

Shin Daehyok



Position: Ph. D. Candidate,
Terrestrial Hydrologic Ecosystem Modelers
Department of Geography,
University of North Carolina-Chapel Hill

Education: **Seoul National University, Seoul, Korea (ROK)**

- Master Environmental Planning 1995
- B.S. Control and Measurement 1992

Employment: **Researcher, Electronic & Telecommunication Research Institute**
June 1997 – June 1999, GIS Team

- Programming an operational satellite image processing software in a project, "Development of Satellite Image Processing and 3-D Surface Analysis Software"
- Evaluating the accuracy of landcover maps derived from satellite images in a project, "Development of Techniques for Remote Image Information Analysis in the Image Processing Department"
- Teaching remote sensing skills in a project, "National GIS Education Project"

Researcher, System Engineering Research Institute
March 1995 – June 1997, Global Environment Information Research Team

- Assessing the possibility of TOPMODEL as a hydrologic model for a large watershed in a project, "GIS Development for Environmental Information Management"

Major Study:

Impact of Monsoon Climate on Water Resource in Asia

- Transition of hydrological, physiochemical, and biological behaviors of a reservoir drainage basin in response to annual cycle of monsoon climate.
- Effective monitoring, modeling, and management under monsoon climate

Integrated Water Resource Modeling

- Integrating hydrological models and water quality models
- Integrating watershed models and water body models.
- Development of water resource problem solving environment
- Application of remote sensing and geographic information system for water resource modeling and management

Special skills:

- Familiar with spatial data analysis and remote sensed image processing
- Extensive programming knowledge in MatLab, Python, Fortran, C, C++, Java
- Proficient with scientific programming and object-oriented design

Publication:

- Daehyok Shin, Bomchul Kim, and Lawrence E. Band, *Impact of summer monsoon on a reservoir in East Asia*, Proceedings of AWRA's 2002 Annual Water Resources Conference, p. 245, 2002.
- *Spatial Variability of conductivity as applied to distributed parameter infiltration models*, Journal of the American Water Resources Association, 34(3):545-558, 1998.
- *Accuracy Evaluation of Landuse Map from LANDSAT TM in Coast Region of Korean Yellow Sea*, Symposium of Korean Remote Sensing Society, 1998.
- *Development of Multithread Remote Sensing Image Processing S/W*, Symposium of Korean Remote Sensing Society, 1997.
- *Distributed-parameter hydrologic model in R2-A System in "Development of GIS DB and Application S/W for the Water Resource Management (II)"*, 1996.

Awards:

- Outstanding Oral Presentation Award, AWRA Annual Water Resources Conference, Philadelphia, 2002
- Best Thesis Award, Environmental Planning Dept., Environmental Management Major, Seoul National University, 1995

Reference: Larry Band,
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Contact

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