

Raudel Sanchez, Ph.D.



Raudel Sanchez
Project Manager

Ph.D.
University of Southern
California, Los Angeles,
Chemical Engineering, 2008

B.S.
California State University Long
Beach, Chemical Engineering,
2002

Focused Experience

- Project Metrics and Forecasting
- Data Analysis
- Data Mining
- Project Cost Analysis
- Remedial solutions
- Landfill Gas Modeling
- Artificial Neural Networks Applications
- Site conceptual models

Skills

- Landfill science and engineering
- Degrading waste characteristics
- Engineering and logistical support on major Superfund EPC projects
- Hazardous waste site assessment and numerical simulation
- Site conceptual models (SCMs)
- Information and data visualization
- Landfill gas migration assessment and modeling
- Design of landfill gas and liquids management systems
- Remedy construction logistics
- Compliance
- Site knowledge assessment and data gap analysis
- Data mining and re-use via such techniques as GIS
- Preparation of effective and audience accessible technical reports and presentations
- Project advocacy to agencies and public
- Project presentations in public forums

Representative Experience



Operating Industries Inc. (OII) Superfund Site, Monterey Park, California

Currently provides project engineering support to the Project Manager at this 190 Acre Superfund Site where PNL continues to work with New Cure Inc. (NCI) to manage operations and development.

Confidential Client

Site data interpretation and conceptual model formulation for allocation negotiations.

Employment History

2008-Present **Project Navigator, Ltd., Brea, CA** *Project Manager*

2003-2008 **University of Southern California, Los Angeles, CA** *Research Assistant*

- Developed gas and liquids migration software for municipal solid waste landfills
- Use genetic algorithms to optimize complex functions
- Use Super Computers to perform landfill simulations involving two-phase flow
- Use Artificial Neural Networks to forecast the future conditions of CVX Sites
- Chevron-USC-Project Navigator, Ltd., Digital Site and Visualization Project

Publications & Conferences

Sanchez R, Mehrdad, Tsotsis T, Sahimi M., *Computer Simulation of Gas Generation and Transport in Landfills II: Dynamic Conditions*, Chemical Engineering Science (CES) Vol. 61 (2006) 4750-4761

Sanchez R, Mehrdad, Tsotsis T, Sahimi M., *Computer Simulation of Gas Generation and Transport in Landfills III: Development of Landfills' Optimal Mode*, Chemical Engineering Science, Vol. 62 (2007) 6378-6390

Development of Optimal Model of a Landfill Using Massively-Parallel Computers
AIChE Annual Meeting Nov. 2004 Austin, Texas

Modeling Landfills as Large-Scale Bioreactors. A Tool for Predicting Landfill Gas Production and Addressing Safety Issues
AIChE Annual Meeting Nov. 2007 Salt Lake City, Utah