LUIS VARGAS ROJAS (BSc./MSc./PMP)

PROJECT MANAGER – OPERATIONS MANAGER - C&A SENIOR ENGINEER

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Accomplished Project Management professional and I&C Senior Engineer with significant experience that spans over 2 decades primarily within the energy sector. Recently earned Google Data Analytics certificate. Supporting APM (Association for Project Management) in the redesigning of their project management competence framework. Result-orientated project team leader with 20y of experience covering project and product management including developing, implementing, and supporting complex infrastructures for fast growing startups. Successful experience developing process control system technologies, crafting digital strategies for process automation, information technology, integrating optimization solutions, and supporting advanced analytics applications. Vast knowledge of Process Safety Management including Change Management, Process Hazard Analysis, Pre-Start-up Safety Review, and Root Cause Analysis. Expertise in various numerical methods, statistics, machine learning, data analytics, and optimization methods.

# AREAS OF EXPERTISE:

Team Leadership | Strategic Planning & Forecasting | Project Management | Interface Management | PMO | Installation & Commissioning | Stakeholder Management | Operations Management | Operational Excellence | Agile Leadership | Scrum | Engineering Management | Instrumentation & Control | Smart Plant INTOOLS | SAP-PM | Performance Management | Requirements Gathering | Process Automation | QA/QC | ISA, API, NEMA, IEC, Shell DEPs Standards | Contract Management

FAT/SAT | MQTT | Modbus | Alarm Management | System Architecture |

# RELEVANT SKILLS:

Tools/Languages: Spreadsheets, SQL Data Loading, Tableau, R (RStudio), BigQuery

Data Management: Data Collection, Data Cleaning, Data Reporting, Data Storage, Data Analysis, Data Visualization, Data Ethics Software Platforms: Microsoft 365 Suite, Google Workspace, Slack, Zoom, Kaggle, Loom

Strengths: Project Management, Team Leadership, Strategic Planning & Forecasting, Interface Management, PMO, Stakeholder Management, Operations Management, Operational Excellence, Agile Leadership, Scrum, Engineering Management

# DATA ANALYSIS PROJECTS

Predictive Well Failure Avoidance Portal 07/2021

* Led a multidisciplinary team of 10 specialists: data scientists, business analysts and operations & maintenance specialists to develop an ML application(software development), giving end users an interactive dashboard, that monitored sucker rod pump oil wells and identified electrical and mechanical failures.
* Effectively improved failures lead indicator by 5%, leading to ~ USD 2.5 million in efficiencies and deferment reduction.

Data Analytics Capstone Project • Google Data Analytics Professional Certificate 09/2023

* Imported 12 excel datasheets with millions of entries into R, then used tidyr package to clean the datasets and prepare them for analysis.
* Joined all of the datasets together, created subsets of the data, and converted each attribute to the proper data type before performing analysis to find differences between members and casual customers.
* Developed visuals using the ggplot2 package to display the analysis results and provide meaningful conclusions for stakeholders to implement.

# PROFESSIONAL BACKGROUND:

### 2022‐ Present: SENSIA GLOBAL, a joint venture between Rockwell Automation and Schlumberger, HOUSTON, TEXAS

### North America Digital Solutions Manager

Responsible for driving and managing the direct sales engagements and sales between SENSIA Digital Alliance Solutions and our key alliance partners and clients. Some of my responsibilities are:

* + Leading North America Sales Solutions team, multidisciplinary team (Sensia, SLB, Cognite) to define/develop/prepare technical solutions meeting end customer requirements to ensure successful execution aiming to meet target sales equivalent to US$28MM/annually.
	+ Manage direct sales engagements and sales among SENSIA Digital Alliance solutions and key alliance partners and clients.
	+ Get information about the market and current trends, do/get surveys, involve other subject matter experts and analyze new technology plans and timelines, collaborating with the sales operations team to integrate with Salesforce.
	+ Implement the scope for comprehensive cross-functional products development within process automation, artificial lift automation which include areas such as Energy Management Systems, Wells Surveillance systems, SCADA enhanced workflows, Cloud/On Prem solutions, Artificial Lift Controllers, and other relevant programs.
	+ Collaborate extensively with diverse disciplines/departments and cross-functional teams to articulate and fulfill comprehensive process automation products requirement documents, technical specifications, etc.
	+ Work along with Product Managers and guide them through the entire product life cycle process, from conceptualization to development and launch, overseeing scope, schedule, cost, and resource management by leveraging established processes.
	+ Analyze new technology plans/timelines and incorporate them into business/sales team plans for relevant customers and areas in the artificial lift portfolio, specifically low flow solutions: Sucker Rod Pumps (SRP) and Progressing Cavity Pumps (PCP).
	+ Develop plans for new technology introduction to key clients and coordinate with Digital Alliances Manager.
	+ Support and plan resources for positioning key and strategic Product Line bids in the artificial lift low flow solutions.

