy logic system. *Proc. of Green Growth*, Dec 15-18, 2008, IBS, Hyderabad, India.
18. Ramani Bai V. and Mohan S. (2009). Groundwater Model for Investigating Seawater Intrusion Hazards. *Proc. of Int. conference on Disaster Mitigation and Management (ICDMM-2009)*, Dec 16-18, 2009, PSNA, Tamil Nadu, India.

Publications in Teaching:

1. A.Akbari and V.Ramani.Bai (2007). The Use of HEC-GeoHMS and HEC-HMS to perform GIS based Flood Analysis of a Watershed. *Proc. of Int. Symposium & Exhibition on Geo-information 2007 & International Symposium on GPS/GNSS 2007 (ISG-GNSS2007)*, Johor, Malaysia 5-7 Nov'07. (Awarded First Prize)
2. A.Akbari, V.Ramani.Bai and Azizan Abu. S (2008). Estimating Spatial Curve Number (CN) for flood Analysis of urbanized watershed. *Proc. Int. conference on Challenges in Facing Natural Hazards for Future Engineering Practice, ICCE08*.
3. A. Akbari, Azizan Abu Samah and V. Ramani Bai (2008). Spatial Data Updating using enhanced satellite image. *Proc. of Int. Conference on Environmental Research and Technology*. Pp682-685.
4. Alaa Eldin. M, Ramani Bai V. and Faridah Othman (2008). Application of GIS in Storm Water Management. *Journal of Public Sector ICT Management Review*, Vol.1. (3). (In Peer review).

Participation in Exhibition and Others:

1. Ramani Bai V, Azizan Abu Samah and Mohan.S (2007) Design of data mining framework to mind flood modeling in artificial neural network. *International PECIPTA'0*, KLCC, Malaysia, Aug 10-12. (Awarded **Bronze** medal).
2. Ramani Bai V, Abolghasem Akbari, Azizan Abu Samah (2007) Flood modeling and prediction using GIS. *International PECIPTA'07*, KLCC, Malaysia, Aug 10-12. (Awarded **Bronze** medal).
3. Ramani Bai V., Faisal Haji Ali Alhaj and Zamin Jumaat Alhaj (2007). Nonlinear parameter estimation technology to detect seawater intrusion into the West Malaysian groundwater aquifers. *International PECIPTA'07*, KLCC, Malaysia, Aug 10-12.
4. Ramani Bai V., Azizan Abu Samah, Faridah Othman and Gopinath Ramadas (2008). Integrated decision support system for flood management using artificial neural networks. Invention and Innovation : *Malaysian Technology Expo (MTE 2008)*, Feb 21-23, 2008, PWTC, Malaysia. (Awarded **Gold** Medal).
5. Ramani Bai V., Md. Ghazaly Shaaban, Abdul Rani Abdullah and Kalai Magal Manickam (2008). New software for generating water quality index based on fuzzy logic system. Invention and Innovation: *Malaysian Technology Expo (MTE 2008)*, Feb 21-23, 2008, PWTC, Malaysia. (Awarded **Bronze** Medal).
6. Ramani Bai V. and Research Team (2008). 1) New WQI software based on Fuzzy logic system, 2) Data mining framework to mine flood modeling, 3) Digital Elevation model and Database of Klang Valley, 4) Decision support system for spatial flood management based on artificial neural networks and 5) Seawater intrusion Predictor. *ASIAWATER 2008 Expo and Forum*, April 1-3, 2008, KLCC, Malaysia.
7. Ramani Bai V., Gopinath. R, Azizan Abu Samah, Abolghasem Akbari and Mohamad nor Mohamad Desa (2008). Flood Risk Assessment and Real Time Warning System by GIS-ANN. *Information Technology Education & Exposition (ITEX08)*, May 9-11, KLCC, Malaysia. (Awarded **Silver** Medal).
8. Ramani Bai V., Kalai Magal Manickam, Md. Ghazaly Shaaban and Abdul Rani Abdullah(2008). UNIQ2007: Fuzzy logic water quality assessor. *Information Technology Education & Exposition (ITEX08)*, May 9-11, KLCC, Malaysia. (Awarded **Silver** Medal).
9. Ramani Bai V., Abdul Rani Abdullah and R. Gopinath (2009). UNIQ2008: New Software for Better Water Quality Index using Neuro-Fuzzy logic. *Malaysian Technology Expo (MTE 2008)*, Feb 19-21, 2009, PWTC, Malaysia. (Awarded **Silver** Medal).
10. Ramani Bai V., Reinier B., Abdul Rani A. B., (2009). New software for WQI (UNIQ2008) using neural networks and fuzzy logic systems. Water Malaysia Exhibition, May 19-21, 2009, PWTC, Malaysia. (Awarded **Silver** Medal).

