

Summary

Experienced and licensed Professional Engineer serving as Senior Geotechnical Engineer at Resource International, Inc., Indianapolis, Indiana. Possess strong communication with oral and written, analytical and problem-solving skills. Well proficient with Foundation Analysis and Design, Slope Stability, Settlement, Seepage/Flow analysis, Field Inspection, and Geotechnical Instrumentation and Monitoring. Organized and detailed with an ability to work independently, as well as in a team with management skills. Possess extensive construction and design experience. Registered in the States of Missouri and Indiana, and in process for the State of Ohio.

Relevant Professional Experience

Resource International Inc., Indianapolis, IN - 46240

February 2018 to Present (2 Years)

Project Manager / Senior Engineer - Geotechnical Services

Major Geotechnical Consulting Service Experience

- Performed analysis and design recommendations for over 200 on-call projects related to Pavement Improvements in the State of Indiana as per the current INDOT Geotechnical Manual.
- Performed Geotechnical analysis and design of earth retaining structures, roadway embankment and bridge foundations, at Franklin County, Columbus, OH, as per ODOT and AASHTO LRFD norms.
- Performed Geo-hazard analysis and rock slope repair studies in Ross County, Ohio, as per ODOT manuals.
- Performed management of the field activities for IndyGo Purple Line Improvements in the Marion County, Indiana.
- Currently managing the I-465 and I-69 Section 6.5 Reconfiguration Project in Indianapolis, Indiana.

S.A.M. Consultants, Inc., Lombard, IL-60148

June 2012 to January 2018 (5 Years 8 Months)

Geotechnical Engineer / Assistant Project Quality Manager

Major Heavy Construction Service Experience

- **Field Geotechnical Engineer / Project Manager (June 2012 to November 2014)** **Client** – Turner-Concrete Structures-Lindahl-Triventre and Turner-Acura-Lindahl-Triventre / O'Hare Modernization Program (OMP), City of Chicago: South Airfield Runway 10R-28L Site Preparation and Paving, Lighting and Signing at O'Hare International Airport, Chicago, Illinois. Job responsibilities involved subgrade / sub-base evaluation, backfill material examination, earthwork management including lime modification procedures, monitoring of Geotechnical Instrumentations including the Deep and Surface Settlement Plates, Pore Water Pressures, Inclinedometers and Convergence Points, lime stabilization for the Runway and Taxiway subgrade, and prepared subgrade evaluation for as per FAA regulations.
- **Assistant Quality Control Manager / Geotechnical Engineer (September 2015 to January 2018)** **Client** - Austin- Power Partners / O'Hare Modernization Program (OMP), City of Chicago: Joint-Use Consolidated Rental Car/Parking Facility and ATS Station at O'Hare International Airport, Chicago, Illinois. Job responsibilities involved backfill material examination, earthwork management including lime modification for embankment construction, inspection of drilled straight and belled caissons as per FAA and ASTM specifications.
- **Quality Representative / Geotechnical Engineer (May 2016 to February 2017)** **Client** – Lindahl Brothers Inc. / IL Tollway: Elgin O'Hare Western Access (EOWA) EOWA Tollway Detention Pond, Pump Station and Advanced Earthwork Construction at Franklin Park, Illinois. Job responsibilities involved backfill material examination, earthwork management including lime modification for embankment construction, inspection of as per IDOT / IL Tollway specifications.
- **Geotechnical Engineer / Quality Manager (July 2017 to January 2018)** **Client** – American Airlines, City of Chicago: American Airlines Hangar II Replacement and GEM Building at O'Hare International Airport, Chicago, Illinois. Job responsibilities involved construction inspection, managing quality control team, overseeing pile driving inspection, mass concrete placement and temperature monitoring as per ACI specifications, general civil work quality control and quality assurance as per FAA regulations.

Major Geotechnical Engineering Consulting Experience

- **Geotechnical Engineer Consultant (November 2013 to June 2014)** **Client** - URS Corporation / AECOM: Elgin O'Hare Western Access (EOWA) Tollway, Arlington Heights Road to Lively Boulevard, DuPage County, Illinois. Job responsibilities involved Detailed Geotechnical Investigation (Phase II) including SGR preparation as per IDOT regulations for 1.7 miles stretch of new tollway including four bridge structures and tollway road embankment. Performed slope stability analysis, settlement calculations/analysis, design of deep foundations for structural elements, and QA/QC documentation.
- **Geotechnical Engineer Consultant (August 2016 to January 2018)** **Client** – Burns & McDonnell / United Airlines: New Hangar 5/5A Construction, Lot C Investigation, GSE Building and Associated Foundation Analysis and Design, at O'Hare International Airport, Chicago, Illinois. Job responsibilities involved detailed Geotechnical Investigation

(Phase II) including SGR preparation as per FAA regulations for the structures and apron embankment. Performed slope stability analysis, settlement analysis, shallow and deep design of foundations.

