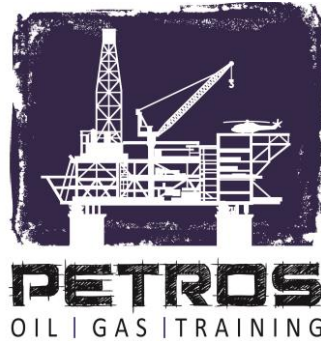


Certificate No : 2021-PTR-EC-BLAST-001
Date : August 2nd , 2021



CERTIFICATE OF ACCOMPLISHMENT

This is to certify that

NIRWAL MAHDI ABDULLAH, S.T, M.T
ID NUMBER : EC-BLAST-001

has completed 40 hours e-course & finished the Final Project for

**BLAST STRUCTURAL NON-LINEAR ANALYSIS
FOR OFFSHORE STRUCTURES (SESAM & USFOS)**

Trainer :

IR. ALEX ELPIANTO KAJUPUTRA, MT, ACPE
Principal Offshore Structure Integrity Engineer

Held by **PETROS Oil Gas Training** – Jakarta,
covering the subjects as listed on the back page



Certificate Validation

A handwritten signature in black ink, appearing to read "Heru Prasadja".

Heru Prasadja, ST
Director

BLAST STRUCTURAL NON-LINEAR ANALYSIS FOR OFFSHORE STRUCTURES (SESAM & USFOS)

BLAST STRUCTURAL ANALYSIS PROCEDURE

- Analysis Criteria
- Blast Analysis Loading
- Acceptance Criteria
- Dynamic Effects
- Analysis Software

STUDY CASE

SACS MODEL CONVERSION TO SESAM

SESAM MODEL CONVERSION TO USFOS

- Topside Model Separation
- Model Validation
- Model Preparation
- Model Conversion

NON-LINEAR DYNAMIC ANALYSIS

- USFOS Load Control
- USFOS Analysis
- Analysis Results Interpretation

FINAL PROJECT