

Engr. PAUL EVAHN P. VILLAREAL

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A. PROFESSIONAL SUMMARY

With 5 years' experience in plastics, foam, and specialty chemical manufacturing industry as a Chemical Engineer, covering from Process, Research and Development, and Quality. Recognized as accredited Chemical Engineer in the Philippines and Kingdom of Saudi Arabia.

B. WORKING EXPERIENCE/S

- Company: Gulf Factory for Insulation Panels Production Industry
Brand name: Saap Panels
Location: Al-Rowaidah Thadiq Province 15223, Riyadh, Saudi Arabia
Designation: **Chemical Engineer**
Duration: November 24, 2022 – Present (2 Years' Contract)
Description: Manufacturing of polyurethane/ polyisocyanurate-based sandwich panel (wall and roof) for building construction application.

Accomplishments:

- PROCESS ENGINEER
 - Optimized process parameter (line speed and temperature) for foam unit line, machine Rober Italy.
 - Optimized chemical formulation (polyol, MDI, additive, and catalyst ratio) for foam unit line from Dow and Huntsman Chemicals.
 - Modified chemical tank reactor from single to double feed, eliminating 30-minute downtime due to chemical loading.
 - Troubleshooted MDI pump from cavitation under process improvement.
- QUALITY ENGINEER
 - Established fire resistant testing and certificate to sandwich panel complying BS EN 13501 through Thomas Bell-Wright UAE.
 - Pioneer of mechanical testing (tensile and compressive strength) analysis using Mecmesin UTM.
 - Pioneer of ISO 9001:2015 - Quality Management System and ISO 45001:2018 – Occupational Health and Safety Management System Certification through DAS Certification United Kingdom.

- Company: Polyfoam RGC International Corporation
Brand name: Uratex
Location: 1608 Sapang Bakaw Street East Canumay, Valenzuela City Philippines
Designation: **Chemical Engineer**
Duration: October 21, 2019 – October 20, 2022 (3 Years' Experience)
Description: Manufacturer of foam and plastic injection products for furniture, mattresses, and foam-related application.

Accomplishments:

- RESEARCH AND DEVELOPMENT ENGINEER
 - Implemented process change on mixing and extrusion from Fure shuen Machinery Taiwan using optimized design experiment.
 - Improved cooling tower rehabilitation project for 2 years, increasing the cycle time using process optimization.
 - Pioneer of a sustainable product development, conversion of food container into biodegradable plastics with service life of 2 years using life cycle analysis method.
 - Developed and re-designed packaging for Monoblock table using value analysis and value engineering process with 26 percent cost savings.
 - Established warranty to Monoblock chair products using accelerated and natural weatherability design laboratory experiment, ASTM D4364.
 - Tested reformulation on Monoblock chairs using cost benefit analysis, design of experiment, and product testing using Instron and Haida Testing Machine.
- PRODUCT DEVELOPMENT ENGINEER
 - Launched 11 products of plastic furniture to local market with product standard seal and patent.

- Re-launched better priced storage solution (drawers) with 30 percent down compare to leading price.
- c. **PROCESS AND TECHNOLOGY ENGINEER FOR PLASTICS**
- Handled commissioning of 2 servo injection machine (730 and 850 tonnage) with hydraulic two-platen type technology for 570k USD project with payback of 4 years from Jonwai Machinery Taiwan.
 - Engineered on line capacity expansion of Monoblock business plant for 6M USD project.
 - Built the commissioning of automatic material conveying system from A-Max Taiwan, a gravimetric type for 800k USD project.
 - Pioneered the manufacturing execution system of injection machine line for 50k USD project from Techmation Company Taiwan.
 - Designed a recycling facility plant design for plastics with a capacity and area of 500 kg/hr and 300 square meters respectively for 10k USD project.
 - Managed double screw extruder commissioning project of 500k USD capex from Century Extrusion Company USA.
3. Company: Genstar Manufacturing Corporation
 Brand name: Genstar
 Location: 6L San Diego Street West Canumay, Valenzuela City Philippines
 Designation: **Chemical Engineer**
 Duration: April 2018 – August 2019 (1.5 Years' Experience)
 Description: Manufacturer of plastic injection products for packaging of food and paints

Accomplishments:

- a. **PRODUCTION COORDINATOR/ SUPERVISOR**
- Tested and designed system program that will support transactions inside manufacturing business units from Rebar Solutions Company Philippines.
 - Resolved manufacturing issues concerning process systems and operations.
 - Resolved issue on product rejects by initiating process improvement on in-mould labelling using starch compound deposits on OPP (oriented polypropylene).
 - Developed product design on in-mould labelling by introducing pearl film (biaxially oriented polypropylene film) with 25% added durability on fatigue compare to leading film material.
 - Successfully reduced 20% of overhead cost by supporting optimization of operators working capability and time measurement analysis.

C. EDUCATION

Bachelor of Science in Chemical Engineering
University of Santo Tomas – España Manila, Philippines
 June 11, 2012 – May 31, 2017

D. ACCREDITATION AND LICENSES

- Licensed Chemical Engineer
1. November 22, 2017 – August 30, 2024
Professional Regulation Commission – Philippines
- Accredited Chemical Engineer
2. December 6, 2022 – December 6, 2024
Saudi Council of Engineers – Saudi Arabia
- Driver's License
3. September 2022 – August 30, 2027
Department of Transportation – Philippines

E. AWARDS RECEIVED

- Recognition for Promoting Academic Excellence
1. November 2017
University of Santo Tomas, Department of Chemical Engineering

F. CERTIFICATION, SKILLS, AND TRAININGS

- Quality Management System Training
1. Philippine Institute of Chemical Engineers, November 20, 27 and December 4, 2021
Skills Acquire: QMS Auditing
Mastering Management Fundamentals 101
 2. RGC Group Uratex Philippines, August 18 – 19, 2022
Skills Acquire: Project Management, Leadership, and Planning