- **Geotechnical Engineer Consultant (September 2016 to January 2018)** **Client** – Ghafari Associates / American Airlines: Replacement of Hangar II and Associated Apron Evaluation and Foundation Design, at O'Hare International Airport, Chicago, Illinois. Job responsibilities involved Detailed Geotechnical Investigation (Phase II) including SGR preparation as per FAA regulations for the structures and apron embankment. Performed slope stability analysis, settlement calculations/analysis, design of deep foundations for structural elements.

Laboratory Manager

- Developed and installed advanced soil laboratory including One-Dimensional Consolidation Tests, Triaxial CU, CD and UU Tests, Gyrotory Compactor for Bituminous material. Programmed laboratory to be included and approve advanced soil tests in AMRL test methods.
- Participated and tested construction materials in AMRL and CCRL Proficiency chain with rankings between 4 & 5.

University of Illinois at Chicago, IL-60607

August 2008 to May 2012 (3 Years 10 Months)

Graduate Research/Teaching Assistant

Geotechnical Engineering

- Performed *geotechnical laboratory testing on soils* as per ASTM standards. Performed *geotechnical design of foundations and slope stability analysis* for the excavation of several projects,
- Assisted the Department of Civil & Materials Engineering with the following courses – Soil Mechanics, Foundation Analysis and Design, and Mechanics of Materials

Geoenvironmental Engineering

Ph.D. Dissertation

- Optimization of Leachate Recirculation Systems in Bioreactor Landfill in *unsaturated municipal solid waste (MSW) implementing two-phase flow modeling*
 - Developed *design charts* to estimate moisture distribution with different leachate recirculation systems,
 - Used *reliability based analysis* to estimate moisture distribution parameters at Orchard Hills Bioreactor Landfill, Davis Junction, Illinois, USA,
 - Conducted parametric evaluation of slope stability of bioreactor landfill,
 - Published twelve (12) International Journal Papers and fifteen (15) International Conference Papers possess over 400 citations across the World.

Indian Register of Shipping, Bangalore, India

September 2007 to July 2008 (10 Months)

Senior Surveyor / Quality Control, Area Manager for North Karnataka State

- Audited the irrigation projects and involving construction of head and branch water channel to meet the Indian Standards in field awarded by Government of Karnataka State in India.
- Supervised and audited the foundation requirements for wind turbines awarded by Vestas Wind Systems in Karnataka State to meet the Indian Standards.

B.V.B. College of Engineering and Technology, Hubli, India

May 2004 to July 2005 (1 Year 3 Months)

Engineering Trainee

- Perform field inspection for construction of a residential building. Main responsibilities involved monitoring Soil-Lime Stabilization method for expansive soil as a part of Bachelor's Degree Final Year Project to gain field experience.

Education

- Doctor of Philosophy (**Ph. D.**) Civil Engineering, University of Illinois at Chicago, May 2012
- Master of Technology (**M. Tech.**) Civil Engineering, MNNIT, Allahabad, India, June 2007
- Bachelor of Engineering (**B.E.**) Civil Engineering, Visvesvarayah University, India, May 2004

Honors and Affiliations

- Member, American Society of Civil Engineers (ASCE), and Geo-Institute (GI).
- American Society of Civil Engineers (ASCE): Illinois Section - 2011 Top Graduate Student Award
- Best Theoretical Oriented Paper Award for "Prediction of Long-Term Municipal Solid Waste Landfill Settlement Using Constitutive Model", EWRI-ASCE, 2011.
- 2018 Wesley W. Horner Award for the paper, "Modeling Coupled Hydromechanical Behavior of Landfilled Waste in Bioreactor Landfills" published in the January 2017 issue of Journal of Hazardous, Toxic, and Radioactive Waste."

Technical Skills:

- Civil platform: FLAC-2D, SLIDE, SETTLE3D, FoSSA, gINT, ALLPILE, LPILE and AutoCAD
- Miscellaneous: INDOT SiteManager, Google Earth, Sigma Plot, Microsoft Office, PC Maintenance & Troubleshooting.