Invited speech in Seminar / Course / Workshop:

1. Resource person of a *Technical Talk*, “*Streamflow Measurements*”, Gandhigram University, Dindigul. Dec 1998.
2. Resource person of a *Technical Talk*, “*Ecological Balance by maintaining pH of Drinking Water – Case study at Thanjavur*”, Gandhigram University, Dindigul. Jan 1999.
3. Sole Resource Person of *One-day seminar* on “*Neuro-Fuzzy to Water Resources - A Modern Paradigm*” conducted by RCFISET, Fac. Engg., University of Malaya, Kuala Lumpur, 7 July 2005.
4. Sole Resource Person of *Two-day seminar* on “*Flood plain management and Flood forecasting*” conducted by CPD, Faculty of Engg., University of Malaya, Kuala Lumpur, 21-22, March 2006.
5. Resource Person of two sessions: “*1) Artificial Intelligence Methods in Civil Engineering and 2) Advances in Water and Wastewater Treatment*”, in *2-day Seminar in Kejuruteraan Awam, Akademi Tentera Malaysia(ATMA), Kem Sungai Besi, 2-3 May’06*.
6. Resource person of one session of *Seminar in Kejuruteraan Awam* on “*Water Reticulation System Design in Compliance with the Malaysian Water Association Guidelines for Water Supply Systems*”, in National Defence University of Malaysia, Sungai Besi, Kuala Lumpur, 21 Feb 2007.
7. Resource person of one session of *Regional workshop on Flood Disaster Risk Management (FDRM-8)* on “*Prediction of spatial distribution of flood potential using Integrated GIS based Neural Network models*”, in Asian Disaster Preparedness Center, AIT, Bangkok, Thailand, 8-19 Oct 2007.

EARLIER PAPER PUBLICATIONS

1. Ramani Bai V.. (1993) *Computer Analysis of Space Frame Structure* – National Seminar at Indian Institute of Technology, Madras, May.
2. Ramani Bai V.. (1994) New fangles of safety of dams. *Proc. of Diamond Jubilees Research and Development Session of CBIP*, New Delhi, Dec 9-12.
3. Ramani Bai V.. (1994) *New fangles of safety of dams*. Diamond Jubilees Research and Development Session of CBIP, New Delhi, Dec 9-12.
4. Ramani Bai V.. (1995) *Project Indicators* – Seminar at REC, 23rd Dec.
5. Ramani Bai V.. (1996) *Optimum River Basin Planning and Management*. Overseas Development Institute of London Nwi, NS, UK. Published in ODL Aug 1996.
6. Ramani Bai V.. (1997) *Structural Analysis and Design* – Speech given at Institution of Engineer, Local Chapter at Trichy, Nov.
7. Ramani Bai V.. (1998) *Modernization of Hydraulics Laboratory*, - AICTE, New Delhi, Feb.
8. Ramani Bai V.. (1998) Pollution through major Industries and their control. *Proc. of National Seminar on Environment and Development*, Punjab Agricultural University, Ludhiana. 12-16, Nov.
9. Ramani Bai V. and P. Jegathambal (1998) Global Warming-Environmental Hazards and their control. *Proc. of National Seminar on Environment and Development*, Punjab Agri. University, Ludhiana, 21-23 Nov.
10. Ramani Bai V.. (1999) Preservation of Water through Engineering Percolation Ponds. *Proc. of National Seminar*, S.V.U. College of Engineering, Tirupathi. 12-13, March.

