

Personal Data:

Name: **Mr. Gabriel Frangopol**
Date of Birth: 1982.02.13
Current position: Principal Engineer, Electrical & Automation Department

Experience in relevant engineering fields:

Jan 2019 – Jun 2019 **Space@Sea EU research Project**
Responsible for Energy Storage System (ESS) solution. Power Management System Philosophy. Electrical Diagrams.

Feb 2018 – Dec 2018 **Cruise Vessel**
Implementation in 3D Model for different power and telecom System equipment.

Nov 2017 – Jan 2018 **1.6 MBBL GFPSO**
I/O List for Hull & Marine, Consumers List

Sep 2017 – Nov 2017 **LNG Power Barge**
Control and Monitoring System Architecture Diagram, Shutdown Philosophy, MTO for Automation

Jan 2017 – Aug 2017 **T-AO 205 Replenishment Oilers – to a design Company in San Diego**
Machinery Centralized Control System (MCCS) block diagram, review for Steering Gear VFI, Electric Plant Generation Control and Monitoring System block diagram, Propulsion Control System block diagram, Cargo Potable Water System block diagram

July 2013 – Jan 2017 **Floating Storage and Offloading (FSO) vessel conversion**
Instrumentation and Control Systems Identification & Numbering Specification
FSO ICSS Network Architecture
Vessel Control System Architecture (VCS)
I/O List for Marine Systems
Cable List for Marine Systems
FSO Overall control block diagram (including VCS)
Review P&IDs for Instruments and Control Systems
Review Wiring Diagrams reports for Process Control System (PCS) and Process Safety System (PSS)
Review Instrument Loop Diagram reports for PCS from Smart Plant for Instrumentation
Review for Instrument Datasheets for Marine Systems
MCC Typical with Instrumentation, I/O List in Smart Plant for ICSS, Cable List, I/O Count
Instrument List for ICSS
Wiring Diagrams for Safety Systems in Smart Plant for Instrumentation (FGS and ESD) in Smart Plant for Instrumentation
Signal allocation on redundant I/O Cards in System Cabinets for Safety Systems (FGS and ESD) in Smart Plant for Instrumentation
Instrument loop diagram reports in Smart Plant for Instrumentation (FGS

and ESD)

Instrument Datasheet for Level Transmitters, Flow transmitters, Control valves and Pressure Transmitters in Smart Plant for Instrumentation
BID Evaluation for control part, On/Off remote actuated valve typical;
Deluge Valve typical, Conversion Specification ICSS part

January – July
2013

Drill Ship

Master Equipment List for Electrical part
Electrical UPS One Line Diagram
UPS Load Balance
UPS Consumption List
Main Electrical Equipment Arrangement (under TL supervision)
DC Power Consumption List
DC Power Consumption Balance
Table with information for all equipment installed in hazardous areas
Comments for Vendor Furnished Information on Electrical part
Hazardous Area – review
Low Voltage Switchboard – Single line Diagram
Emergency switchboard – Single Line Diagram

**Self-propelled Jack-up Offshore Wind Turbine Installation Vessel
NG 2500X**

Navigation and Signalling Lights Arrangement (under TL supervision)
Schematic Diagram for Navigation Lights

2012

Conversion Shuttle Tanker-FSO, Feed Phase

Instrument TAG Procedure, Instrument Technical Room Layout (under TL supervision) Navigation Bridge Desk Layout (under TL supervision);
Instrument list Instrument Database
Instrument design & installation Overall ICSS block diagram
Hazardous areas schedule drawing

Drill Ship (Basic Design Phase) - IAS, DP, ESD, F&G Package

**OSX FPSO (Detail Design Phase) – Seconded to a design company
in Monaco**

Instrument Datasheet in Smart Plant for Instrumentation Pressure Gauges & Differential Level Transmitter Temperature Gauges & Pressure Safety Valves Technical BID Evaluation for Differential Level Transmitter PLC signals allocations on card for PSS Multi-item spec for Fire & Gas Equipment Cause & Effect Diagram instrument checking PCS termination checking Instrument Junction boxes schedule update Training Smart Plant Instrumentation Fill in SPI data for Instrument junction boxes check Vessel Fire & Gas I/O list against Cable block diagrams check FPSO P&ID against cable block diagrams for Fire & Gas

2010 – 2011

**Self-propelled Jack-up Offshore Wind Turbine Installation Vessel
NG5500**

Connection Diagram for Main Switchboard 400V Cable list instrumentation Connection diagram for Fresh Water Maker/Electric Booster Heater/UV Sterilizer Hazardous Area Classification and Equipment Data – block diagram Schematic Diagram for Emergency Generator Starting Main Electrical Equipment Layout

2009 –2010

Mid-Shore Patrol Vessel

Detail Design: Remote Valves-one line diagram One line diagram for: Electrical Distribution Switchboards Electrical Distribution Panels Individual Starters Fire Main & Bilge Pumps Shutdown System

Navigation lights Alarm & Monitoring System ME Remote Control & Propeller Earthling Shaft Bilge System Window Wiper Cable Termination and Cable Routing for all electrical systems mentioned above, also for Whistle System, Speed-log System, steering Gear System

