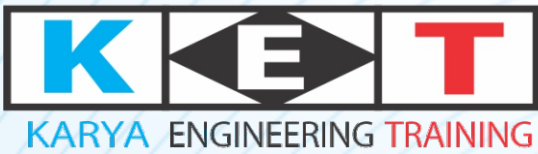


# COMPANY PROFILE



COURSE & TRAINING

*Level Study :*

**DRAFTING - DESIGNING - ENGINEERING**

Process - Mechanical - Piping - Instrument - Electrical - Civil



Support by EPC Company :

 **PT TEKNIK KARYA INDUSTRI**  
ENGINEERING & CONSTRUCTION CREATION  
[www.teknikkaryaindustri.com](http://www.teknikkaryaindustri.com)

## **PREFACE**

Karya Engineering Training (KET) Training and Courses are developed by PT Teknik Karya Industri. KET conducts the Training and Courses for Engineering Design as Calculation, Analysis Study, Specification Design, Data Sheet and Drawing for Process, Mechanical, Piping, Instrument, Electrical and Civil. Trainees be divided 3 levels as *Drafter*, *Designer* and *Engineer*, they will be given internship opportunities at PT Teknik Karya Industri appropriate with on going Project or a previous Project with using the Software Program. This matter aims to help to Trainees in order to ready the work.

## **VISION**

To be a leading provider of Training and Courses for leading, innovative and quality workforce Nationally and Internationally in the face of global competition.

## **MISION**

Providing Courses and Training which applies for Oil & Gas, Petrochemical, Chemical, Mineral, Energy and other related Industries sector with innovation and quality through the best practices and enhancing competencies that add value and maximize customer satisfaction and encourage the enhancement of mutually beneficial cooperative relationships.

## **PROFILE**

Mr. Krisna Dharma Kurnia Indonesian citizen, obtained his Bachelor's degree in Electrical Engineering from University of Indonesia, Depok in 1994. He has experiences more than 23 years in Engineering and Construction for Chemical, Petrochemical, Oil, Gas, Mining, Building and Industrial in Local and Overseas Projects.

Currently Mr. Krisna Dharma Kurnia serving for Engineering, Procurement, Construction (EPC) Company as President Director of PT Teknik Karya Industri (TKI), Operational Director of PT Teknik Prima Solusi (TPS) and also as Owner of Karya Engineering Training (KET).



*Krisna Dharma Kurnia (President Director)*

## **OUR CLIENTS**



PT. PLN (PERSERO)



**GEO DIPA ENERGI**

*\*Prospective*

# TECHNOLOGY

Using high technology software in order to execute Engineering Design as Calculation, Analysis Study, Data Sheet and Drawing for Process, Mechanical, Piping, Electrical, Instrument and Civil Project. Engineering software such as AutoCAD, PDMS, SP3D, ETAP (Electrical), STAAD PRO (Civil), CAESAR II (Piping), INTOOLS (Instrument), I TANK & ETANK (Mechanical) and HYSYS (Process). Trainees could prepare Equipment Sizing, Piping Layout, Pipe Stress Analysis, Electrical Power System, Civil Foundation and Structure Design.

# TRAINING AND COURSES

KET-A000 ENGINEERING		
KET-A130 PROJECT MANAGEMENT		
NO	TRAINING TITLE	DISCIPLINE
1	<b>KET-A130 PROJECT EXECUTION PLAN</b>	PM
	KET-A130-01 PROJECT EXECUTION PLAN	
	KET-A130-02 PROJECT DEFINITION AND GENERAL INFORMATION	
	KET-A130-03 PROJECT MASTER SCHEDULE	
	KET-A130-04 PROJECT S-CURVE PROGRESS PLAN	
2	<b>KET-A140 PROCEDURE DOCUMENT</b>	PM
	KET-A140-01 DOCUMENT NUMBERING PROCEDURE	
	KET-A140-02 EQUIPMENT AND PIPING NUMBERING PROCEDURE	
	KET-A140-03 MASTER DOCUMENT AND ITEM LIST	
	KET-A140-04 PROJECT COORDINATION PROCEDURE	
	KET-A140-05 COMMUNICATION AND CORRESPONDENCE PROCEDURE	
	KET-A140-06 PROJECT REPORTING PROCEDURE	
	KET-A140-07 DOCUMENT CONTROL PROCEDURE	
	KET-A140-08 PROGRESS CALCULATION AND REPORTING PROCEDURE	
	KET-A140-09 REVIEW AND APPROVAL PROCEDURE	
	KET-A140-10 PROJECT QUALITY PLAN	
3	<b>KET-A150 BID DOCUMENT</b>	PM
	KET-A150-01 VENDOR LIST	
	KET-A150-02 BID DOCUMENT ENGINEERING PROCUREMENT CONSTRUCTION	
	KET-A150-03 PROJECT SCHEDULE EPC	
	KET-A150-04 COST ESTIMATION EPC	
	KET-A150-05 BID DOCUMENT PERUSAHAAN JASA INSPEKSI TEKNIS	
	KET-A150-06 COST ESTIMATION PERUSAHAAN JASA INSPEKSI TEKNIS	
	KET-A150-07 BID DOCUMENT PROJECT MANAGEMENT TEAM	
	KET-A150-08 COST ESTIMATION PROJECT MANAGEMENT TEAM	
KET-A210 HEALTH, SAFETY AND ENVIRONMENT		
NO	TRAINING TITLE	DISCIPLINE
1	<b>KET-A210 GENERAL HEALTH, SAFETY AND ENVIRONMENT</b>	HSE
2	<b>KET-A211 HSE PLAN</b>	HSE
	KET-A211-01 OFFICE HEALTH AND SAFETY PLAN	
	KET-A211-02 SITE HEALTH, SAFETY AND ENVIRONMENT MANAGEMENT	
	KET-A211-03 ENVIRONMENT RISK MANAGEMENT IMPLEMENTATION	
3	<b>KET-A212 HSE PROCEDURE</b>	HSE
	KET-A212-01 HEALTH AND SAFETY PROCEDURE MANUAL	
	KET-A212-02 HSE SYSTEM PROCEDURE	
4	<b>KET-A213 HSE SPECIFICATION</b>	HSE
	KET-A213-01 HSE SPECIFICATION	
	KET-A213-02 HSE SCOPE OF WORK	
5	<b>KET-A214 HSE ENGINEERING ECONOMICS</b>	HSE
6	<b>KET-A215 HSE RISK MANAGEMENT</b>	HSE
KET-A220 PROCESS ENGINEERING		
NO	TRAINING TITLE	DISCIPLINE
1	<b>KET-A220 GENERAL PROCESS</b>	PROCESS
	KET-A220-01 PROCESS STANDARD	
	KET-A220-02 AMERICAN PETROLEUM INSTITUTE (API)	
	KET-A220-03 PROCESS ENGINEERING PROCEDURE	
	KET-A220-04 VALUE ENGINEERING	
	KET-A220-05 PROCESS MANUAL	

	KET-A220-06 HTRI (HEAT TRANSFER RESEARCH INCORPORATION)	
	KET-A220-07 JOB INSTRUCTION	
	KET-A220-08 PEN (PROCESS ENGINEERING) TOOL	
	KET-A220-09 PROCESS OVERVIEW AND PREPARATION	
	KET-A220-10 PROCESS DEVELOPMENT AND CONFERENCE	
2	<b>KET-A221 BASIC DESIGN PROCEDURE</b>	PROCESS
	KET-A221-01 SCOPE OF BASIC ENGINEERING	
	KET-A221-02 PROCESS DESIGN PHILOSOPHY	
	KET-A221-03 BASIC DESIGN PACKAGE	
	KET-A221-04 VERIFICATION PROCEDURE	
3	<b>KET-A222 BASIC ENGINEERING DESIGN DATA</b>	PROCESS
	KET-A222-01 BASIC ENGINEERING DESIGN DATA	
	KET-A222-02 PROCESS EVALUATION	
	KET-A222-03 PROCESS TECHNICAL DESIGN	
4	<b>KET-A223 BASIS OF PROCESS ENGINEERING</b>	PROCESS
	KET-A223-01 DESIGN CONDITION	
	KET-A223-02 PROCESS MATERIAL SELECTION	
	KET-A223-03 COMPUTER PROGRAM	
	KET-A223-04 PROCESS DATA PREPARATION	
	KET-A223-05 PERFORMANCE GUARANTEE	
	KET-A223-06 PROCESS CONTROL SCHEMES	
5	<b>KET-A224 PROCESS PIPING</b>	PROCESS
	KET-A224-01 RESTRICTION ORIFICE	
	KET-A224-02 GUIDE TO VALVE SELECTION	
	KET-A224-03 WINTERIZATION AND CONDENSATE RECOVERY SYSTEM	
6	<b>KET-A225 PREPARATION OF P &amp; ID</b>	PROCESS
	KET A225-01 PREPARATION PROCESS FLOW DIAGRAM (PFD)	
	KET A225-02 EXECUTION PROCEDURE OF PIPING & INSTRUMENT DIAGRAM (PID)	
	KET A225-03 DRAWING STANDARD FOR P & ID PREPARATION	
	KET A225-04 DESIGN CRITERIA FOR P & ID PREPARATION	
	KET A225-05 PREPARATION OF PROCESS OPERATION DIAGRAM	
7	<b>KET-A226 OPERATION MANUAL</b>	PROCESS
8	<b>KET-A227 FIRE PROTECTION</b>	PROCESS
	KET-A227-01 ENGINEERING PROCEDURE FOR FIRE PROTECTION	
	KET-A227-02 CALCULATION FOR FIRE PROTECTION	
	KET-A227-03 FIRE PROTECTION LAYOUT	
	KET-A227-04 PROJECT SPECIFICATION FOR FIRE PROTECTION	
	KET-A227-05 DATA SHEET FOR FIRE PROTECTION	
	KET-A227-06 DESIGN MANUAL FOR FIRE PROTECTION	
	KET-A227-07 FIRE FIGHTING SYSTEM	
9	<b>KET-A228 PROCESS INSTRUMENTATION</b>	PROCESS
	KET A228-01 PREPARATION OF INSTRUMENT DATA	
	KET A228-02 PREPARATION OF LEVEL CONTROL & LEVEL GAUGE ARRANGEMENT	
	KET A228-03 CONTROL VALVE	
10	<b>KET-A229 VENDOR EVALUATION</b>	PROCESS
11	<b>KET-A230 HEAT TRANSFER</b>	PROCESS
	KET A230-01 SHELL AND TUBE HEAT EXCHANGERS	
	KET A230-02 AIR COOLED HEAT EXCHANGERS	
	KET A230-03 FURNACES	
12	<b>KET-A231 SAFEGUARDING SYSTEM</b>	PROCESS
	KET-A231-01 PRESSURE RELIEVING DESIGN	

