

## INDIAN SOCIETY OF GEOMATICS

### NATIONAL GEOMATICS AWARD - TECHNOLOGY FOR THE YEAR 2007

#### CITATION



*Dr. Parvatham Venkatachalam did her B.Sc. from Madurai University in 1970 and received special distinction in Mathematics. She did her M.Sc. in Mathematics at Indian Institute of Technology, Bombay in 1972 and received the Institute Silver Medal for securing 1st rank. In 1978 she completed her Ph.D. at IIT, Bombay.*

Since 1978, Dr.Venkatachalam has been working in various research positions at the Centre of Studies in Resources Engineering, IIT Bombay. Presently she holds the position of Principal Research Scientist. From the time she joined CSRE, she initiated research work in the area of Geographic Information System and its applications. During 1986 - 1989, she took the lead to establish a district database computer centre collating various spatial data sources in Kheda district, Gujarat. Simultaneously, she developed geometric algorithms for spatial data creation and analysis. She developed a DOS based GIS package GRAM (Geo-Referenced Area Management) with the financial support from DST, Govt. of India and a Windows based GIS software package GRAM++ with the financial support from UNDP and DST. Since then the upgradation of GRAM++ package is being continuously pursued and currently version 1.4.2 has been released. Over 700 copies have been distributed among academia, research institutes, government departments, NGOs and industries in our country.

She undertook several sponsored research projects and consultation projects funded by various national and international organizations like Department of Science and Technology, Ministry of Environment and Forests, Government of Madhya Pradesh, USAID, UNDP etc. Her research areas include spatial data models and structures, algorithms for spatial data analysis and visualization, spatial data indexing, dynamic GIS, multidimensional GIS and GIS software development. She has over 100 technical publications in international and national journals and conference proceedings. She teaches GIS theory and its advances for post graduate students at IIT Bombay and has guided large number of students in their projects. Several training courses have been conducted by her in the area of GIS for the benefit of teaching community and in service personnel. Tailor made courses were conducted for the ministries of water resources, science and technology, environment and forests, defense, department of personnel and training, UNESCO etc. She has delivered several invited lectures in India and abroad. For UNESCO Encyclopedia, she has written a chapter on 'GIS -A Tool for Development' under the section 'Information Technology and Communication Resources for Sustainable Development'. With the support and advice from IIT, Bombay, she has incubated a company Bhugol GIS Pvt. Ltd. in the Society for Innovation and Entrepreneurship at IIT, Bombay. The objective of the company is to promote the use of GIS technology upto rural level and carry out the manpower building programs. A web based GIS tool 'Web Gram Server' has been built maintaining OGC standards. She received Gold Award (First Prize) for the development of E-Tutor for GIS at the CATCON IV contest organized by ISPRS at Tokyo in June 2006. She got National Geospatial Award for Excellence for the year 2007 from Indian Society of Remote Sensing. She is a life member of ISG, ISRS and INCA.

In recognition of her technological contributions in the area of geomatics in terms of research and development, teaching and capacity building and the development of GIS software, the Indian Society of Geomatics confers '**NATIONAL GEOMATICS AWARD FOR TECHNOLOGY FOR THE YEAR 2007** on **Dr. Parvatham Venkatachalam**'.

(S.K. Pathan)  
Secretary

February 04, 2009  
Dehradun

(R.R. Navalgund)  
President