Basic Design: Single line diagram, Hazardous area plan, Principle arrangement and calculations for battery installations, Location of major items of electrical equipment, Frontal view of main and emergency switchboards and section boards, Emergency switchboard - schematic diagram Navigation lights - schematic and principle arrangement plans Visibility plan, Alarm, monitoring and control system - description and list Block diagram for: Propulsion control system, Power management system, 24 DC UPS for automation, Tank level measuring system. Description and block diagram of the overall alarm system Schematic and principle arrangement plans Emergency shut-off facilities - Location and details of control stations (arrangement for MCR) - (under TL supervision)

Schematic and principle arrangement plans for: Internal Communication equipment, Battery less/Sound powered telephones system Automatic telephone system Equipment Technical Specification for: Power System, CCAMS (Centralized Control, Alarm & Monitoring System), Lighting System (under TL supervision), and Electric fault current and protective device study.

Technical BID Evaluation Cable Schedule.

2010 – 2011

Bulk Carrier 32000 Dwt.

Basic design: Visibility plan

2011

Tanker - FSO Vessel Conversion

Wire diagram of the fire dampers control system with interlock to the new ESD system ESD system wiring diagram

Cable Termination List; Updated spot lights arrangement; Updated wire diagram of lighting; Updated flood lights arrangement; Updated wire diagram of flood lighting

2008 – 2009

FPSO hull new building

Automation & Control Architecture – block diagram

Central Control Room – layout (under TL supervision)

Instrumentation Legend – block diagram

Instrument Equipment Room – layout (under TL supervision)

IO Summary List

DC Power Consumption Balance

Lighting and Illumination Calculation (Lux Study)

Lighting Layout (under TL supervision)

General Specification for Instrumentation (under TL supervision)

2008

FPSO conversion (technical assistance in Norway)

Automation, Instrumentation & Control Philosophy (under TL supervision)

Fire & Gas detection philosophy (under TL supervision)

Shutdown Philosophy (under TL supervision)

Control system topology – block diagram

Typical ESD logic – block diagram

2008

Oil/Chemical Tanker IMO3 - 48.800 dwt. basic design

Alarm Point List

Alarm System for Technical Officers – schematic diagram

Tank Level Indicator System – block diagram

24 V DC UPS distribution for Automation – block diagram

- 2008 **Bulk Carrier 32000 dwt. basic design**
 Main Switchboard – schematic diagram
 Emergency Switchboard – schematic diagram
 Alarm System for technical Officers
 Visibility Plan
- 2007 **FPSO conversion – Instrumentation**
 Instrument datasheets for Pressure Transmitter Level Transmitter
 Gauges Miscellaneous Hydraulic and Pneumatic Valves
 Valves Safety Valves
 Instrument Index
 Connection Diagram
 Instrument Cable Schedule – Part of Vessel Overall
 Instrument Cable Diagram – Tank Level Gauging
 Engine Room – Instrument Layout
- November 2006 Cable Diagrams – Distribution Panels

Employment History:

2011 – present	International Contract Engineering	Principal Engineer
2008 – 2011	International Contract Engineering	Engineer
2006 – 2007	International Contract Engineering	Junior Engineer

Education & Qualifications:

2007 – present	“Dunarea de Jos” University, Galati Faculty of Electrical Engineering	Ph. D. in Electrical Engineering Subject: Analysing Energetic Efficiency of Electrical Propulsion Systems for Naval Engineering
2006 – 2009	“Dunarea de Jos” University, Galati Faculty of Electrical Engineering	Master’s degree in Informational Control Systems in Electrical Energy Transport and Conversion
2001 – 2006	“Dunarea de Jos” University, Galati Faculty of Electrical Engineering	Bachelor’s Degree in Electrical Engineering

Additional relevant Trainings:

2014	International Contract Engineering	Project Management for Key Project Personnel
2013	Intergraph Polska	Smart Plant Instrumentation User Training Smart Plant Instrumentation Installation and System Administration Smart Plant Instrumentation Customization & Data Management Smart Plant Instrumentation Advanced Wiring & Reporting

2013	Norwegian Business School	RVK Basic Course with in-depth focus on Project Engineering and Construction
2008	International Contract Engineering	Completion P&ID with Instrumentation
2008	International Contract Engineering	Tribon M3
2007	International Contract Engineering	Instrumentation
2007	International Contract Engineering	English – upper/intermediate
2007	RETEC SA Galati	Internship – Execution of Distribution Panels and order Panels
2007	International Contract Engineering	Lighting Calculation, Single Line

Other Professional Skills:

Foreign language(s): reading / listening / speaking / writing

English C1- Upper-int. /B2- intermediate /B2- intermediate/ C1- Upper-int.
 French Intermediate / Intermediate / Intermediate/ Intermediate
 German Beginner / Beginner / Beginner / Beginner

Software: AutoCAD 2D (advanced)
 Matlab, Smart Plant for Instrumentation (INTools)
 C++, FoxPro, Visio
 Optiwin Glamox (Lighting Calculation Program)
 Promis-E (latest version of Microstation by Bentley)

Date of last review: 2019.07.23

Giampy