

Certificate No : 00220/XII/2025/047/BTS

Date : 17 November 2025

BontiStudio



CERTIFICATE OF ACCOMPLISHMENT

THIS CERTIFICATE GRANTED TO

MUHAMMAD IAN RANGGASULIH

For participating and completing the Final Test of our Training

COMPREHENSIVE PIPELINE CONSTRUCTION & COMMISSIONING

organized by **INUSA Construction|Engineering Training**, covering the subjects
listed on the back page with score Excellent

TRAINER :

I PUTU SUKMAYASA

CONSTRUCTION AND COMMISSIONING MANAGER (EPCI)




Henny Puspitasari
Director

Comprehensive Pipeline Construction & Commissioning

1. Pipeline Design & Drawing Fundamentals

- Introduction to pipeline systems and project lifecycle
- Design basis, route selection, and engineering interfaces
- Reading and interpreting PFD, P&ID, and Alignment Sheet

2. Pipeline Material Procurement & Specification

- Line pipe, fittings, valves, and coating specifications
- Material Take-Off (MTO), procurement process, and inspection requirements
- Key documents: Material Test Certificate (MTC), inspection report, delivery note

3. Pipeline Construction & Field Installation

- Construction sequence: ROW preparation, stringing, welding, NDT, coating, lowering in, backfilling
- Installation of pipeline equipment: block valve, launcher, receiver, tie-in
- QA/QC and HSE compliance during construction activities

4. Pipeline Pre-Commissioning & Commissioning

- Pipeline cleaning & gauging to ensure internal cleanliness and diameter acceptance
- Hydrotesting, dewatering, drying, nitrogen purging, and leak testing
- Pigging operations and operational readiness acceptance criteria

5. Documentation, Final Dossier & Project Handover

- Compilation of ITRs, test packs, and as-built documentation
- Commissioning dossier and completion certificates
- Project handover to the operator and close-out process