Professional Conference / Seminar / Symposium attended:

1. Seminar on Ecology, Environment and Water Management, 18-19 Dec '96, Irrigation Management and Training Institute, Thuvakudi, Trichy
2. Remote Sensing Techniques and its Application, Nov '97, National Seminar at Bharadhidasan University, Trichy
3. In-house training programme on “*TQM in Technical Education*”, 27-29, Jan '97, Periyar Manniammai College of Technology for Women, Vallam, Thanjavur.

4. One-day workshop on Pollution Control in Industries, Feb '97, Periyar Centenary Girls Polytechnic, Vallam, Thanjavur.
5. Two-day course on Recent Development in Civil Engineering Theory and Practice, Aug '97, Institution of Engineers, Local Chapter, Palcad.
6. Industry-Institute Partnership-Issues & Challenges, Oct '97, Periyar Maniammai College of Technology for Women, Thanjavur, Tamil Nadu.
7. National Training course on Application of Electronics in Agricultural Field Investigations, 19-24 Jan '97, Central Institute of Technology (Indian Council of Agricultural Research) Cochin
8. National Seminar on Application of Computers in Irrigation Management, 5-6 May 1998 Irrigation Management and Training Institute, Thuvakudi, Trichy
9. Six days programme at Defense Research and Development Organization, Hyderabad, 7-12 Nov '98, DRDO, Hyderabad
10. National Seminar on Environment and Development, 21-23 Nov '98, Agricultural University, Ludhiana, Punjab.
11. Two-days programme at Desalination Plants and Laboratories, 26-28 Nov '98, Defense Laboratories, Jodhpur.
12. National Seminar Irrigation in 2005 Challenges ahead, 1-2 March '99, Irrigation Management and Training Institute, Thuvakudi, Trichy
13. National Seminar on Water Resources Management for Sustainable Development, 12-13 March '99, Water Technology Center, S.V.U. College of Engineering, Tripati
14. National Seminar on Participatory Irrigation Management Concepts, Methods and Strategies, 19-20 March '99, Irrigation Management & Training Institute, Trichy
15. Workshop on Construction Techniques for site supervisors, 16 March '99, BAI-PMC Foundation, Thanjavur
16. Workshop on Total Quality Management, 10-11 Sep '99, Periyar Maniammai College of Tech. For Women, Thanjavur
17. International Symposium on Restoration of Lakes and Wetlands, 27-29 Nov 2000, Indian Institute of Science, Bangalore
18. Short-Term Training programme on Neuro-Fuzzy Applications in Civil Engineering, 11-23 June 2001, Water & Environment Division, Department of Civil Engineering, Regional Engineering College, Warangal, Andra Pradesh.
19. National Symposium on Mathematical Methods and Applications, 22 Dec 2001, Indian Institute of Technology, Madras, Chennai
20. National Seminar on Water Resource Systems Planning and Management, 7-8 March 2002, Annamalai University, Chidambaram. Tamil Nadu.
21. National Conference on Land Care Movement for Food, Water and Livelihood security, 21-23 January 2003 Anna University, Chennai, Tamil Nadu.
22. International Conference on Developments in Hydrology – The Current Status Along with a Colloquium on Water Resources Management, Oberoi Grand, Kolkata, India, 24-25, Oct, 2002.
23. Technical Presentation on Values and Selection of Pipe Fittings by AVK Overseas(Asia) conducted by Malaysian Water Association, Kuala Lumpur, Malaysia, 11 Dec'04.
24. National Conference & Exhibition on Water & Wastewater Management, 12-14 April 2005, Putra World Trade Centre, Kuala Lumpur.
25. 2nd AOGS Annual Meeting 2005, 20 – 24 June 2005, Suntec, Singapore.
26. International Conférence on Environnemental Management, ICEM 2005, 28-30 Oct 2005, Hyderabad, India.
27. One-day seminar on Advances in Water and Wastewater Treatment, UPM, Serdang, Kuala Lumpur, Malaysia, 29, Dec, 2005.
28. Symposium on Asian Winter Monsoon, WINTER MONEX: A QUARTER CENTURY AND BEYOND (WMONEX 25+) organized by Malaysian Meteorological Service and Ministry of Science, Technology & Innovation, Sheraton Imperial hotel, Kuala Lumpur, Malaysia, 4-7 April, 2006.
29. Waste Management Conference & Exhibition (WM 2006) organized by ENSEARCH for better environment and Ministry of Natural Resources and Environment, at hotel Nikko, Kuala Lumpur, 16-17 May'06.

