

## **BABAK NEGAHBAN, PH.D.**

### **Areas of Specialization:**

Resource assessment and management, resource optimization, Decision Support Systems (DSS), Geographic Information Systems (GIS), spatial modeling, and computer application training.

### **Experience:**

Senior GIS Analyst/GIS Project Manager, Breedlove, Dennis & Associates, Inc., Winter Park, Florida. 1995 to Present.

- Managed resource information system projects through the use of GIS and supplementary databases.
- Designed and implemented GIS programs for client use.
- Incorporated standard procedures with optimization models as the foundation for DSS.
- Developed MetroScape<sup>®</sup>, a GIS-based land use zoning map management system for the City of Jacksonville's planning department. This system tracks all land use and zoning change applications through the approval process in a transactional GIS database.

Graduate Research Assistant, Agricultural Engineering Department, University of Florida, Gainesville, Florida. 1989 to 1995.

- Developed Lake Okeechobee Agricultural DSS (LOADSS), a GIS-based application combining hydrologic simulation models with economic cost and benefit data as a regional planning tool for the management of the Lake Okeechobee Basin.
- Added optimization capabilities to the LOADSS model to allow for the selection of management practices in the Lake Okeechobee basin to achieve optimal environmental and economic benefits.
- Developed database specifications, hardware and software requirements and financial analysis for the implementation of a computerized equipment maintenance management information system at one of Florida's largest sugarcane (*Saccharum officinarum*) producers.
- Assisted Dr. R.M. Peart in teaching Agricultural Operations and Systems (AOM) 4932 in the fall of 1989 by presenting lectures on the following topics: introduction to computer hardware, operating systems, word processors, spreadsheets, introduction to database analysis and applications, introduction to linear programming and optimization.

Assistant Professor in Agricultural Engineering, University of Florida/University Center of Dschang, Dschang, Cameroon. 1986 to 1988.

- Taught courses in agricultural engineering and computer science.
- Overlooked the growth and development of the newly formed Agricultural Engineering Department in teaching and research.

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BREEDLOVE, DENNIS & ASSOCIATES, INC.  
330 W. CANTON AVENUE / WINTER PARK, FLORIDA 32789 / (407) 677-1882 / FAX (407) 657-7008

- Technical member of Computer and Information Service Group.
- Managed and supervised hardware and software purchases.
- Maintained and repaired existing hardware.
- Trained new personnel.
- Provided faculty support for research data analysis.

Graduate Research Assistant, Agricultural Engineering Department, University of Florida, Gainesville, Florida. 1984 to 1986.

- Developed an expert system for the selection of tractors based on optimum size and capabilities.

**Education:**

Ph.D. University of Florida, Gainesville, Florida, 1995. Agricultural Engineering (AOM).  
M.S. University of Florida, Gainesville, Florida, 1986. Agricultural Engineering (AOM).  
B.S. Iowa State University, Ames, Iowa, 1984. Agricultural Mechanization.

**Awards/Achievements:**

Gubernatorial Appointment, State of Florida Geographic Information Advisory Council.

First Place GIS Application, ARC Macro Language Competition, Environmental Systems Research Institute, Inc. (ESRI). 1994 International ESRI User Conference.

Graduate Student Scholarship, National Center for Geographic Information Analysis. Second International Conference/Workshop on GIS and Environmental Modeling.

Microsoft Windows NT 4.0 Administration certification.

**Presentations:**

*GIS and Modeling for Agricultural Systems Analysis.* [DATE]. Oral presentation (workshop speaker) for the North American Symposium, Association for Farming Systems Research-Extension. University of Florida, Gainesville, Florida.

Lake Okeechobee Agricultural DSS. [DATE]. Oral presentation (invited speaker) for the Symposium on *GIS Applications in Natural Resource Management and Conservation.* Society of American Foresters-School of Forest Resources and Conservation.

**Publications:**

**Negahban, B.**, C.B. Moss, J.W. Jones, J. Zhang, W.D. Boggess, K.L. Campbell. 1994. Optimal Field Management for Regional Water Quality Planning. International Winter Meeting of the American Society of Agricultural Engineers. ASAE Paper No. 94-3553, American Society of Agricultural Engineers, St. Joseph, Michigan.

**Negahban, B.**, G. Kiker, K. Campbell, J. Jones, W. Boggess, C. Fonyo, E. Flaig. 1993. GIS-Based Hydrologic Modeling for Dairy Runoff Phosphorous Management. *Management and Landscape Modification for Environmental Protection*. American Society of Agricultural Engineers, St. Joseph, Michigan.

**Negahban, B.**, C. Fonyo, W. Boggess, J. Jones, K. Campbell, G. Kiker, E. Hamouda, E. Flaig, and H. Lal. 1993. A GIS-Based Decision Support System for Regional Environmental Planning. *Effective Management of Natural Resources*. American Society of Agricultural Engineers, St. Joseph, Michigan.

Lal, H., C. Fonyo, **B. Negahban**, J.W. Jones, W.G. Boggess, G.A. Kiker, and K.L. Campbell. 1991. Lake Okeechobee Agricultural Decision Support System (LOADSS). ASAE Paper No. 91-2623, American Society of Agricultural Engineers, St. Joseph, Michigan.

**Negahban, B.** W.D. Shoup, J.W. Mishoe. 1990. Information Retrieval and Decision System for Sugarcane Machinery. ASAE Paper No. FL-90-110, American Society of Agricultural Engineers, St. Joseph, Michigan.

**Negahban, B.**, R.C. Fluck, W.D. Shoup. 1988. Selection of Lawn and Garden Tractors Using an Expert System. *Applied Engineering Agriculture*. Vol. 4(3): September 1988, American Society of Agricultural Engineers, St. Joseph, Michigan.