



DATAK ENGINEERING COURSE MODULE

ADVANCE PROCESS ENGINEERING

OVERVIEW OF MG ENGINEERING PROJECTS (PLANNING AND DESIGN PHASE)

Case 1: Oil and Gas Industry in Sumitry

Case 2: Engineering Design Phases

Case 3: Primary Process Systems

Case 4: Utility Systems

Case 5: Introduction to Process Simulation Aspen Hysys Software

PROCESS SIMULATION MODELLING USING ASPEN HYSYS

Case 1: Gas Gathering System using HYSYS

Case 2: How station simulation

Case 3: Booster Station Simulation

PROCESS CALCULATIONS

Case 1: Line Sizing Calculation

Case 2: Process Pump Sizing

Case 3: Control Valve Sizing

Case 4: Two Phase and Three Separator Vessel Sizing

- Introduction to separator sizing
- Introduction to the different components of a separator internal
- Controlling separator's Level
- Understanding the design parameters that affect separator sizing

PFD and P&ID INTERPRETATION

Case 1: Block flow Diagram

Case 2: Interpretation of Process Flow Diagram

Case 3: Interpretation of Process Engineering flow scheme (P&ID)