Vena Pearl BOÑGOLAN, Ph.D.
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Education

Ph.D. in Applied Mathematics, Illinois Institute of Technology, Chicago, IL   July 2005

M.S. Mathematics, 1987, University of Illinois at Urbana-Champaign as a Fulbright-Hays Fellow

B.S. Applied Mathematics, *cum laude*, 1980, University of the Philippines at Los Banos as a UP-National Science Development Board (Intaps) Scholar

Competencies

Research: Currently supervising a Ph.D. student on agent-based modeling of visible-light photocatalytic hydrogen production. With MS students: cellular automata modeling of landslides via an ultradiscretization of the Burger's Equation; storm surge early warning systems using stochastic Navier-Stokes and stochastic terms in the boundary conditions. With undergraduates, we model post-typhoon regeneration of mangroves.

Currently working on an EIDR-funded project on the exogenomics of the conus shell (protein folding).

Teaching: graduate computer science, environmental and energy engineering courses in modeling, dynamical systems and computational differential equations (ODEs and PDEs).

Extension/Service:

Member, Steering Group on Natural Hazards and Risk
ICSU Roap (International Council for Science, Regional Office for Asia and the Pacific)
(since September, 2016)

Co-Secretary, Interdisciplinary Geosciences Section
AOGS (Asia Oceania Geosciences Society)
(2016-2017)

Member, Committee on the Environmental Engineering Program
Contributor, Committee on the Energy Engineering Program
College of Engineering, UP Diliman

Conference Organization: Director of the "Winter School on Modeling, Separation and Purification", UP Diliman, Jan 9-13, 2017.