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## EDUCATION

BSc, Electronics Engineering /  
Industrial Automation  
*Mapua Institute of Technology,  
Philippines*

The Manchester Leadership  
Development Programme / Alliance  
Manchester Business School,  
*United Kingdom*

## ORGANISATION

Project Management Institute, PMI  
/ Affiliate Member  
International Society of  
Pharmaceutical Engineering, ISPE  
/ Affiliate Member

## INDUSTRY KNOWLEDGE

Manufacturing Processes



Heavy and Highly Regulated



## MANAGEMENT SKILLS

Digital Transformation



Innovation and Digitalisation



Team, Project, and Stakeholder  
Management



Business and Financial  
Management



Consulting and Technical Sales



Leadership and Coaching



Business and Growth Strategy



Organization and Prioritization



Entrepreneurship and Ownership



Business Process and Tools



Presentation



# KERTVIN TUGADO

PMI-ACP, TÜV FSEng, SFSP, CySec

## ENGINEERING LEAD, LINE AND RESOURCE MANAGER PERSONAL INFORMATION

An agile and thought leader with 15+ years intensive years of solid technical expertise, business, stakeholder management and strong business ethics. Strong background on data analytics, engineering and project management, project delivery, consultancy, digitalization, innovation, and software development.

Deliver outstanding governance, leadership, and management of a diverse team of contractors, consultants project and system engineers in Europe and Asia Pacific region for the solutions engineering and consulting business unit of Siemens Digital Industries Process Automation.

Passionate about good leadership and takes pride in building a creative, team spirited, blameless and innovative environment.

## PROFESSIONAL EXPERIENCE

### ENGINEERING LEAD AND LINE MANAGER

*Siemens AG, 2019 – Present*

### COMOS LEAD AND PRODUCT & SOLUTION SECURITY OFFICER

*Siemens AG, 2020 – Present*

### RESOURCE MANAGER

*Siemens AG, 2021 – Present*

- Preparation and review of engineering project proposals and technical compliance in focus overall solutions engineering delivery
- Negotiated and perform project and risk controls to the assigned projects, and managed resources, schedule, workload, and key performance
- Bring outstanding governance, leadership and management to the business and project teams
- Contribute to overall business by managing profit and loss P&L's and increase in margin, change order management and value-added selling strategy for projects and sales
- Administer in rolling out of business goals and targets to projects, engineering, and various stakeholders
- Perform as a technical lead and subject matter expert, engineering management in all throughout the project lifecycle including consultancy and digitalisation topics
- Lead the improvement of engineering processes, tools, application, and standards by use of digitalisation tools and up to date technologies
- Lead, coach and manage a team of engineers locally and across global engineering centres regions
- Ensures that knowledge transfer is always carried out across the team and knowledge on the new technologies are always up to date
- Partake in hiring, selection, and delegation process for global engineering centres

## TECHNICAL SKILLS

PM @ Siemens Project Management



Siemens Process Control System  
PCS7 and Process Modelling using  
SIMIT Platform



Siemens Opcenter Execution  
Pharma MES



Siemens Plant Engineering  
Software COMOS



Siemens PLM and Manufacturing  
Operations Software



Mendix Low Code Application  
Development Platform



Cyber Security and Virtualization



Functional and Process Safety



Python, VB6, C++ and Visual Studio



SQL and Oracle Database



Cloud and Edge Computing



Software Development Life Cycle



Agile, DevOps and Scrum  
Framework



## CERTIFICATIONS

Siemens People and Business  
Management / Siemens AG

Siemens Leading the Digital  
Business Transformation / Siemens  
AG

Functional Safety Engineer and  
Professional / TÜV SÜD

Cybersecurity Specialist on Security  
Risk Assessment / TÜV Rheinland

Siemens Process Control System  
PCS7 / Siemens AG

Siemens Opcenter Execution  
Pharma / Siemens AG

PMI-ACP / Project Management  
Institute

## BUSINESS AND TECHNICAL MANAGER

*Plant.IT Process Automation Solutions, Founder 2017 - 2019*

- Review and budget allocations, financial statements, project expense and managing cost
- Analyze, approve, and recommend approval of all change requests, orders, invoices, and payment applications
- Provide leadership, coaching and guidance to the team of engineers, contractors, and staff members
- Perform administrative functions such as reviewing and writing reports, approving expenditures, enforcing rules, and making decisions about the purchase of materials or services
- Spearhead the hiring and selection process
- Develop and bridge internal and external stakeholders
- Analyze current trends and technologies and market demands, plan and assess the feasibility of projects