# TRAINING AND COURSES

KET-A231-02 FLARE AND BLOWDOWN SYSTEM		
KET-A231-03 EMERGENCY MEASURES FOR PROCESS UNIT		
KET-A231-04 PRESSURE RELIEF DEVICES		
KET-A231-05 HAZOP (HAZARDOUS AND OPERATION STUDY)		
KET-A231-06 HAZARDOUS AREA CLASSIFICATION		
KET-A231-07 PROCESS SAFEGUARDING FLOW SCHEME		
<b>13 KET-A232 PLANT LAYOUT AND ENVIRONMENT</b>	<b>PROCESS</b>	
KET A232-01 NOISE CONTROL		
KET A232-02 PLANT LAYOUT FOR BASIC DESIGN ENGINEERING		
KET A232-03 ENGINEERING MODEL REVIEW		
<b>14 KET-A233 UTILITY AND OFF SITE MANUAL</b>	<b>PROCESS</b>	
<b>KET-A310 CIVIL ENGINEERING</b>		
<b>NO</b>	<b>TRAINING TITLE</b>	<b>DISCIPLINE</b>
<b>1</b>	<b>KET-A310 GENERAL CIVIL</b>	<b>CIVIL</b>
KET-A310-01 CIVIL DESIGN CONTROL PROCEDURE		
KET-A310-02 ENGINEERING ACTIVITIES CIVIL		
KET-A310-03 DESIGN INFORMATION WITH OTHER DISCIPLINES		
KET-A310-04 CIVIL ENGINEERING MANUAL		
KET-A310-05 CIVIL DOCUMENT LIST		
KET-A310-06 CIVIL DRAFTING PRACTICE		
KET-A310-07 CIVIL ENGINEERING EXECUTION FLOW		
KET-A310-08 FIREPROOFING FOR STEEL STRUCTURES		
KET-A310-09 FOUNDATION EARTHWORK		
KET-A310-10 INSPECTION PROCEDURE		
<b>2 KET-A311 SOIL SURVEY</b>	<b>CIVIL</b>	
KET-A311-01 SURVEYING AND MAPPING		
KET-A311-02 SOIL INVESTIGATION		
KET-A311-03 OCEANOGRAPHIC SURVEY		
KET-A311-04 SOIL IMPROVEMENT		
<b>3 KET-A312 SITE FORMATION AND DEVELOPMENT</b>	<b>CIVIL</b>	
KET-A312-01 SITE FORMATION		
KET-A312-02 SITE DEVELOPMENT		
<b>4 KET-A313 CONCRETE</b>	<b>CIVIL</b>	
KET-A313-01 ANCHOR BOLTS		
KET-A313-02 CONCRETE WORK		
KET-A313-03 CONCRETE STACK		
<b>5 KET-A314 STANDARD PILE</b>	<b>CIVIL</b>	
KET-A314-01 PILE LOAD TEST		
KET-A314-02 REQUISITION FOR PILE		
KET-A314-03 STANDARD PILE HEAD		
<b>6 KET-A315 EARTH DIKE</b>	<b>CIVIL</b>	
<b>7 KET-A316 UNDERGROUND FACILITIES</b>	<b>CIVIL</b>	
KET-A316-01 DRAINAGE		
KET-A316-02 CATCH BASIN		
KET-A316-03 CLEANOUT		
KET-A316-04 DRIP FUNNEL		
KET-A316-05 PREPARATION OF UNDERGROUND FACILITY DESIGN		
KET-A316-06 ASPHALT PROTECTIVE COATING		
<b>8 KET-A317 FENCE AND GATE</b>	<b>CIVIL</b>	
<b>9 KET-A318 ASPHALT ROAD AND AREA PAVING WORK</b>	<b>CIVIL</b>	
<b>10 KET-A319 MARINE AND MOORING FACILITIES</b>	<b>CIVIL</b>	
KET-A319-01 WELL DRILLING		
KET-A319-02 MARINE FACILITY		
KET-A319-03 SELECTION PIPE		
KET-A319-04 DREDGING WORK		
KET-A319-05 MOORING FACILITY		
<b>11 KET-A320 FOUNDATION</b>	<b>CIVIL</b>	
KET-A320-01 FOUNDATION STAIRWAY AND LADDER		
KET-A320-02 MEASUREMENT FOUNDATION		
<b>12 KET-A321 STEEL STRUCTURE</b>	<b>CIVIL</b>	
KET-A321-01 STANDARD CHECK SHEET		
KET-A321-02 DESIGN TABLE TYPE STRUCTURE		
KET-A321-03 SHOP FABRICATION		
KET-A321-04 REQUISITION FOR STEEL		

KET-A321-05 FLOOR GRATING		
KET-A321-06 BASIC REQUIREMENT		
KET-A321-07 ERECTION STEEL STRUCTURE		
<b>13 KET-A322 CIVIL RETAINING WALL SPECIFICATION</b>	<b>CIVIL</b>	
<b>14 KET-A323 DESIGN FOUNDATION</b>	<b>CIVIL</b>	
KET-A323-01 PREPARATION FOUNDATION DESIGN		
KET-A323-02 PILE FOUNDATION DESIGN		
KET-A323-03 FOUNDATION DESIGN TOWER AND VERTICAL DRUM		
KET-A323-04 FOUNDATION DESIGN VERTICAL CYLINDRICAL		
KET-A323-05 FOUNDATION DESIGN HORIZONTAL VESSEL		
<b>15 KET-A324 STANDARD DRAWING</b>	<b>CIVIL</b>	
KET-A324-01 STANDARD DRAWING FOR HANDLE OF PIT COVER		
KET-A324-02 STANDARD DWG. FOR STEP EMBEDDED IN CONCRETE SEWER BOX		
KET-A324-03 STANDARD DRAWING FOR BAR BENDING		
KET-A324-04 STANDARD DRAWING FOR RC OIL DIKE		
KET-A324-05 STANDARD DRAWING FOR EXPANSION JOINT		
KET-A324-06 STANDARD DRAWING FOR STAIRCASE		
<b>16 KET-A325 DESIGN DRAWING CIVIL</b>	<b>CIVIL</b>	
KET-A325-01 STAIRWAY AND LADDER		
KET-A325-02 HANDRAIL		
KET-A325-03 BOLT CONNECTION		
KET-A325-04 WELDED CONNECTION		
KET-A325-05 FLOORING AND JOIST		
KET-A325-06 SINGLE BEVEL		
<b>17 KET-A326 BUILDING CIVIL</b>	<b>CIVIL</b>	
KET-A326-01 STANDARD CHECK SHEET BUILDING		
KET-A326-02 BUILDING SPECIFICATION		
KET-A326-03 BUILDING STANDARD PROCEDURE		
KET-A326-04 STANDARD DESIGN BUILDING		
<b>KET-A330 MECHANICAL ENGINEERING</b>		
<b>NO</b>	<b>TRAINING TITLE</b>	<b>DISCIPLINE</b>
<b>1</b>	<b>KET-A330 STATIC EQUIPMENT</b>	<b>MECHANICAL</b>
KET-A330-01 TANK MIXING		
KET-A330-02 REACTOR		
KET-A330-03 TOWER		
KET-A330-04 DRUM		
KET-A330-05 ATMOSPHERIC STORAGE TANK		
KET-A330-06 HIGH PRESSURE STORAGE TANK		
KET-A330-07 REFRIGERATED STORAGE TANK		
KET-A330-08 AGITATED VESSEL		
KET-A330-09 INLINE MIXING		
KET-A330-10 VACUUM EQUIPMENT		
<b>2 KET-A340 ROTARY MACHINERY</b>	<b>MECHANICAL</b>	
KET-A340-01 PUMP		
KET-A340-02 COMPRESSOR		
KET-A340-03 STEAM TURBINE		
KET-A340-04 GAS EXPANDER		
KET-A340-05 FAN AND BLOWER		
KET-A340-06 GAS TURBINE		
KET-A340-07 HYDRAULIC		
KET-A340-08 LIQUID SURGE ANALYSIS		
<b>3 KET-A350 COMBUSTION</b>	<b>MECHANICAL</b>	
KET-A350-01 BOILER		
KET-A350-02 FURNACE		
KET-A350-03 FLARE STACK		
<b>KET-A360 PIPING ENGINEERING</b>		
<b>NO</b>	<b>TRAINING TITLE</b>	<b>DISCIPLINE</b>
<b>1</b>	<b>KET-A360 GENERAL PIPING</b>	<b>PIPING</b>
KET-A360-01 PLAN FOR PRACTICAL USE OF PIPING		
KET-A360-02 SPLIT OF WORK WITH OTHER DISCIPLINES		
KET-A360-03 EXECUTION PROCEDURE FOR PIPING DESIGN ENGINEERING		
KET-A360-04 EXECUTION FLOW OF PIPING		
<b>2 KET-A361 PIPING DESIGN</b>	<b>PIPING</b>	
KET-A361-01 PIPING DESIGN		