COMPLETED SPONSORED PROJECTS (Till 2008):

Grant	Title of Project	Investigators	Grant	Durati on	Out-come
FRGS (PJP) / UM	Development of database management system (DBMS) of stormwater utility in Klang Using GIS technology.	V. Ramani Bai and Prof. Zamin Jumaat	RM 50K	2007- 2008	To develop database of existing drainage data using GIS / GPS and evaluate relevant features such as screening, construction material and age of structure.
Research University Fund (SPECIAL GRANT) /UM	Data Mining: Discovering hidden parameters in Water Quality Index using Fuzzy logic.	V. Ramani Bai, Prof. Dr. Ghazali Zaban, and En. Abdul Rani Abdullah	RM 50 K	Aug 2007- Dec 2007	To employ data mining approach for discovering hidden parameters in water quality index using Fuzzy logic.
Ministry of Science, Tech. & Innov, (MOSTI) Malaysia.	Study on Seawater intrusion and Evolution of protection strategies for coastal erosion	V. Ramani Bai, Prof. Dr. Faisal Haji Ali and En. Ahmad Jamaluddin Shaaban	RM 193 K	2006- 2008	To simulate the saltwater intrusion in the fresh coastal aquifer zone with an appropriate model using data furnished by the flow model.
Ministry of Science, Tech. & Innov, (MOSTI) Malaysia.	Data Mining on hidden parameters of Water Quality Index for safe drinking water using artificial neural networks and Fuzzy logic systems	V. Ramani Bai, Prof. Dr. Ghazali Shaban, and En. Abdul Rani Abdullah	RM 89 K	2007- 2009	To re-design water quality index (WQI) by DOE of Malaysia and endorsement for its modified concept and implementation.
Ministry of Science, Tech. & Innov, (MOSTI) Malaysia.	Novel and sustainable flood control construction system using Neuro-fuzzy logic.	V. Ramani Bai, Dr. Faridah binti Othman and En. Mohamed Nor bin Mohamed	RM 150 K	2006- 2008	To develop a decision support tools on flood prediction using Artificial Neural Network (ANN) and Neuro-fuzzy logic (NFL) models.

RESEARCH & CONSULTANCY PROJECTS: (COMPLETED)