## ENGINEERING MANAGER

*CMR Group, Co-Founder 2012 - 2017*

- Provide leadership, coaching and guidance to the team of engineers, contractors, and staff
- Ensures that project is within budget and able to target the project timeline.
- Discuss, review and layout project specifications, timelines, and schedules.
- Review, approve and modify designs and Develop cost estimates and Proposals
- Analyze key performance indicator, continuous improvement and development plan for engineers and staff
- Analyze market demands and develop business growth strategy for sales and technical team

## RECOGNITION AND ACHIEVEMENTS

- Successfully manage, lead, and deliver numerous complex full lifecycle projects, approximately ~£25M in total revenue
- Champion for project delivery, execution and controls contributing to improved overall business targets and margin by ~20%
- Champion for people leadership, global collaboration, engineering, technological and stakeholder management
- COMOS region champion for the solutions business and successfully spearheaded the collaboration for the conceptualization, development, and release of COMOS tools and additional plug-ins.
- Effectively increase project engineering execution and delivery resulting in increase in profit margin by ~30%
- Champion for digitalization and innovation technological development for the engineering delivery and business
- Effectively establish value-added delivery and sales to projects, taking leverage of opportunities resulting in additional increase in profit and sales
- Champion for people leadership, global collaboration, engineering, technological and stakeholder management

## INDUSTRIES

Pharmaceuticals and Life Sciences



Petrochemicals and Chemicals



Cement & Mining



Food and Beverage



Oil and Gas



Automotive and Machinery



Electronics and Semiconductor



Aerospace



Electric Power Generation



## ENGINEERING SKILLS

Good Automated Manufacturing Practice



Validation and Qualification



System Design and Development



Industrial Communication and Protocols



3<sup>rd</sup> Party Distributed Control System



International Standard / International Society of Automation



System Integration



Blueprints and Architecture Design and Concepts



Digitalization



Solutions and Software Development



Lean Start-up and Six Sigma



Discrete, Process, Continuous and Batch



## SELECTED BUSINESS PROJECTS

- Regional and global contributor for developing and improving engineering processes, best practices and methods, execution of local business strategy and developing high level of customer relationship
- Task and assigned by the business and one of the members of the committee on certifying and recertifying TÜV SÜD cybersecurity and functional safety blueprints based on IEC62443 and IEC 61511
- Regional contributor for the development and standardization of Siemens Opcenter Execution Pharma Manufacturing Execution System MES architecture, test specification, detailed and functional design documents to be used in Life Science industry
- Global contributor for the research, execution, and development of the Siemens SIMATIC Process Control System PCS7 Pharmaceutical Industry Library
- Regional contributor for the development, update and release of validated design, test execution and functional documents on topic of Cybersecurity, COMOS, PCS, Integration Services and MES.
- Locally spearhead and global contributor for raising the global engineering and resource center development for Process Control System PCS and Manufacturing Execution System MES
- Regional and global contributor for developing and exploring innovative ways for engineering delivery and subject matter expertise knowledge sharing
- Evangelist for the use of existing, new, and upcoming technologies such as Artificial Intelligence, Blockchain, Machine Learning, Edge, Cloud, Digital Twin, Industrial IoT and Modular Engineering geared towards the advancement of Industry 4.0

## SELECTED TECHNICAL PROJECTS

- Centre of Process Innovation CPI: Medicine Manufacturing Innovation Centre Grand Challenge, Siemens Opcenter Execution Pharma Manufacturing Execution System MES, Opcenter XHQ Operation Intelligence, Tecnomatix Digital Twin
- GlaxoSmithKline: Cell and Gene Therapy Catapult, Siemens SIMATIC Process Control System PCS7 Batch Control, Process Historian, Industrial Cybersecurity, Opcenter Execution Pharma Manufacturing Execution System MES, and SIMIT Digital Twin
- GW Pharma: Sittingbourne Site, SIMATIC Process Control System PCS7 Batch Control, Opcenter Execution Pharma Manufacturing Execution System MES, Process Historian, SIMIT Digital Twin and Industrial Cybersecurity
- Briar Chemicals: Biotechnology Complex Chemicals Facility Distributed Control System, Siemens SIMATIC Process Control System PCS7 Batch Control, Safety SIS Control, Industrial Cybersecurity and SIMIT Digital Twin
- Shell & Chevron: Terminal Plant Distributed Control System, Siemens SIMATIC Process Control System PCS7, Safety SIS Control, Process Historian, and Industrial Cybersecurity
- Petronas: Floating Liquified Natural Gas Offshore Integrated Control and Safety System, Siemens SIMATIC Process Control System PCS7 and Emerson DeltaV Distributed Control System, Safety SIS Control, and Industrial Cybersecurity

