

Kathyayani Shobhna Kondepudi

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EDUCATION

Massachusetts Institute of Technology, Cambridge, MA

June 2012

M.Eng in Environmental and Water Quality Engineering, GPA 4.7/5.0

Osmania University, Hyderabad, India

June 2011

B.E. in Civil Engineering, GPA 8.2/10.0

Honors: *Awarded Gold Medal for “Best Student in Civil Engineering, 2011” for academic performance in GIS*

Course work: Fluid Mechanics, Groundwater Hydrology, Water and Wastewater Treatment, Water Resources Systems, Fate and Transport of Chemicals, Remediation Technology, Surveying, Cost Estimation, Geology, Soil Mechanics, Transportation Engineering, Structural Design, Economics and Accounting, and Project Management

EXPERIENCE

Technical Consultant

July 12 – Present

Safe Water Network, New York, NY

- Designed pumps and pipelines for slow sand filtration systems; created MS® Visio drawings for final layouts
- Preliminary design of solar energy systems conducted, to replace conventional powered systems in rural Ghana
- Performed cost-benefit analysis of photovoltaic systems for community-scale drinking water treatment plants
- Bill of quantities developed for slow sand filtration systems and mechanization of borehole systems
- Independent research conducted to identify an effective low-cost disinfection system in developing countries
- Interacted with product consultants and local representatives on an individual basis to obtain detailed quotations

Research: Analysis of the Efficacy of a Constructed Wetland

Sep 11 – June 12

Massachusetts Institute of Technology (MIT), Cambridge, MA | *Nanyang Technological University (NTU)*, Singapore

- Designed and implemented stormwater field sampling program in Singapore
- Conducted bacterial analysis for indicator bacteria at *NTU*, Singapore and analyzed samples for human specific 16S rRNA bacteroides marker using qPCR at the Thompson Lab, *MIT*
- Extensive statistical analysis performed to determine correlations between indicator bacteria and HF marker
- Thesis and research proposals show-cased excellent research and analytical writing skills
- Provided recommendations to the *Public Utilities Board* of Singapore for implementation of future research

Low-Cost Drinking Water Treatment Project Leader

Sep 10 – May 11

Vasavi College of Engineering, Hyderabad, India

- Field sampling from a surface water source and laboratory analysis conducted in order to get the water quality data for physical, chemical, and bacteriological parameters
- Designed a small-scale drinking water treatment plant for a residential community consisting of 108 houses
- Optimized capital and recurring costs by eliminating one treatment process and manipulating other processes
- Wrote the final report for the design of community's water supply system and drafted final plan in AutoCAD

Engineering and Consulting Intern

Sep 07 – Aug 10

K Panduranga Mohan: Civil Engineer & Registered Valuer approved by CBDT, Ministry of Finance, Govt of India

- Site inspection conducted and estimated the cost of industrial, commercial, and residential buildings, considering the prevailing market rates
- Co- wrote reports to banks for financing urban, rural, and industrial infrastructure
- Drafted plans, cross-sections and elevations of 36 residential buildings using AutoCAD Civil 3D

Infrastructure Intern

June 09 – June 09

IVRCL Infrastructures and Projects Ltd., Hyderabad, India

- Computed pump and pipeline design parameters for a drinking water supply system at a university campus
- Quality control tests conducted and verified compliance with national standards and specifications

SKILLS

- **Software:** AutoCAD Civil 3D, USGS MODFLOW (Groundwater flow modeling), ArcGIS(basic), MS Visio, Word, Excel, PowerPoint, BIOCHLOR, MATLAB(basic), GABI (Life cycle assessment), C, and C++