# TRAINING AND COURSES

KET-A361-02 PIPING LINE INDEX		
KET-A361-03 PIPING TIE IN LIST		
KET-A361-04 PACKAGE UNIT		
<b>3 KET-A362 PIPING PROCEDURE</b>	<b>PIPING</b>	
KET-A362-01 PREPARATION PROCEDURE FOR LINE INDEX		
KET-A362-02 PREPARATION PROCEDURE FOR PIPING FIELD		
KET-A362-03 PIPING CALCULATION PROCEDURE		
KET-A362-04 PROCEDURE EQUIPMENT		
<b>4 KET-A363 PIPING CALCULATION AND ANALYSIS</b>	<b>PIPING</b>	
KET-A363-01 LOADING CALCULATION		
KET-A363-02 STRESS ANALYSIS FOR PIPING SYSTEM		
KET-A363-03 CALCULATION CONTROL SHEET		
<b>5 KET-A364 PIPING STANDARD DRAWING</b>	<b>PIPING</b>	
KET-A364-01 NOZZLE		
KET-A364-02 BOSSES		
KET-A364-03 FLANGE		
KET-A364-04 NIPPLE		
KET-A364-05 THERMOWELL		
KET-A364-06 COOLER		
KET-A364-07 STRAINER		
KET-A364-08 SEPARATOR		
KET-A364-09 BEND		
KET-A364-10 HOSE		
KET-A364-11 RING		
KET-A364-12 COPEER TUBE		
<b>6 KET-A365 PIPING SUPPORT</b>	<b>PIPING</b>	
KET-A365-01 PIPE SUPPORT		
KET-A365-02 HANGER SUPPORT		
KET-A365-03 ANGLE SUPPORT		
KET-A365-04 HEAT AND COLD INSULATION SUPPORT		
KET-A365-05 ANTI VIBRATION SUPPORT		
KET-A365-06 PIPING STRUCTURAL ANALYSIS		
<b>7 KET-A366 PIPING LAYOUT</b>	<b>PIPING</b>	
KET-A366-01 CHECK LIST FOR PIPING LAYOUT		
KET-A366-02 EXECUTION PROCEDURE FOR PIPING LAYOUT		
KET-A366-03 PIPING DIMENSION		
KET-A366-04 DESIGN CRITERIA FOR PIPING ARRANGEMENT		
KET-A366-05 DESIGN GUIDE FOR PIPING ARRANGEMENT		
KET-A366-06 DESIGN WORK FLOW FOR PIPING ARRANGEMENT		
KET-A366-07 DRAWING PRACTICE FOR PIPING		
KET-A366-08 PIPING INFORMATION		
<b>8 KET-A367 PIPING MATERIAL</b>	<b>PIPING</b>	
KET-A367-01 PROCEDURE PIPING MATERIAL REQUISITION		
KET-A367-02 PIPING MATERIAL ENGINEERING		
KET-A367-03 PIPING MATERIAL SPECIFICATION		
<b>9 KET-A368 PIPING MATERIAL TAKE OFF</b>	<b>PIPING</b>	
KET-368-01 PIPING JOB DATA BMBQ (BILL OF MATERIAL & BILL OF QUANTITY)		
KET-368-02 OPERATION MANUAL MATERIAL TAKE OFF SYSTEM		
<b>KET-A370 INSTRUMENT ENGINEERING</b>		
NO	TRAINING TITLE	DISCIPLINE
<b>1</b>	<b>KET-A370 GENERAL INSTRUMENT</b>	<b>INSTRUMENT</b>
KET-A370-01	GUIDANCE INSTRUMENT ENGINEERING	
KET-A370-02	SOW BETWEEN INSTRUMENT & OTHERS DISCIPLINES	
KET-A370-03	PREPARATION INFORMATION FOR INSTRUMENT	
KET-A370-04	GENERAL SPECIFICATION INSTRUMENTATION	
KET-A370-05	INSTRUMENT EXECUTION FLOW AND PROCEDURE	
KET-A370-06	INSTRUMENT CODE AND STANDARD	
KET-A370-07	INSTRUMENT FORM	
KET-A370-08	INSTRUMENT CHECK SHEET	
KET-A370-09	INSTRUMENT INSTRUCTION	
KET-A370-10	CONCEPTUAL INSTRUMENTATION	
KET-A370-11	GENERATION DATA	
<b>2</b>	<b>KET-A371 CONTROL SYSTEM</b>	<b>INSTRUMENT</b>
KET-A371-01	GUIDANCE DISTRIBUTION CONTROL SYSTEM (DCS)	

KET-A371-02 EMERGENCY SHUTDOWN SYSTEM		
KET-A371-03 CONTROL SYSTEM		
KET-A371-04 FIRE AND GAS SYSTEM		
KET-A371-05 CAUSE AND EFFECT CHART		
KET-A371-06 LOCAL PANEL		
KET-A371-07 SPECIFICATION INSTRUMENT CONTROL		
KET-A371-08 GUIDANCE CONTROL SYSTEM		
<b>3 KET-A372 INSTRUMENT MEASUREMENT</b>	<b>INSTRUMENT</b>	
KET-A372-01 PREPARATION AND GUIDANCE INSTRUMENT CONTROL		
KET-A372-02 ORIFICE CALCULATION		
<b>4 KET-A373 INSTRUMENT CONTROL</b>	<b>INSTRUMENT</b>	
KET-A373-01 INSTRUMENT STANDARD DRAWING		
KET-A373-02 INSTRUMENT SPECIFICATION		
KET-A373-03 INSTRUMENT MEASUREMENT		
KET-A373-04 DESIGN CRITERIA MEASUREMENT CONTROL		
<b>5 KET-A374 CONTROL VALVE</b>	<b>INSTRUMENT</b>	
KET-A374-01 CONTROL VALVE DESIGN		
KET-A374-02 DESIGN CRITERIA VALVE		
KET-A374-03 SAMPLE SPECIFICATION		
KET-A374-04 SAFETY RELIEF		
KET-A374-05 REQUISITION ANALYZER AND CONTROL VALVE		
KET-A374-06 CONTROL VALVE TECHNICAL BID EVALUATION		
KET-A374-07 VENDOR DOCUMENT REVIEW CONTROL VALVE		
<b>6 KET-A375 ANALYZER</b>	<b>INSTRUMENT</b>	
KET-A375-01 PREPARATION INFORMATION ANALYZER		
KET-A375-02 SPECIFICATION ANALYZER		
KET-A375-03 SPECIFICATION DETECTOR		
KET-A375-04 SPECIFICATION VALVE		
KET-A375-05 SPECIFICATION MONITORING SYSTEM		
<b>7 KET-A376 FIRE MONITORING AND DETECTION</b>	<b>INSTRUMENT</b>	
KET-A376-01 MONITORING SYSTEM		
KET-A376-02 METERING SYSTEM		
KET-A376-03 CONTROL SYSTEM		
KET-A376-04 GAS DETECTION SYSTEM		
KET-A376-05 DETECTION EQUIPMENT SYSTEM		
<b>8 KET-A377 INSTALLATION DESIGN INSTRUMENT</b>	<b>INSTRUMENT</b>	
KET-A377-01 PREPARATION GUIDANCE		
KET-A377-02 INSTALLATION DRAWING FOR INSTRUMENT		
KET-A377-03 DESIGN GUIDANCE DRAWING		
KET-A377-04 INSTRUMENT FORM BILL OF QUANTITY		
KET-A377-05 SAMPLE REQUISITION INSTRUMENT		
KET-A377-06 INSTRUMENT WORK		
KET-A377-07 INSTRUMENT TEST		
KET-A377-08 INSTRUMENT DESIGN		
KET-A377-09 SAMPLE DRAWING FOR INSTRUMENT		
KET-A377-10 INSTRUMENT SAMPLE SPECIFICATION		
<b>KET-A380 ELECTRICAL ENGINEERING</b>		
NO	TRAINING TITLE	DISCIPLINE
<b>1</b>	<b>KET-A380 ELECTRICAL COMMON</b>	<b>ELECTRICAL</b>
KET-A380-00	GENERAL ELECTRICAL COMMON	
KET-A380-01	KEY LINE DIAGRAM	
KET-A380-02	HAZARDOUS AREA CLASSIFICATION STUDY	
KET-A380-03	TYPICAL INST. DETAILS FOR POWER GEN. & SUBSTATION WORK	
KET-A380-04	TYPICAL INST. DETAILS FOR POWER WORK	
KET-A380-05	TYPICAL INST. DETAILS FOR LIGHTING WORK	
KET-A380-06	TYPICAL INST. DETAILS FOR EARTHING AND LIGHTNING WORK	
KET-A380-07	ELECTRICAL GENERAL SPECIFICATION	
KET-A380-08	DEDD (DETAIL ENGINEERING DESIGN DATA)	
KET-A380-09	CONSTRUCTION SPECIFICATION	
KET-A380-10	ELECTRICAL REQUIREMENT FOR PACKAGE EQUIPMENT	
KET-A380-11	ELECTRICAL COMMON	
<b>2</b>	<b>KET-A381 POWER GENERATION &amp; SUBSTATION DESIGN</b>	<b>ELECTRICAL</b>
KET-A381-00	GENERAL POWER GENERATION AND SUBSTATION DESIGN	
KET-A381-01	EQUIPMENT LAYOUT IN SUBSTATION	