## 2010‐2021: PETROLEUM DEVELOPMENT OF OMAN, MUSCAT, OMAN

**FIELD AUTOMATION & MEASUREMENT SUPERVISOR (09/2018‐09/2021)**

* + Implemented project management methodologies such as Scrum and Agile to ensure timely delivery and successful completion of projects. One of those was a predictive analytics solution – on a trial basis - capable of detecting abnormal conditions in beam pump wells which were based on machine learning. In the 3-months run, oil recovery was 1600 bbls *(100 wells‐population).*
	+ Promoted to Field Automation & Measurement Supervisor reporting directly to the Delivery Team Leader and charged with maintaining responsibility for a multidisciplinary team comprised of 20 direct reports with responsibilities for wells maintenance jobs, liquid pipelines, leak detection systems, ongoing support, crude oil testing units, water measurement, enhanced water cut/gross measurement trials.
	+ Led Field Operations and Technical Services team. In charge of development programs, training, mentoring, and developing top-performing teams and elevating their automation technology skills.
	+ Collaborated closely with the Operations team representative to validate production data (flow assurance) across the asset was consistent and accurate, enhancing data quality and integrity setting the operational KPIs to meet operational targets and guide operations team.
	+ Performed root cause analysis and led remediation/solution implementation by identifying and delivering comprehensive technical support, leading continuous improvement, and optimization for a vast network of 3,000 wells spanning a 40- miles territory.
	+ Ensured that all required Process Safety Information is delivered prior to start up and lead the Pre-Start Up Safety Inspections at ~95% of completion. Coordinated plant start up assistance as required. Coordinated EHS practices in the Field Automation and Production Measurement team.
	+ Maintained and led automation systems troubleshooting, including Allen Bradley PLC (PLC Programming), RTU, Solar-powered devices, serial communication devices and SCADA systems.
	+ Selected to lead technology trials with new net oil computers and wells smart progressive cavity pump (PCP) controllers aiming to solve operational issues related to sand control in South of Oman area.

## SENIOR REAL‐TIME OPERATIONS ENGINEER (08/2010‐08/2018)

* + Earned the Shell Upstream Impact Awards 2016 in recognition of Beam Lift Auto-Delivery Evolution application deployment in the South Thermal field which protected units and saved wells from pump failures, enhanced HSE and travel time for operations, reduced operator time for actual optimization by 45 minutes, and accelerated peak oil in the CSS production cycle.
	+ Directed and oversaw all aspects of daily operations engineering activities in the real time data environment, encompassing scope definition (SOW), planning, execution, assurance, acceptance testing, close out, documentation and application of lessons learned for different projects within real-time operations team.
	+ Recognized for playing a key role in facilitating developments in PDO’s South Thermal portfolio by serving as Project Interface and Control and Automation Engineering support to Amal Steam project team. Key Data Acquisition apps were: Wonderware Intouch SCADA, PI Historian, EC (data repository) and Weatherford LOWIS™ - wells surveillance system.
	+ Involved in the HMI graphics development, software requirements capture, database, alarm rationalization, testing, and commissioning of the major Control Center project: South Oman INTOUCH HMI SCADA (30 gathering stations, 2 booster stations, solar power plant facilities, water injection facilities and 50+ natural flow wells). All major interfaces were based on OPC 2.0 / Modbus TCP/IP.
	+ Controlled over $20+ million in costs, yearly timescales, and resources used to achieve performance metrics, resulting in on-time, on-budget delivery of multiple projects. Assigned to present project results to TL/Managers (Project reporting).
	+ Closely tracked and managed a team to timely forecasting aiming to reach approved milestones, effective project delivery, and accurate time entry in accordance with the business plan.
	+ Acted as a chairman to successfully introduce new family of PCP controllers (Kudu Well Managers) a new technology that became a game-changer in South Oman areas: wells run-life was duplicated, and wells potential were reached within one week.
	+ Led the wells testing facility development aiming to mitigate the effect of steam traces whilst at the same time getting accurate gross, net oil, gas and water figures.
	+ Led a vendors/contractor’s team which provided remediation and security design recommendations for South Oman INTOUCH HMI SCADA system, identified mitigation strategies as needed.
	+ Led a cross functional/ multi discipline team of engineers for the mechanical, piping, electrical and control systems design of the critical portion of Thermal Recovery portfolio: Amal Steam. Supported technical documentation revision included process flow diagrams and P&IDs.
	+ Developed mechanisms for monitoring project progress and interval and problem-solving with project managers and line managers. Led technical presentations to external stakeholders .