# EXECUTIVE SUMMARY ACHIEVEMENTS

## SIEMENS AG

- Successfully lead, managed, and deliver concurrent multiple complex complete lifecycle projects from several industries ranging from heavy to highly regulated, to safety and critical infrastructure
- Champion for external stakeholder leadership and developing good customer relationship that provides sincere trust and confidence in the solutions offered and the project team eventually contributing to the awarding of succeeding projects.
- Lead to increase Profit Margin by leveraging any gaps and effective project and resource management, finding ways and strategy to deliver effective and efficient projects
- Champion for people leadership, engineering and project management expertise that focuses on engineering, growth, motivation, blameless and ownership culture.

## PLANT.IT

### PROCESS AUTOMATION SOLUTIONS

- Drives consulting solutions for sales proposal, bids and complete project life cycle execution and delivery
- Improve sales revenue by at least 20% by creating targeted business proposal and solutions-based strategy and eliminating waste engineering
- Develop bespoke templates, coding methods, standards, project, and team coaching resulting in improved project engineering efficiency by at least 25%
- Provide technical and solution consultancy that delivers additional engineering effectiveness by at least 20%
- Drive presentations, negotiations, business proposals and plans and ideas to C and manager level executives
- Deliver technical and business roadmap that shows value capture strategies
- Successfully owned a technical consultancy business project with a Return of Investment of 30% in 2 years to the investors

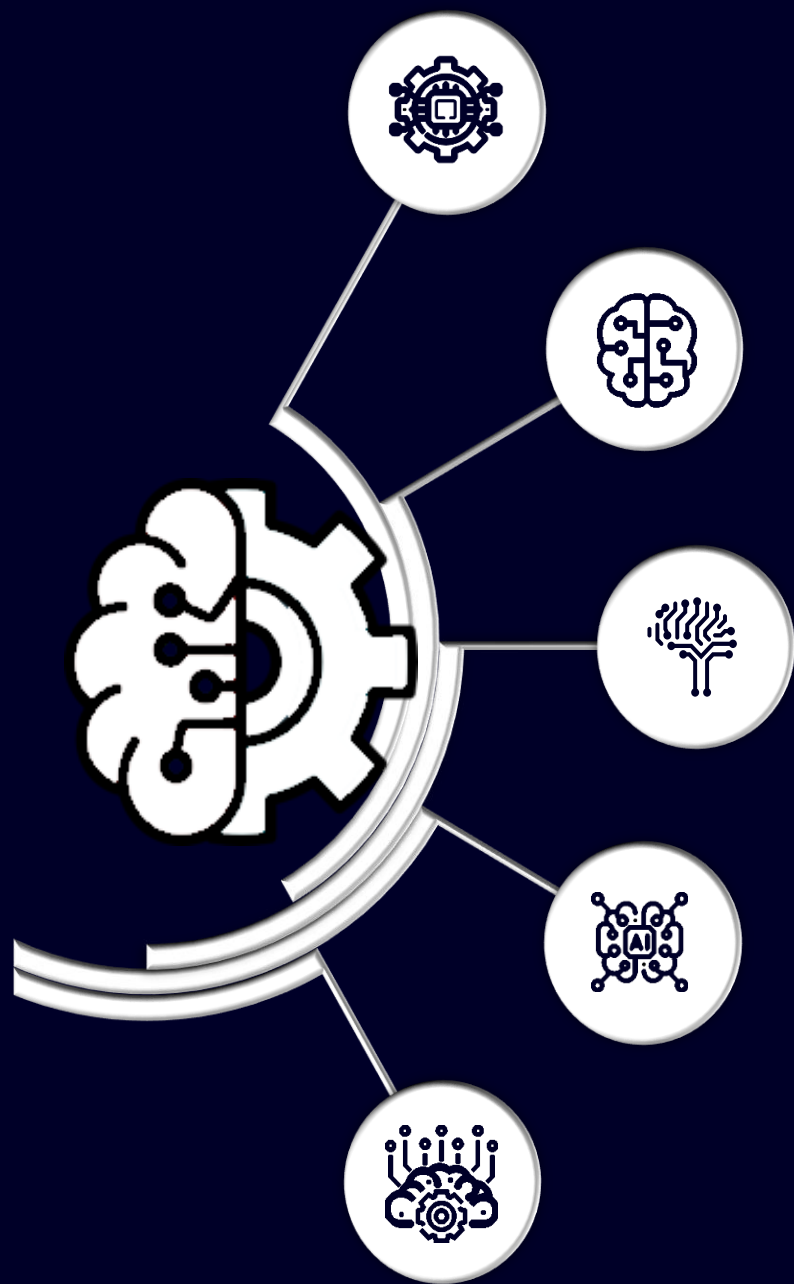
- Lead in contributing to overall project and business Profit and Loss P&L's by eliminating waste, improving process and project turnaround, and by value-added selling strategy to customers and projects
- Lead in rolling out of departmental business and engineering strategy, goals, and targets, ensuring they are delivered consistently to various stakeholders
- Principal person for cyber security, IT-OT, and digitalisation topics in the engineering solution business and in addition gain expertise in pushing limits and boundaries of new developing technologies.
- Champion in exploring and developing new methods, solutions, technology, and process improvements to increase engineering delivery efficiency and effectiveness.
- Presenter for annual internal International Engineering Meetings on topics of efficient engineering delivery, software engineering and leveraging technologies.