# TRAINING AND COURSES

KET-A381-02 ANALYSIS OF ELECTRICAL POWER SYSTEM	
KET-A381-03 ONE LINE DIAGRAM AND POWER SYSTEM DESIGN	
KET-A381-04 MOTOR SPECIFICATION AND DATA SHEET	
KET-A381-05 GENERATOR CAPACITY CALCULATION AND SPECIFICATION	
KET-A381-06 POWER TRANSFORMER CALCULATION, SPECIFICATION & DATA SHEET	
KET-A381-07 POWER CAPACITOR CALCULATION, SPECIFICATION & DATA SHEET	
KET-A381-08 SWITCHGEAR SPECIFICATION & DATA SHEET	
KET-A381-09 MOTOR CONTROL CENTER SPECIFICATION AND DATA SHEET	
KET-A381-10 DISTRIBUTION BOARD SPECIFICATION AND DATA SHEET	
KET-A381-11 UPS CAPACITY AND SPECIFICATION	
KET-A381-12 DC POWER SUPPLY SYSTEM SPECIFICATION	
KET-A381-13 NEUTRAL EARTHING RESISTOR	
KET-A381-14 ELECTRICAL LOAD DATA CALCULATION	
KET-A381-15 SHORT CIRCUIT CALCULATION	
KET-A381-16 MOTOR STARTING STUDY	
KET-A381-17 RE-ACCELERATION MOTOR STUDY	
KET-A381-18 PROTECTIVE RELAY COORDINATION STUDY	
KET-A381-19 LOAD SHEDDING STUDY	
KET-A381-20 VOLTAGE DROP & LOAD FLOW STUDY	
KET-A381-21 ANNUNCIATOR PANEL	
KET-A381-22 BUS DUCT CALCULATION & SPECIFICATION	
KET-A381-23 ELECTRICAL INTERFACE TO DCS	
<b>3 KET-A382 POWER SYSTEM</b>	<b>ELECTRICAL</b>
KET-A382-01 CABLE SIZE CALCULATION MEDIUM VOLTAGE AND LOW VOLTAGE	
KET-A382-02 CABLE TRAY CALCULATION	
KET-A382-03 CABLE TRENCHES DESIGN	
KET-A382-04 DUCT BANK DESIGN	
KET-A382-05 POWER WIRING LAYOUT	
KET-A382-06 CABLE WAY LAYOUT	
KET-A382-07 CABLE CONNECTION DIAGRAM AND SCHEMATIC DIAGRAM	
KET-A382-08 CABLE SCHEDULE	
KET-A382-09 CABLE DRUM SCHEDULE	
KET-A382-10 CONTROL STATION AND POWER OUTLET DATA SHEET	
KET-A382-11 ELECTRICAL CABLE SPECIFICATION	
KET-A382-12 BULK MATERIAL DATA SHEET AND SPECIFICATION	
KET-A382-13 VOLTAGE DROP IN CABLES	
KET-A382-14 TECHNICAL BID EVALUATION CABLE	
KET-A382-15 BILL OF MATERIAL FOR CABLE AND BULK MATERIAL	
KET-A382-16 POWER SYSTEM DESIGN	
<b>4 KET-A383 LIGHTING SYSTEM</b>	<b>ELECTRICAL</b>
KET-A383-01 LIGHTING FIXTURE SPECIFICATION AND DATA SHEET	
KET-A383-02 LIGHTING ILLUMINATION LEVEL CALCULATION	
KET-A383-03 LIGHTING LAYOUT	
KET-A383-04 LIGHTING PANEL SCHEDULE	
<b>5 KET-A384 EARTHING &amp; LIGHTNING PROTECTION SYSTEM</b>	<b>ELECTRICAL</b>
KET-A384-01 GENERAL EARTHING AND LIGHTNING PROTECTION	
KET-A384-02 LIGHTNING PROTECTION DRAWING AND BILL OF MATERIAL	
KET-A384-03 EARTHING LAYOUT AND BILL OF MATERIAL	
KET-A384-04 EARTHING PHILOSOPHY AND SPECIFICATION	
KET-A384-05 LIGHTNING PROTECTION CALCULATION	
KET-A384-06 GROUNDING CALCULATION	
<b>6 KET-A385 FIRE ALARM &amp; GAS DETECTION SYSTEM</b>	<b>ELECTRICAL</b>
KET-A385-01 GENERAL FIRE ALARM AND GAS DETECTION	
KET-A385-02 FIRE ALARM AND GAS DETECTION SYSTEM	
KET-A385-03 FIRE ALARM CONCEPT AND FIRE FIGHTING SYSTEM	
KET-A385-04 CABLE SCHEDULE AND CONNECTION DIAGRAM FOR FIRE ALARM	
KET-A385-05 INSTALLATION DETAIL FOR FIRE ALARM	
<b>7 KET-A386 COMMUNICATION SYSTEM</b>	<b>ELECTRICAL</b>
KET-A386-01 GENERAL COMMUNICATION SYSTEM	
KET-A386-02 COMMUNICATION SYSTEM DESIGN	
KET-A386-03 TELEPHONE SYSTEM LAYOUT	
KET-A386-04 PAGING, LOAD SPEAKER AND RADIO SYSTEM LAYOUT	
KET-A386-05 LOCAL AREA NETWORK (LAN) SYSTEM	
KET-A386-06 CLOSED CIRCUIT TELEVISION (CCTV) SYSTEM	

KET-A386-07 CABLE SCHEDULE & CONNECTION DIA. COMMUNICATION SYSTEM	
KET-A386-08 FIBER OPTIC CONCEPT AND INSTALLATION	
KET-A386-09 INSTALLATION DETAIL FOR COMMUNICATION SYSTEM	
<b>8 KET-A387 CATHODIC PROTECTION SYSTEM</b>	<b>ELECTRICAL</b>
KET-A387-01 IMPRESSED CURRENT SYSTEM	
KET-A387-02 SACRIFICIAL ANODE SYSTEM	
KET-A387-03 TRANSFORMER RECTIFIER SPECIFICATION	
KET-A387-04 CATHODIC PROTECTION CALCULATION AND CONCEPT	
KET-A387-05 CATHODIC PROTECTION LAYOUT	
KET-A387-06 INSTALLATION DETAIL CATHODIC PROTECTION	
KET-A387-07 CABLE SCHEDULE FOR CATHODIC PROTECTION	
KET-A387-08 CONNECTION DIAGRAM FOR CATHODIC PROTECTION	
<b>9 KET-A388 ELECTRICAL HEAT TRACING</b>	<b>ELECTRICAL</b>
KET-A388-01 GENERAL ELECTRICAL HEAT TRACE SYSTEM	
KET-A388-02 HEAT TRACING CALCULATION	
KET-A388-03 LAYOUT FOR ELECTRICAL HEATER	
KET-A388-04 INSTALLATION DETAIL FOR HEAT TRACING	
KET-A388-05 HEAT TRACING CABLE SCHEDULE	
KET-A388-06 CONNECTION DIAGRAM FOR HEAT TRACING	
<b>10 KET-A389 SOFTWARE ELECTRICAL ANALYSIS STUDY</b>	<b>ELECTRICAL</b>
KET-A389-01 HEATING VENTILATION AIR CONDITIONING (HVAC) DESIGN	
KET-A389-02 ELECTRIC TRANSIENT AND ANALYSIS PROGRAM (ETAP)	
KET-A389-03 ACCESS DATABASE AND EXCELL PROGRAMMING	
KET-A389-04 PDMS, PDS, SMART PLANT FOR ELECTRICAL AND AUTOCAD	
KET-A389-05 ELECTRICAL CODE AND STANDARD	
KET-A389-06 AIR CRAFT WARNING LIGHT REGULATION	

## KET-B000 PROCUREMENT

NO	TRAINING TITLE	DISCIPLINE
1	KET-B001 SHOP INSPECTION PROCEDURE	PROCUREMENT
2	KET-B002 FACTORY WITNESS INSPECTION PROCEDURE	PROCUREMENT
3	KET-B003 SCOPE OF INSPECTION FOR ELECTRICAL	PROCUREMENT
4	KET-B004 SCOPE OF INSPECTION FOR EQUIPMENT	PROCUREMENT

## KET-C000 CONSTRUCTION

NO	TRAINING TITLE	DISCIPLINE
1	KET-C000 CONSTRUCTION	CONSTRUCTION

## KET-D000 COMMISSIONING

NO	TRAINING TITLE	DISCIPLINE
1	KET-D000 COMMISSIONING	COMMISSIONING

## KET-E000 PROPOSAL

NO	TRAINING TITLE	DISCIPLINE
1	KET-E000 GENERAL PROPOSAL	PROPOSAL
2	KET-E001 OWNER COMPANY	PROPOSAL
3	KET-E002 EPC COMPANY	PROPOSAL
4	KET-E003 OIL & GAS PROJECT	PROPOSAL
5	KET-E004 CHEMICAL PROJECT	PROPOSAL
6	KET-E005 PETROCHEMICAL PROJECT	PROPOSAL
7	KET-E006 ENERGY PROJECT	PROPOSAL
8	KET-E007 MINERAL PROJECT	PROPOSAL
9	KET-E008 OFFSHORE PROJECT	PROPOSAL
10	KET-E009 CRUDE PALM OIL (CPO) PLANTATION	PROPOSAL
11	KET-E010 SUGAR PLANT	PROPOSAL
12	KET-E011 STEEL FACTORY	PROPOSAL
13	KET-E012 PULP AND PAPER PLANT	PROPOSAL
14	KET-E013 CEMENT PLANT	PROPOSAL
15	KET-E014 HIGH RISE BUILDING	PROPOSAL
16	KET-E015 FERTILIZER PLANT	PROPOSAL
17	KET-E016 FOOD AND BEVERAGE FACTORY	PROPOSAL
18	KET-E017 POWER PLANT	PROPOSAL
19	KET-E018 RAILWAY PLANT	PROPOSAL
20	KET-E019 STEEL FABRICATOR	PROPOSAL
21	KET-E020 PLASTIC PLANT	PROPOSAL
22	KET-E021 INFRASTRUCTURE PROJECT	PROPOSAL
23	KET-E022 COAL POWER PLANT	PROPOSAL
24	KET-E023 PIPELINE PROJECT	PROPOSAL