## 2009‐2010: TECHNICAL RESOURCE SOLUTION, S.L., MADRID, SPAIN INSTRUMENTATION, CONTROL, & AUTOMATION SENIOR ENGINEER

* + Crafted an instrument index, DCS I/O list, Remote I/O modules based on PLCs and instrument data sheets using Smart Plant Instrumentation for the Astexol- 2 Solar Thermal Unit Project in Spain.
	+ Charged with developing instrumentation specs applicable to solar field and machinery monitoring spec (for full integration to DCS); intervention allowed company to reduce man-hours expenditure whilst milestones/deliverables were presented on time.
	+ Prepared the scope of work, specification and drawings, inquiry packages with bid forms, and instructions for the issue to bidders, technical and commercial evaluations, and clarifications for received bids.

## 2008‐2009: TECNICAS REUNIDAS, S.A., MADRID, SPAIN INSTRUMENTATION, CONTROL, & AUTOMATION SENIOR ENGINEER

* + Developed specs, process flow diagram and P&IDs in Detail Design for Instrumentation and Control System for Elefsina Refinery Upgrade Project (Hellenic Petroleum) in Greece.
	+ Developed Instrument Index, DCS/ESD I/O List and Instrument Data sheets using Smart Plant-
	+ Led DCS and ESD expansion package work team for utilities unit: 72 Boilers Feed Water / Steam System, 73 Steam Condensate Recovery, 74 Demineralised Water, 75 Cooling Tower Water System, 76 Service Water, 78 Plant and Instrument Air, 79 Nitrogen, 80 Refinery Fuel Oil which included hydrogen to lower the sulfur content of diesel fuel., 81 Fuel Gas, 82 Flare, 83 Waste Water Treatment.
	+ Developed Cause and Effect charts, ESD Logic Diagrams for U-72, 73, 74, 80, 81, 82, 85.
	+ Reviewed and checked design packages for installation of new instrument control and shutdown systems in U-72, 73, 74, 80, 81, 82, 85.

# PRIOR ROLES:

## 2007‐2008: TECNICAS REUNIDAS ENGINEERING, L.L.C.

INSTRUMENTATION, CONTROL, & AUTOMATION LEAD ENGINEER, MUSCAT, OMAN (2007-2008)

## 2005‐2007: TECNOCONSULT, SA., HOUSTON, TEXAS

INSTRUMENTATION & CONTROL LEADER/SENIOR ENGINEER

*\*\*\*Additional Employment Available Upon Request\*\*\**

# EDUCATION:

**Master of Science in Project Management (Honor’s) from IEP** Universidad CEU San Pablo/CEU San Pablo University | Madrid, Spain **Bachelor of Systems, Industrial Automation Specialist**

Universidad Experimental Politécnica Antonio José de Sucre | Caracas, Venezuela

# PROFESSIONAL DEVELOPMENT:

**Project Management Professional (PMP) Certification number 2178766 Certified Scrum Product Owner (CSPO) number 1170529**

**Agile Certified Practitioner (PMI‐ACP) Certification number 3356625 Six Sigma Green Belt (PMI/LinkedIn) 02/2022**

# PUBLICATIONS:

**Agile Development of Machine Learning (ML) for Conventional Artificial Lift Systems in the Middle East (SPE‐211112‐ MS)** Society of Petroleum Engineers ∙ October 31st, 2022**.**

### Improving Uptime of Sandy Wells with PCPs through the Application of Self‐optimization Routines (SPE‐200211‐MS)

Society of Petroleum Engineers ∙ March 21st, 2022.

### Challenges in PCP Wells Optimization in South Oman, Artificial Lift R&D Workshop ∙ March 3rd, 2022

**Steam Breakthrough Mitigation in Cyclic Steam Stimulation Operations, A East Field (SPE‐190396‐MS)** Society of Petroleum Engineers ∙ March 10th, 2018.

**Self‐Optimizing Thermal Field Using Beam Pumps with Variable Speed Drive (SPE‐188137‐MS)** Society of Petroleum Engineers ∙ April 27th, 2017.

**Oil Spillage Environment Impact reduction based on Automated Leak Detection on Rod Pumping Wells in South of Oman (SPE‐172613‐MS),** MEOS 2015. Middle East Oil & Gas. Show and Conference. ∙ March 10th, 2015.