



Lince Philip

Project Engineer

Education

BS, Mechanical Engineering,
University of North Florida,
2006

Year Joined AMPHION

2016

Years of Experience

Since 2006

Professional Registrations

Professional Engineer – North
Carolina, Florida, Connecticut

Additional Certifications

NDT Level II:
Magnetic Particle

Additional Language

Proficiency
Hindi

Mr. Lince Philip has been a Project Engineer with Amphion Analytical Engineering, P.A. since 2016. He has experience in Solidworks, Finite Element Analysis (FEA), Fatigue Analysis, Design of Mechanical Components, and Fluid Flow analysis.

Mr. Philip is a licensed, professional engineer in North Carolina, Florida, and Connecticut. He is also certified as an ASNT Level II Technician in magnetic particle testing (MT) methods.

Project Engineer at AMPHION (2016 – Present)

Mechanical Integrity

Performed mechanical integrity inspections on storage tanks, process vessels, and pressure vessels at numerous facilities covering a wide range of industries. The industries covered include, but are not limited to, the tire and rubber industry, various chemical production industries, the paper industry, and soy bean processing industry. These inspections utilized various nondestructive testing (NDT) methods and failure analysis.

Finite Element Analysis (FEA) and Fatigue Analysis

Responsible for various projects involving modelling and FEA utilizing Solidworks of different machinery parts. These FEAs are for improving existing designs or determining the cause of failure in parts. For parts under cyclical loading, fatigue analysis is performed based on the stresses from the FEA.

Strain Gauging Services

Planned and participated in projects involving the installation of strain gages, set-up of the data acquisition system, and collecting real time strain data. After the completion of the data collection, analyzed the data for the stress and fatigue analyses. This data was then either used to design an improved system or was compared with Finite Element Analysis (FEA) stress results to ascertain their validity.

Mechanical Design Engineer (2011 – 2016)

Near-Shore Survey Vehicle

Lead engineer for a 350K USD project to construct a remote controlled beach survey vehicle. Designed the vehicle based on existing company patent. Developed the mechanical, hydraulic, electrical and control systems by collaborating with various vendors. Utilized SolidWorks to model and create assembly drawings for the vehicle. Responsible for budgeting, scheduling and procurement of all parts for the vehicle. Project currently in trial and testing phase.

Spill Barge

Assisted with a 1 million USD conversion of an existing barge to pump off slurry for land reclamation. Helped with design and construction of the barge to get it ready in four months. Project involved selecting and installing new pipes and valves for slurry flow; winches and sheaves to control positioning of the barge. Supervised the assembly of the barge to get the construction completed on time.

Structural Analysis of Ship's Crane Requiring ABS Approval

Collaborated with Naval Architects in analysis and solution to add additional support to ship's crane requiring ABS (American Bureau of Shipping) approval. Modeled the crane and surrounding structures in SolidWorks. Used FEA analysis via SolidWorks Simulation to investigate high stress areas on added structures at max load rating. Submitted the stress study to the Naval Architects to use in the final report for ABS approval. ABS approved the additional support structures and the crane was commissioned into service.

Production Engineer (2009 – 2011)

Analyzed and calculated slurry flow for new dredging project estimates. Wrote production reports that assisted management with equipment upgrades. Analyzed production on past projects to optimize and support future ventures. Assisted in writing a pump program for project estimation and tracking.

Field Engineer (2006 – 2009)

Responsible for dredge support and efficient running of construction projects. Designed and drafted components for the dredge using AutoCAD. Used hydrographic survey software to draft and compute dredge volumes on projects. Prepared project quality control reports and acted as a liaison between management and clients (mostly U.S Army Corps of Engineers). Documented upgrades and/or repairs to vessels during shipyard periods. Helped the Chief Estimator with preparing project estimates and schedules.

Mechanical Engineering Co-op (2005-2006)

Reported directly to the Engineering Superintendent. Responsible for supervising contractor related projects. Analyzed and calculated fluid flow in a paper manufacturing environment. Drafted mechanical components for fabrication and machining. Designed steel and piping layouts using AutoCAD.