NO	TRAINING MATERIAL	DURATION	PRICE	DISCIPLINE	VENUE	CITY	DATE
<b>JANUARY</b>							
1	KET-A310 BASIC CIVIL ENGINEERING	4	IDR 11.500.000	CIVIL	GRAND ASTON HOTEL GONDOKUSUMAN	YOGYAKARTA	2-5
2	KET-A220 BASIC PROCESS ENGINEERING	4	IDR 11.500.000	PROCESS	SWISS BELINN HOTEL SIMATUPANG	JAKARTA	8-11
3	KET-A380 BASIC ELECTRICAL ENGINEERING	4	USD 1.800	ELECTRICAL	GRAND MERCURE ROXY HOTEL	SINGAPORE	16-18
4	KET-A311 SOIL SURVEY	2	IDR 6.000.000	CIVIL	THE LUXTON DAGO HOTEL	BANDUNG	20-21
5	KET-B001 SHOP INSPECTION PROCEDURE	3	IDR 8.500.000	PROCUREMENT	HARRIS HOTEL KUTA GALLERIA	BALI	22-24
6	KET-A360 BASIC PIPING ENGINEERING	4	IDR 11.500.000	PIPING	AMAROOSA HOTEL	BOGOR	27-30
7	KET-A130 EXECUTION PLAN	2	USD 900	PROJECT MANAGEMENT	SERI PACIFIC HOTEL	KUALA LUMPUR	30-31
<b>FEBRUARY</b>							
1	KET-A221 BASIC DESIGN PROCEDURE	2	IDR 6.000.000	PROCESS	GRAND ASTON HOTEL GONDOKUSUMAN	YOGYAKARTA	3-4
2	KET-A330 STATIC EQUIPMENT	3	IDR 8.500.000	MECHANICAL	SWISS BELINN HOTEL SIMATUPANG	JAKARTA	5-7
3	KET-A370 BASIC INSTRUMENT ENGINEERING	4	USD 1.800	INSTRUMENT	GRAND MERCURE ROXY HOTEL	SINGAPORE	10-13
4	KET-A312 SITE FORMATION AND DEVELOPMENT	2	IDR 6.000.000	CIVIL	THE LUXTON DAGO HOTEL	BANDUNG	14-15
5	KET-A381 POWER GENERATION & SUBSTATION DESIGN	4	IDR 11.500.000	ELECTRICAL	HARRIS HOTEL KUTA GALLERIA	BALI	18-21
6	KET-0222 BASIC ENGINEERING DESIGN DATA (BEDD)	2	IDR 6.000.000	PROCESS	AMAROOSA HOTEL	BOGOR	24-25
7	KET-A313 CONCRETE	2	USD 900	CIVIL	SERI PACIFIC HOTEL	KUALA LUMPUR	27-28
<b>MARCH</b>							
1	KET-A140 PROCEDURE DOCUMENT	2	IDR 6.000.000	PROJECT MANAGEMENT	GRAND ASTON HOTEL GONDOKUSUMAN	YOGYAKARTA	2-3
2	KET-A210 GENERAL HEALTH, SAFETY AND ENVIRONMENT	2	IDR 6.000.000	HEALTH, SAFETY & ENVIRONMENT	SWISS BELINN HOTEL SIMATUPANG	JAKARTA	4-5
3	KET-0223 BASIS OF PROCESS ENGINEERING	2	USD 900	PROCESS	GRAND MERCURE ROXY HOTEL	SINGAPORE	6-7
4	KET-A224 PROCESS PIPING	2	IDR 6.000.000	PROCESS	THE LUXTON DAGO HOTEL	BANDUNG	10-11
5	KET-A314 STANDARD PILE	2	IDR 6.000.000	CIVIL	HARRIS HOTEL KUTA GALLERIA	BALI	17-18
6	KET-A316 UNDERGROUND FACILITIES	2	IDR 6.000.000	CIVIL	AMAROOSA HOTEL	BOGOR	23-24
7	KET-A361 PIPING DESIGN	2	USD 900	PIPING	SERI PACIFIC HOTEL	KUALA LUMPUR	26-27
<b>APRIL</b>							
1	KET-A365 PIPE SUPPORT	2	IDR 6.000.000	PIPING	GRAND ASTON HOTEL GONDOKUSUMAN	YOGYAKARTA	1-2
2	KET-A225 REPAIRATION OF P & ID	2	IDR 6.000.000	PROCESS	SWISS BELINN HOTEL SIMATUPANG	JAKARTA	3-4
3	KET-A340 ROTARY MACHINERY	3	USD 1.350	MECHANICAL	GRAND MERCURE ROXY HOTEL	SINGAPORE	7-9
4	KET-A317 FENCE AND GATE	2	IDR 6.000.000	CIVIL	THE LUXTON DAGO HOTEL	BANDUNG	13-14
5	KET-A315 EARTH DIKE	2	IDR 6.000.000	CIVIL	HARRIS HOTEL KUTA GALLERIA	BALI	15-16
6	KET-A362 PIPING PROCEDURE	2	IDR 6.000.000	PIPING	AMAROOSA HOTEL	BOGOR	17-18
7	KET-A150 BID DOCUMENT	3	USD 1.350	PROJECT MANAGEMENT	SERI PACIFIC HOTEL	KUALA LUMPUR	17-18
<b>MAY</b>							
<b>RAMADHAN &amp; IDUL FITRI 1443 H</b>							
<b>JUNE</b>							
1	KET-A383 LIGHTING SYSTEM	2	IDR 6.000.000	ELECTRICAL	GRAND ASTON HOTEL GONDOKUSUMAN	YOGYAKARTA	9-10
2	KET-A363 PIPING CALCULATION AND ANALYSIS	2	IDR 6.000.000	PIPING	SWISS BELINN HOTEL SIMATUPANG	JAKARTA	11-12
3	KET-A226 OPERATION MANUAL	2	USD 900	PROCESS	GRAND MERCURE ROXY HOTEL	SINGAPORE	15-16
4	KET-A215 HSE RISK MANAGEMENT	3	IDR 8.500.000	HEALTH, SAFETY & ENVIRONMENT	THE LUXTON DAGO HOTEL	BANDUNG	17-19
5	KET-A211 HSE PLAN	2	IDR 6.000.000	HEALTH, SAFETY & ENVIRONMENT	HARRIS HOTEL KUTA GALLERIA	BALI	22-23
6	KET-A384 EARTHING & LIGHTNING PROTECTION SYSTEM	2	IDR 6.000.000	ELECTRICAL	AMAROOSA HOTEL	BOGOR	25-26
7	KET-A318 ASPHALT ROAD AND AREA PAVING WORK	2	USD 900	CIVIL	SERI PACIFIC HOTEL	KUALA LUMPUR	29-30
<b>JULY</b>							
1	KET-A371 CONTROL SYSTEM	3	IDR 8.500.000	INSTRUMENT	GRAND ASTON HOTEL GONDOKUSUMAN	YOGYAKARTA	1-3
2	KET-A382 POWER SYSTEM	4	IDR 11.500.000	ELECTRICAL	SWISS BELINN HOTEL SIMATUPANG	JAKARTA	6-9
3	KET-B002 FACTORY WITNESS INSPECTION PROCEDURE	2	USD 900	PROCUREMENT	GRAND MERCURE ROXY HOTEL	SINGAPORE	13-14
4	KET-A227 FIRE PROTECTION	3	IDR 8.500.000	PROCESS	THE LUXTON DAGO HOTEL	BANDUNG	15-17
5	KET-A372 INSTRUMENT MEASUREMENT	2	IDR 6.000.000	INSTRUMENT	HARRIS HOTEL KUTA GALLERIA	BALI	20-21
6	KET-B003 SCOPE OF INSPECTION FOR ELECTRICAL	2	IDR 6.000.000	PROCUREMENT	AMAROOSA HOTEL	BOGOR	23-24
7	KET-B004 SCOPE OF INSPECTION FOR EQUIPMENT	4	USD 1.800	PROCUREMENT	SERI PACIFIC HOTEL	KUALA LUMPUR	27-30
<b>AUGUST</b>							
1	KET-A212 HSE PROCEDURE	2	IDR 6.000.000	HEALTH, SAFETY & ENVIRONMENT	GRAND ASTON HOTEL GONDOKUSUMAN	YOGYAKARTA	3-4
2	KET-A228 PROCESS INSTRUMENTATION	2	IDR 6.000.000	PROCESS	SWISS BELINN HOTEL SIMATUPANG	JAKARTA	6-7
3	KET-A364 PIPING STANDARD DRAWING	2	USD 900	PIPING	GRAND MERCURE ROXY HOTEL	SINGAPORE	10-11
4	KET-A373 INSTRUMENT CONTROL	2	IDR 6.000.000	INSTRUMENT	THE LUXTON DAGO HOTEL	BANDUNG	13-14
5	KET-A229 VENDOR EVALUATION	2	IDR 6.000.000	PROCESS	HARRIS HOTEL KUTA GALLERIA	BALI	18-19
6	KET-A319 MARINE AND MOORING FACILITIES	2	IDR 6.000.000	CIVIL	AMAROOSA HOTEL	BOGOR	24-25
7	KET-A385 FIRE ALARM & GAS DETECTION SYSTEM	2	USD 900	ELECTRICAL	SERI PACIFIC HOTEL	KUALA LUMPUR	27-28
<b>SEPTEMBER</b>							
1	KET-A320 FOUNDATION	2	IDR 6.000.000	CIVIL	GRAND ASTON HOTEL GONDOKUSUMAN	YOGYAKARTA	2-3
2	KET-E000 PROPOSAL	2	IDR 6.000.000	PROPOSAL	SWISS BELINN HOTEL SIMATUPANG	JAKARTA	7-8
3	KET-A230 HEAT TRANSFER	2	USD 900	PROCESS	GRAND MERCURE ROXY HOTEL	SINGAPORE	10-11
4	KET-C000 CONSTRUCTION	2	IDR 6.000.000	CONSTRUCTION	THE LUXTON DAGO HOTEL	BANDUNG	14-15
5	KET-A321 STEEL STRUCTURE	3	IDR 8.500.000	CIVIL	HARRIS HOTEL KUTA GALLERIA	BALI	16-18
6	KET-A366 PIPING LAYOUT	3	IDR 8.500.000	PIPING	AMAROOSA HOTEL	BOGOR	22-24
7	KET-A374 CONTROL VALVE	3	USD 1.350	INSTRUMENT	SERI PACIFIC HOTEL	KUALA LUMPUR	28-30
<b>OCTOBER</b>							
1	KET-A213 HSE SPECIFICATION	2	IDR 6.000.000	HEALTH, SAFETY & ENVIRONMENT	GRAND ASTON HOTEL GONDOKUSUMAN	YOGYAKARTA	1-2
2	KET-A231 SAFEGUARDING SYSTEM	3	IDR 8.500.000	PROCESS	SWISS BELINN HOTEL SIMATUPANG	JAKARTA	5-7
3	KET-A322 CIVIL SPECIFICATION	2	USD 900	CIVIL	GRAND MERCURE ROXY HOTEL	SINGAPORE	8-9
4	KET-A350 COMBUSTION	2	IDR 6.000.000	MECHANICAL	THE LUXTON DAGO HOTEL	BANDUNG	12-13
5	KET-D000 COMMISSIONING	2	IDR 6.000.000	COMMISSIONING	HARRIS HOTEL KUTA GALLERIA	BALI	15-16
6	KET-A386 COMMUNICATION SYSTEM	3	IDR 8.500.000	ELECTRICAL	AMAROOSA HOTEL	BOGOR	20-22
7	KET-A375 ANALYZER	2	USD 900	INSTRUMENT	SERI PACIFIC HOTEL	KUALA LUMPUR	27-28
<b>NOVEMBER</b>							
1	KET-A323 DESIGN FOUNDATION	2	IDR 6.000.000	CIVIL	GRAND ASTON HOTEL GONDOKUSUMAN	YOGYAKARTA	2-3
2	KET-A367 PIPING MATERIAL	2	IDR 6.000.000	PIPING	SWISS BELINN HOTEL SIMATUPANG	JAKARTA	5-6
3	KET-A368 PIPING MATERIAL TAKE OFF	2	USD 900	PIPING	GRAND MERCURE ROXY HOTEL	SINGAPORE	9-10
4	KET-A376 FIRE MONITORING AND DETECTION	2	IDR 6.000.000	INSTRUMENT	THE LUXTON DAGO HOTEL	BANDUNG	12-13
5	KET-A387 CATHODIC PROTECTION SYSTEM	3	IDR 8.500.000	ELECTRICAL	HARRIS HOTEL KUTA GALLERIA	BALI	17-19
6	KET-A324 STANDARD DRAWING	2	IDR 6.000.000	CIVIL	AMAROOSA HOTEL	BOGOR	23-24
7	KET-A214 HSE ECONOMIC	2	USD 900	HEALTH, SAFETY & ENVIRONMENT	SERI PACIFIC HOTEL	KUALA LUMPUR	26-27
<b>DECEMBER</b>							
1	KET-A325 DESIGN DRAWING CIVIL	2	IDR 6.000.000	CIVIL	GRAND ASTON HOTEL GONDOKUSUMAN	YOGYAKARTA	1-2
2	KET-A377 INSTALLATION DESIGN INSTRUMENT	3	IDR 8.500.000	INSTRUMENT	SWISS BELINN HOTEL SIMATUPANG	JAKARTA	7-9
3	KET-A388 ELECTRICAL HEAT TRACING	2	USD 900	ELECTRICAL	GRAND MERCURE ROXY HOTEL	SINGAPORE	10-11
4	KET-A389 ELECTRICAL ANALYSIS SYSTEM	2	IDR 6.000.000	ELECTRICAL	THE LUXTON DAGO HOTEL	BANDUNG	14-15
5	KET-A232 PLANT LAYOUT AND ENVIRONMENT	2	IDR 6.000.000	PROCESS	HARRIS HOTEL KUTA GALLERIA	BALI	17-18
6	KET-A340 BUILDING CIVIL	3	USD 1.350	CIVIL	SERI PACIFIC HOTEL	KUALA LUMPUR	21-23
7	KET-A233 UTILITY AND OFF SITE MANUAL	2	IDR 6.000.000	PROCESS	AMAROOSA HOTEL	BOGOR	28-29

