

Brief CV – Gour-Tsyh Yeh

SUMMARY

Gour-Tsyh (George) Yeh received his Ph.D. in hydrology from Cornell University in 1969 and M. S. in hydraulics from Syracuse University in 1967. His areas of specialty are hydrology, environmental fluid mechanics, hydraulics, and water resources. Dr. Yeh has extensive experience in multidisciplinary research, teaching, professional services, and coordination skills. He specializes in the mathematical formulation of complex physical transport and biogeochemical reactions and their computer implementations. His current research focuses on physics-based first principle approaches of watershed modeling, coupled surface and subsurface flow and transport processes, geochemical kinetics, biodegradation and micro-organism/geochemical interactions, geochemical equilibrium modelling, multi-phase flow and transport in both fractured and porous media, development of innovative numerical algorithms, and computational fluid dynamics. He has been actively promoting scientific knowledge exchange, crusading for technology transfer of sponsored research, and conducting workshops and short courses. He is a consultant to IAEA, United Nations. Achievements in his career include:

- developed over 130 physics-based process-level computational models: many of which has been adopted as the *de facto* standard by academic communities, federal agencies, and industries;
- achieved seminal advances in computational-models development and mathematical formulation of reactive transport
- accomplished the development of subsurface flow and contaminant transport models that have been used worldwide for waste management and remediation for over 25,000 times;
- achieved the development of a general analytical transport model that has been endorsed as a protocol to assess the severity of groundwater contamination in “Waste Management Guidelines” by more than 25 out of 50 States in United States;
- served as review panelists for the US EPA STAR program for five times and as a member of the Florida governor’s technical advisory and review committee (TARC) on TMDL;
- conducted more than 50 interdisciplinary research projects with a total funding of over \$17 Millions;
- published two books and more than 400 papers, technical reports, and conference proceedings and abstracts;
- completed over 40 consulting jobs for over 30 clients nationally and internationally;
- offered short courses, seminars, and workshops many times on subsurface flow and reactive chemical transport;
- organized and chaired more than 20 important national and international symposia;
- gave more than 60 invited speeches nationally and internationally; and
- advised and supervised over 50 Ph.D. and M.S. students at Penn State and UCF in 21 years.

Honors and Awards

1. National Academy NRC Associateship
2. Martin Marietta Publication Award
3. Presidential PIP (Project Improvement Process) Award
4. National Academy NRC Senior Research Associateship
5. PSES Outstanding Research Award
6. Distinguished Researcher Award, College of Engineering
7. Graduate Teaching Award, Dept. of Civil, Environmental, and Construction Engineering