Title	Source	Period	Co-researcher
Application of system models to planning and management of Water resources of Vaigai Basin	Indian Water Studies, Public Works Department, (PWD) Tamil Nadu.	2000-2002	Prof. Mohan, Prof.Mohanakrishnan
Modernization of Hydraulics lab and Data Acquisition System	All India Council for Technical Education, New Delhi, (AICTE) India	1997-1999	Prof.Dr. N.Ramachandran
An efficient method on assessment of groundwater potential	Civil Engg/ UM	2005-2006	Fadzliza Hanim Zulkifli
Contaminant transport modeling using Visual Modflow	Civil Engg/ UM	2005-2006	Muhamad Habibudin Bin Abdul Manap
Groundwater pumping – A steady state analysis	Civil Engg/ UM	2005-2006	Foo Chee Hung
River water quality management using optimization method.	Civil Engg/ UM	2005-2006	Nik Nurbaini Binti Jamaludin
Reservoir operation using Fuzzy logic control	Civil Engg/ UM	2005-2006	Mohd Suhaimi Bin Mohd Fauzi
Statistical methods for irrigation system water delivery performance evaluation	Civil Engg/ UM	2005-2006	Hasnoor Hana Binti Hishamudin
Discovering Hidden Parameters in Water Quality Index by DOE	Civil Engg/ UM	2006-2007	Munirah Binti Ab Rahman
Study on Seawater Intrusion and Coastal Protection	Civil Engg/ UM	2006-2007	Etty Suhaya Binti Yahaya
Seawater Desalination by Membrane Distillation	Civil Engg/ UM	2006-2007	Low Siok Ling
Design of Detention pond	Civil Engg./UNMC	2009-2010	Final Year B.Engg.

ONGOING RESEARCH PROJECT:

Title	Funded by	Period	Co-researcher
Asian Coastal Ecosystems: An Integrated Database and Information Management System (DIMS) for Assessing impact of Climate change and its Appraisal	Asia Pacific Network, Japan	2009-2011	Prof. Mohan, NITTTR, India, Prof. Pavel Tkalich, NUC, Singapore and Prof. Jon French, UCL, London

SUMMARY OF BIODATA OF 'RAMANI':

Dr. Ramani Bai V. Ph.D (Environmental & Water Resources Engineering): Working as **Associate Professor** in Department of Civil Engineering in University of Nottingham Malaysia Campus since May 2008. She has 17 years of significant service in Environmental and Water resources systems analysis, Hydrology, Water quality and water treatment and in Optimization techniques, Computer modeling, Artificial Intelligence methods as Fuzzy logic, Artificial Neural Networks and Neuro-fuzzy logic systems and Geographical Information systems. She has been involved in various activities as academician, project leader, researcher, thesis examiner, international project reviewer, sole resource person of one-day, two-day seminars etc. in the above mentioned fields in Indian and Malaysian Universities and organizations. She has language proficiency in reading, writing and speaking in Tamil, English and Malay and intermediate level in Telugu.

REFERENCES: The following persons have written letters of recommendations on my behalf.

<p>Prof. Dr. S. Mohan (Relation: Advisor of my Ph.D thesis) Head, Civil Engineering Department, Indian Institute of Technology, Madras, Chennai – 600 036, Tamil Nadu, India Tel: Off: 0091442257 4261 Residence: 91-44 -22576261 Fax: Office:91-44-22574245/ 22570509 Email: prof_smohan@yahoo.com</p>	<p>Dr. Andrew Chan (Relation: Director of Studies / UNMC) Professor, Dept. of Civil Engineering, Faculty of Engineering University of Nottingham Malaysia Campus Jalan Broga 43500 Semenyih, Selangor. Malaysia Tel: 0389248144 Fax: 0389248017 Email: Andy.Chan@nottingham.edu.my</p>
<p>Prof. Dr. Mohamad Rom Tamjis (Relation: Previous Employer in UM) Professor, Dept. of Electrical Engg., Former Dean, Faculty of Engineering, University of Malaya, Kuala Lumpur 50603, Malaysia Tel: 603-7967 5388, Fax: 7967 5388 Email: rommaju@gmail.com</p>	<p>Prof. Dr. KyungOh Lee (Relation: Organized Conference in Malaysia) President of IT Education Center Professor, Computer Information Dept., Sun Moon University, Asan si, Chungnam. 336 708. S. Korea. Tel: 82 41 530 2259 Fax: 530 2876 Email: leeko@sunmoon.ac.kr</p>

DECLARATION

I hereby declare that the information furnished above is true to the best of my knowledge.

Place: Kajang, Malaysia.
Date : 02.06.2010

Signature,
Asso. Prof. Dr. V. Ramani Bai

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