# KET-A130 PROJECT MANAGEMENT



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 6.000.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 4 Days**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**



## AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Civil, Process, Piping, Electrical, Instrument & Mechanical for Oil & Gas Facilities, Refineries, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

## COURSE AGENDA

DAY 1	DAY 3
08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Project Execution Plan
10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Project Definition
11.30 – 12.30	Lunch and Pray
12.30 – 14.00	General Information
14.00 – 15.30	Project Master Schedule
15.30 – 15.45	Refreshment and Networking
15.45 – 17.00	Project S-Curve Progress Plan
DAY 2	DAY 4
08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Document Numbering Procedure
10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Master Document & Item List
11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Equipment & Piping Numbering Proc.
14.00 – 15.30	Comm. & Correspondence Procedure
15.30 – 15.45	Refreshment and Networking
15.45 – 17.00	Review and Approval Procedure
08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Project Coordination Procedure
10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Project Quality Procedure
11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Project Reporting & Document Control
14.00 – 15.30	Vendor List
15.30 – 15.45	Refreshment and Networking
15.45 – 17.00	Project Schedule
08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Instruction To Bid (ITB)
10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Instruction To Bid (ITB)
11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Cost Estimation
14.00 – 15.30	Cost Estimation
15.30 – 15.45	Refreshment and Networking
15.45 – 17.00	Bid Evaluation

## KET-A130

# EXECUTION PLAN



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 3.000.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 2 Days**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**



### AUDIENCE

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### COURSE OUTLINE

1. *Communication & Coordination*
2. *Document Preparation, Handling and Control*
3. *Project Definition and General Information*
4. *Quality Control*
5. *Project Organization*
6. *Project S-Curve and Progress Control*
7. *Constructability Review*

### COURSE AGENDA

DAY 1		DAY 2	
08.00 – 08.30	Registration and Prepare	08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Communication & Coordination	08.30 – 10.00	Project Organization
10.00 – 10.15	Refreshment and Networking	10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Document Prep., Handling & Control	10.15 – 11.30	Project S-Curve and Progress Control
11.30 – 12.30	Lunch and Pray	11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Project Definition & Gen. Information	12.30 – 14.00	Constructability Review
14.00 – 14.15	Refreshment and Networking	14.00 – 14.15	Refreshment and Networking
14.15 – 16.00	Quality Control	14.15 – 16.00	Constructability Review

# KET-A140 PROCEDURE DOCUMENT

Support by EPC Company :  
**PT TEKNIK KARYA INDUSTRI**  
 ENGINEERING & CONSTRUCTION CREATION  
[www.teknikkaryaindustri.com](http://www.teknikkaryaindustri.com)



**Practical Things,  
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 Exercises!**

**Price : Rp. 3.000.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 2 Days**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**



## AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Civil, Process, Piping, Electrical, Instrument & Mechanical for Oil & Gas Facilities, Refineries, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

## COURSE OUTLINE

1. Document Numbering Procedure
2. Equipment and Piping Numbering Procedure
3. Master Document and Item List
4. Project Coordination Procedure
5. Communication & Corres. Procedure
6. Project Reporting Procedure
7. Document Control Procedure
8. Progress Calculation and Reporting Procedure
9. Review and Approval Procedure
10. Project Quality Plan

## COURSE AGENDA

DAY 1		DAY 2	
08.00 – 08.30	Registration and Prepare	08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Document Numbering Procedure	08.30 – 10.00	Project Reporting Procedure
10.00 – 10.15	Refreshment and Networking	10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Equipment and Piping Num. Procedure	10.15 – 11.30	Document Control Procedure
11.30 – 12.30	Lunch and Pray	11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Master Document and Item List	12.30 – 14.00	Progress Calculation & Reporting Procedure
14.00 – 15.30	Project Coordination Procedure	14.00 – 15.30	Review and Approval Procedure
15.30 – 15.45	Refreshment and Networking	15.30 – 15.45	Refreshment and Networking
15.45 – 17.00	Communication and Corres. Procedure	15.45 – 17.00	Project Quality Plan

# KET-A150

# BID DOCUMENT



**Practical Things,  
 Case Studies and  
 Exercises!**

**Price : Rp. 3.000.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 2 Days**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**



## AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Civil, Process, Piping, Electrical, Instrument & Mechanical for Oil & Gas Facilities, Refineries, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

## COURSE OUTLINE

1. Vendor List
2. Bid Document Engineering Procurement Construction
3. Project Schedule Engineering Procurement Construction
4. Cost Estimation Engineering Procurement Construction
5. Bid Document PJIT (Perusahaan Jasa Inspeksi Teknis)
6. Cost Estimation PJIT (Perusahaan Jasa Inspeksi Teknis)
7. Bid Document Project Management Team
8. Cost Estimation Project Management Team

## COURSE AGENDA

DAY 1		DAY 2	
08.00 – 08.30	Registration and Prepare	08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Vendor List	08.30 – 10.00	Bid Document PJIT (Per. Jasa Insp. Teknis)
10.00 – 10.15	Refreshment and Networking	10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Bid Document EPC	10.15 – 11.30	Cost Estimation PJIT
11.30 – 12.30	Lunch and Pray	11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Project Schedule EPC	12.30 – 14.00	Bid Document Project Management Team
14.00 – 14.15	Refreshment and Networking	14.00 – 14.15	Refreshment and Networking
14.15 – 16.00	Cost Estimation EPC	14.15 – 16.00	Cost Estimation Project Management Team



## KET INSTRUCTOR



### Ahmad Yudistira

Senior Project Control Engineer



- © Over 19 years of extensive and progressive experience in Project Management field in the aspect Engineering, Procurement and Construction mainly in the area of Oil & Gas, Refinery Gas Plant, Storage Tanks, Project Quality System, Civil Construction, Materials Selection and Evaluation, Project Bid Packages and Bid Evaluation, Project Calculation/Budgeting. Proficient in most computer literatures and familiar with schedule software applied in the project.
- © Developing. Project Schedule, Developing Project Cash Flow, Reviewing Project Cost Estimates, Developing and Updating Project Report Detailing Status, Developing Work Breakdown Structure (WBS) for projects and allocating funding based upon direction from project manager, coordinating project funding updates and interface to others Discipline/Department.
- © Coordinate with Engineering, Procurement, Construction and Project Team to review the scope of work in terms of deliverables to be submitted to the client, to finalize schedule to be met and utilize resources required as per Contract.
- © Manage and co-ordinate the Project Services team, Project Management team on his assigned project and to build the team effort into an effective and efficient unit.