## CMR GROUP

- Champion in improving project engineering by at least 30% by developing templates, coding methods, standards, and good engineering practices
- Increase profit margin by 20% by improving engineering efficiency, project management and value stream
- Coach and develop a highly performing engineering team, overseeing KPIs, growth and improvement plan
- Drive successful sales proposals, presentations, negotiations, business, technical roadmaps to stakeholders
- Improve repeat orders and value turnovers by 20% by efficient project execution together with change and cost control management
- Improve business and growth strategy by increasing market coverage, additional value creation and delivery

# EXECUTIVE SUMMARY

## CAREER ROADMAP



### SIEMENS AG

- Agile and Thoughtful Leader
- Engineering Lead and Line Manager
- Functional Safety Professional and Management
- Cybersecurity Specialist
- Global Collaboration Germany, Netherlands, Austria, India, and France
- Engineering and Business Excellence Contribution
- Leadership Excellence
- Efficient Engineering, Project Delivery and Execution
- Resource Management Responsibilities
- Region COMOS Lead
- Innovation, Technologies, and Templates
- Process Improvements, Standards and Methods
- Subject Matter Expert, Solutions and Support
- Global Engineering Centres
- Innovation and Digitalization

### PLANT.IT PROCESS AUTOMATION SOLUTIONS

- Agile and Thoughtful Leader
- Technology Evangelist
- Founded and Start-up Company
- Business and Technical Manager
- Software and Project Engineering Expertise
- Engineering, Business and Technology Consultant
- Digitalization and Industry 4.0
- System Integrators, Machine Vendors and Manufacturers
- Engineering Services for Project Execution and Delivery

### EMERSON PROCESS MANAGEMENT ZI-ARGUS INDUSTRIAL AUTOMATION

- Technical Support for Asia Pacific Region
- Technology Evangelist
- Technology Lead for Automation Solutions for Offshore and Onshore Oil and Gas Production Industry
- Trainer for Upstream Oil and Gas Products and Solutions
- Senior Engineer
- Australia, Thailand, and New Caledonia Regions
- Energy, Mining, Food and Beverage, Chemicals and Pharmaceuticals
- Engineering Consultancy

### CMR GROUP

- Co-Founded Engineering Group
- Agile Leader and Technology Evangelist
- Engineering Manager Singapore and Philippines
- Engineering, Business and Technology Consultant
- Engineering Manager
- Business and Technical Growth
- Scale-Up Engineering Team, Delivery and Execution
- Industry Coverage for Nuclear, Energy, Oil and Gas, Cement, Pharmaceuticals, Food and Beverage
- Industry 4.0 and Innovation