## peta lokasi



# KET-A210 HEALTH, SAFETY & ENVIRONMENT



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 6.000.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 4 Days**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**



## AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Civil, Process, Piping, Electrical, Instrument & Mechanical for Oil & Gas Facilities, Refineries, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

## COURSE AGENDA

DAY 1		DAY 3	
08.00 – 08.30	Registration and Prepare	08.00 – 08.30	Registration and Prepare
08.30 – 10.00	General HSE	08.30 – 10.00	HSE Scope of Work
10.00 – 10.15	Refreshment and Networking	10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	General HSE	10.15 – 11.30	HSE Scope of Work
11.30 – 12.30	Lunch and Pray	11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Office Health and Safety Plan	12.30 – 14.00	HSE Engineering Economics
14.00 – 15.30	Site Health, Safety and Environment	14.00 – 15.30	HSE Engineering Economics
15.30 – 15.45	Refreshment and Networking	15.30 – 15.45	Refreshment and Networking
15.45 – 17.00	Environment Risk Manag. Implement.	15.45 – 17.00	HSE Engineering Economics
DAY 2		DAY 4	
08.00 – 08.30	Registration and Prepare	08.00 – 08.30	Registration and Prepare
08.30 – 10.00	HSE Procedure	08.30 – 10.00	HSE Risk Management
10.00 – 10.15	Refreshment and Networking	10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Health and Safety Procedure Manual	10.15 – 11.30	HSE Risk Management
11.30 – 12.30	Lunch and Pray	11.30 – 12.30	Lunch and Pray
12.30 – 14.00	HSE System Procedure	12.30 – 14.00	HSE Risk Management
14.00 – 15.30	HSE System Procedure	14.00 – 15.30	HSE Risk Management
15.30 – 15.45	Refreshment and Networking	15.30 – 15.45	Refreshment and Networking
15.45 – 17.00	HSE Specification	15.45 – 17.00	HSE Risk Management

# KET-A210 GENERAL HEALTH, SAFETY & ENVIRONMENT



**Price** : Rp. 1.500.000,- per Pax  
**Venue** : Ruko de Valerian A No. 10 Grand Depok City, Depok  
**Duration**: 1 Day  
**Contact** : Krisna 08128865001 or Irmanto 08982333380

**Practical Things,  
Case Studies and  
Exercises!**



## AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Civil, Process, Piping, Electrical, Instrument & Mechanical for Oil & Gas Facilities, Refineries, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

## COURSE OUTLINE

1. *Safety Committees*
2. *Information to be Provided to the Committee*
3. *Responsibilities of Committee Representatives*
4. *Committee Authority*
5. *Committee Administration*

## COURSE AGENDA

DAY 1	
08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Safety Committees
10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Information to be Provided to the Committee
11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Responsibilities of Committee Representatives
14.00 – 15.30	Committee Authority
15.30 – 15.45	Refreshment and Networking
15.45 – 17.00	Committee Administration

# KET-A211 HEALTH, SAFETY & ENVIRONMENT PLAN



Price : Rp. 1.500.000,- per Pax  
Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok  
Duration: 1 Day  
Contact : Krisna 08128865001 or Irmanto 08982333380

**Practical Things,  
Case Studies and  
Exercises!**



## AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Civil, Process, Piping, Electrical, Instrument & Mechanical for Oil & Gas Facilities, Refineries, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

## COURSE OUTLINE

1. *Office Health and Safety Plan*
2. *Site Health, Safety and Environment Management*
3. *Environment Risk Management Implementation*

## COURSE AGENDA

DAY 1	
08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Office Health and Safety Plan
10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Site Health, Safety and Environment Management
11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Environment Risk Management Implementation

# KET-A212 HEALTH, SAFETY & ENVIRONMENT PROCEDURE



**Price : Rp. 1.500.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 1 Day**  
**Contact : Krisna 08128865001 or Irmanto 0898233380**

**Practical Things,  
Case Studies and  
Exercises!**



## AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Civil, Process, Piping, Electrical, Instrument & Mechanical for Oil & Gas Facilities, Refineries, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

## COURSE OUTLINE

1. *Health and Safety Procedure Manual*
2. *HSE System Procedure*

## COURSE AGENDA

DAY 1	
08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Health and Safety Procedure Manual
10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	HSE System Procedure

# KET-A213 HEALTH, SAFETY & ENVIRONMENT SPECIFICATION



**Price** : Rp. 1.500.000,- per Pax  
**Venue** : Ruko de Valerian A No. 10 Grand Depok City, Depok  
**Duration**: 1 Day  
**Contact** : Krisna 08128865001 or Irmanto 08982333380

**Practical Things,  
Case Studies and  
Exercises!**



## AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Civil, Process, Piping, Electrical, Instrument & Mechanical for Oil & Gas Facilities, Refineries, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

## COURSE OUTLINE

1. *HSE Specification*
2. *HSE Scope of Work*

## COURSE AGENDA

DAY 1	
08.00 – 08.30	Registration and Prepare
08.30 – 10.00	HSE Specification
10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	HSE Scope of Work

## KET-A214 HSE ENGINEERING ECONOMICS OF BASIC DESIGN MANUAL



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 1.500.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 1 Day**  
**Contact : Krisna 08128865001 or Irmanto 0898233380**



### AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Civil, Process, Piping, Electrical, Instrument & Mechanical for Oil & Gas Facilities, Refineries, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

### COURSE OUTLINE

1. *Work Procedure*
2. *Evaluation Method*

### COURSE AGENDA

DAY 1	
08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Work Procedure
10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Evaluation Method

# KET-A215 HSE RISK MANAGEMENT



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 1.500.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 1 Day**  
**Contact : Krisna 08128865001 or Irmanto 0898233380**



## AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Civil, Process, Piping, Electrical, Instrument & Mechanical for Oil & Gas Facilities, Refineries, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

## COURSE OUTLINE

1. *Elimination – Eliminate the Hazard from the Workplace*
2. *Substitution - Substituting a Hazardous Substance or Process with a less Hazardous One*
3. *Engineering Controls - Installing Machine Guarding or Enclosing a Noisy Machine*
4. *Administrative Controls - Applying a Permit-to-Work System or Lock-Out & Tag-Out Proc.*
5. *PPE - Provision and Use of these Equipment and SWP – Safe Work Procedures*

## COURSE AGENDA

DAY 1	
08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Eliminate the Hazard from the Workplace
10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Substituting a Hazardous Substance or Process with a less Hazardous One
11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Engineering Controls - Installing Machine Guarding or Enclosing a Noisy Machine
14.00 – 15.30	Administrative Controls - Applying a Permit-to-Work System or Lock-Out & Tag-Out Proc.
15.30 – 15.45	Refreshment and Networking
15.45 – 17.00	PPE - Provision and Use of these Equipment and SWP – Safe Work Procedures



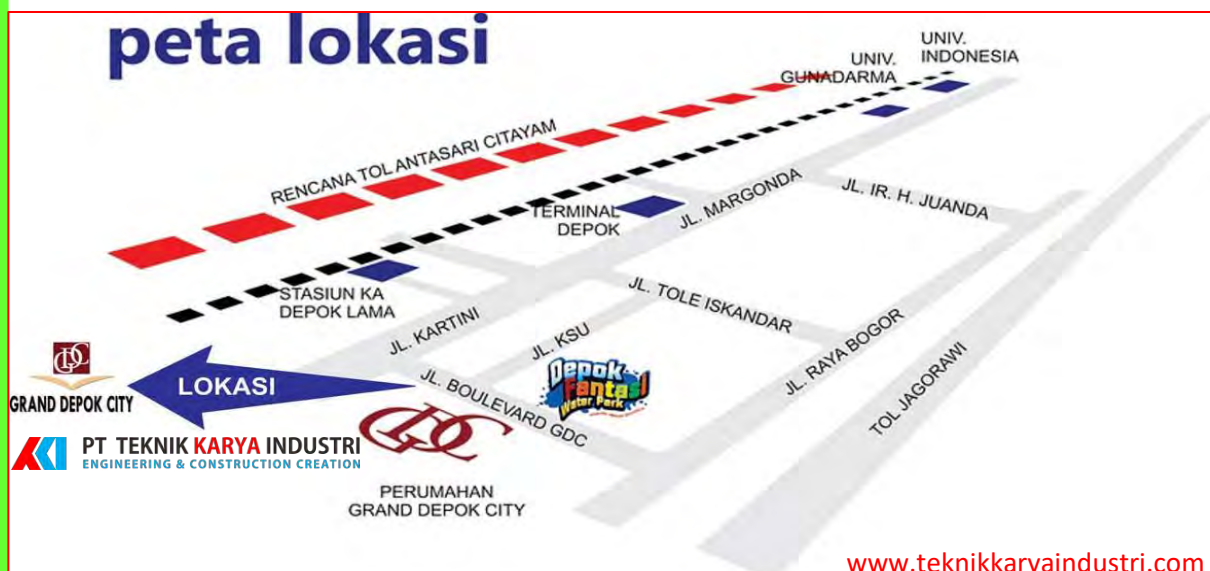
**KET INSTRUCTOR**

**Atok Suparto**  
Senior HSE Engineer



- ⊙ Responsible to coordinate, implement, improve, evaluate and monitor the effectiveness of safety and environmental management that meet company objective and all project Indonesian safety standard.
- ⊙ Responsible to conduct safety planned inspection and train staff on safety and environment, environment and quality standard and local regulation.
- ⊙ Provide direction and assistance to all Field HSE Compliance to fulfill their safety responsible and assist operation staff in proactively training the workforce to meet safety requirements.
- ⊙ Development of HSE manual.
- ⊙ Health, Safety and Environmental Committee Terms of Reference
- ⊙ Crane inspections and compliance.
- ⊙ Permit to Work System.
- ⊙ All Health, Safety, and Environmental Pro-formers.
- ⊙ Risk Assessment/ Analysis / Management / HIRADC.
- ⊙ Monitor and review all Contractors Subcontractors performance.
- ⊙ Implementation of Safety Systems and Audits.
- ⊙ Reporting and Recording of all Contractors Safety performance.
- ⊙ Train company Safety Officers and Inspectors.
- ⊙ Accident / Incident Investigation.
- ⊙ Monitor all site works and special procedures.
- ⊙ Fire Prevention Training and Management.
- ⊙ Gas detection programs.

**peta lokasi**



# KET-A220 BASIC PROCESS ENGINEERING



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 6.000.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 4 Days**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**



## AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Process, Piping, Instrument & Mechanical for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

## COURSE AGENDA

DAY 1		DAY 3	
08.00 – 08.30	Registration and Prepare	08.00 – 08.30	Registration and Prepare
08.30 – 10.00	General Process	08.30 – 10.00	Operation Manual
10.00 – 10.15	Refreshment and Networking	10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Basic Design Procedure	10.15 – 11.30	Fire Protection
11.30 – 12.30	Lunch and Pray	11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Basic Engineering Design Data (DEDD)	12.30 – 14.00	Process Instrumentation
14.00 – 15.30	Basis of Process Engineering	14.00 – 15.30	Vendor Evaluation
15.30 – 15.45	Refreshment and Networking	15.30 – 15.45	Refreshment and Networking
15.45 – 17.00	Process Piping	15.45 – 17.00	Heat Transfer
DAY 2		DAY 4	
08.00 – 08.30	Registration and Prepare	08.00 – 08.30	Registration and Prepare
08.30 – 10.00	PFD (Process Flow Diagram)	08.30 – 10.00	Safeguarding System
10.00 – 10.15	Refreshment and Networking	10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	PFD (Process Flow Diagram)	10.15 – 11.30	Safeguarding System
11.30 – 12.30	Lunch and Pray	11.30 – 12.30	Lunch and Pray
12.30 – 14.00	PID (Piping & Instrument Diagram)	12.30 – 14.00	Plant Layout and Environment
14.00 – 15.30	PID (Piping & Instrument Diagram)	14.00 – 15.30	Plant Layout and Environment
15.30 – 15.45	Refreshment and Networking	15.30 – 15.45	Refreshment and Networking
15.45 – 17.00	PID (Piping & Instrument Diagram)	15.45 – 17.00	Utility and Offsite Manual

# KET-A220

# GENERAL PROCESS



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 3.000.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 2 Days**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**



## AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Process, Piping, Instrument & Mechanical for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

## COURSE OUTLINE

1. *Process Standard*
2. *American Petroleum Institute (API)*
3. *Process Engineering Procedure*
4. *Value Engineering*
5. *Process Manual*
6. *HTRI (Heat Transfer Research Inc.)*
7. *Job Instruction*
8. *PEN (Process Engineering) Tool*
9. *Process Overview and Preparation*
10. *Process Development & Conference*

## COURSE AGENDA

DAY 1		DAY 2	
08.00 – 08.30	Registration and Prepare	08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Process Standard	08.30 – 10.00	HTRI (Heat Transfer Research Inc.)
10.00 – 10.15	Refreshment and Networking	10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	American Petroleum Institute (API)	10.15 – 11.30	Job Instruction
11.30 – 12.30	Lunch and Pray	11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Process Engineering Procedure	12.30 – 14.00	PEN (Process Engineering) Tool
14.00 – 15.30	Value Engineering	14.00 – 15.30	Process Overview and Preparation
15.30 – 15.45	Refreshment and Networking	15.30 – 15.45	Refreshment and Networking
15.45 – 17.00	Process Manual	15.45 – 17.00	Process Development & Conference

# KET-A221 BASIC DESIGN PROCEDURE



**Price** : Rp. 1.500.000,- per Pax  
**Venue** : Ruko de Valerian A No. 10 Grand Depok City, Depok  
**Duration**: 1 Day  
**Contact** : Krisna 08128865001 or Irmanto 08982333380

**Practical Things,  
Case Studies and  
Exercises!**



## AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Process, Piping, Instrument & Mechanical for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

## COURSE OUTLINE

1. *Scope of Basic Engineering*
2. *Process Design Philosophy*
3. *Basic Design Package*
4. *Verification Procedure*

## COURSE AGENDA

DAY 1	
08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Scope of Basic Engineering
10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Process Design Philosophy
11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Basic Design Package
14.00 – 14.15	Refreshment and Networking
14.15 – 16.00	Verification Procedure

# KET-A222 BASIC ENGINEERING DESIGN DATA



**Price : Rp. 1.500.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 1 Day**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**

**Practical Things,  
Case Studies and  
Exercises!**



## AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Process, Piping, Instrument & Mechanical for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

## COURSE OUTLINE

1. *Basic Engineering Design Data*
2. *Process Evaluation*
3. *Process Technical Design*

## COURSE AGENDA

DAY 1	
08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Basic Engineering Design Data
10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Process Evaluation
11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Process Technical Design

# KET-A223 BASIS OF PROCESS ENGINEERING



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 1.500.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 1 Day**  
**Contact : Krisna 08128865001 or Irmanto 0898233380**

## AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Process, Piping, Instrument & Mechanical for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

## COURSE OUTLINE

1. *Design Condition*
2. *Process Material Selection*
3. *Computer Program and Process Data Preparation*
4. *Performance Guarantee*
5. *Process Control Schemes*

## COURSE AGENDA

DAY 1	
08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Design Condition
10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Process Material Selection
11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Computer Program and Process Data Preparation
14.00 – 15.30	Performance Guarantee
15.30 – 15.45	Refreshment and Networking
15.45 – 17.00	Process Control Schemes



## KET-A224

# PROCESS PIPING



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 1.500.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 1 Day**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**



### AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Process, Piping, Instrument & Mechanical for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

### COURSE OUTLINE

1. *Restriction Orifice*
2. *Guide to Valve Selection*
3. *Winterization and Condensate Recovery System*

### COURSE AGENDA

DAY 1	
08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Restriction Orifice
10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Guide to Valve Selection
11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Winterization and Condensate Recovery System

## KET-A225

# PREPARATION OF P & ID



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 1.500.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 1 Day**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**



### AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Process, Piping, Instrument & Mechanical for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

### COURSE OUTLINE

1. *Preparation Process Flow Diagram (PFD)*
2. *Execution Procedure of Piping & Instrument Diagram (P&ID)*
3. *Drawing Standard for P&ID Preparation*
4. *Design Criteria for P&ID Preparation*
5. *Preparation of Process Operation Diagram*

### COURSE AGENDA

DAY 1	
08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Preparation Process Flow Diagram (PFD)
10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Execution Procedure of Piping & Instrument Diagram (P&ID)
11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Drawing Standard for P&ID Preparation
14.00 – 15.30	Design Criteria for P&ID Preparation
15.30 – 15.45	Refreshment and Networking
15.45 – 17.00	Preparation of Process Operation Diagram

## KET-A226

# OPERATION MANUAL



**Price : Rp. 1.500.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 1 Day**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**

**Practical Things,  
Case Studies and  
Exercises!**



### AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Process, Piping, Instrument & Mechanical for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

### COURSE OUTLINE

1. *Standardize the quality of the Operation Manual*
2. *Be modified or deleted depending upon the particular Process*

### COURSE AGENDA

DAY 1	
08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Standardize the quality of the Operation Manual
10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Be modified or deleted depending upon the particular Process

# KET-A227

# FIRE PROTECTION



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 3.000.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 2 Days**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**



## AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Process, Piping, Instrument & Mechanical for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

## COURSE OUTLINE

1. *Engineering Procedure for Fire Protection*
2. *Calculation for Fire Protection*
3. *Fire Protection Layout*
4. *Project Specification for Fire Protection*
5. *Data Sheet for Fire Protection*
6. *Design Manual for Fire Protection*
7. *Fire Fighting System*

## COURSE AGENDA

DAY 1		DAY 2	
08.00 – 08.30	Registration and Prepare	08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Engineering Procedure for Fire Protect.	08.30 – 10.00	Data Sheet for Fire Protection
10.00 – 10.15	Refreshment and Networking	10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Calculation for Fire Protection	10.15 – 11.30	Design Manual for Fire Protection
11.30 – 12.30	Lunch and Pray	11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Fire Protection Layout	12.30 – 14.00	Fire Fighting System
15.30 – 15.45	Refreshment and Networking	15.30 – 15.45	Refreshment and Networking
15.45 – 17.00	Project Specification for Fire Protection	15.45 – 17.00	Fire Fighting System

## KET-A228

# PROCESS INSTRUMENTATION



**Price : Rp. 1.500.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 1 Day**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**

**Practical Things,  
Case Studies and  
Exercises!**



### AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Process, Piping, Instrument & Mechanical for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

### COURSE OUTLINE

1. *Preparation of Instrument Data*
2. *Preparation of Level Control and Level Gauge Arrangement*
3. *Control Valve*

### COURSE AGENDA

DAY 1	
08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Preparation of Instrument Data
10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Preparation of Level Control and Level Gauge Arrangement
11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Control Valve

## KET-A229

# VENDOR EVALUATION



**Price** : Rp. 1.500.000,- per Pax  
**Venue** : Ruko de Valerian A No. 10 Grand Depok City, Depok  
**Duration**: 1 Day  
**Contact** : Krisna 08128865001 or Irmanto 08982333380

**Practical Things,  
Case Studies and  
Exercises!**



### AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Process, Piping, Instrument & Mechanical for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

### COURSE OUTLINE

1. *Bid Evaluation Table*
2. *Vendor Clarification Meeting*
3. *Bid Evaluation Report*

### COURSE AGENDA

DAY 1	
08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Bid Evaluation Table
10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Vendor Clarification Meeting
11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Bid Evaluation Report

## KET-A230

# HEAT TRANSFER



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 1.500.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 1 Day**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**



### AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Process, Piping, Instrument & Mechanical for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

### COURSE OUTLINE

1. *Shell and Tube Heat Exchangers*
2. *Air Cooled Heat Exchangers*
3. *Furnaces*

### COURSE AGENDA

DAY 1	
08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Shell and Tube Heat Exchangers
10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Air Cooled Heat Exchangers
11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Furnaces

# KET-A231 SAFEGUARDING SYSTEM



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 3.000.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 2 Days**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**



## AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Process, Piping, Instrument & Mechanical for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

## COURSE OUTLINE

1. *Pressure Relieving Design*
2. *Flare and Blowdown System*
3. *Emergency Measures for Process Unit*
4. *Pressure Relief Devices*
5. *HAZOP (Hazardous and Operation Study)*
6. *Hazardous Area Classification*
7. *Process Safeguarding Flow Scheme*

## COURSE AGENDA

DAY 1		DAY 2	
08.00 – 08.30	Registration and Prepare	08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Pressure Relieving Design	08.30 – 10.00	HAZOP (Hazardous and Operation Study)
10.00 – 10.15	Refreshment and Networking	10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Flare and Blowdown System	10.15 – 11.30	Hazardous Area Classification
11.30 – 12.30	Lunch and Pray	11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Emergency Measures for Process Unit	12.30 – 14.00	Hazardous Area Classification
15.30 – 15.45	Refreshment and Networking	15.30 – 15.45	Refreshment and Networking
15.45 – 17.00	Pressure Relief Devices	15.45 – 17.00	Process Safeguarding Flow Scheme

# KET-A232 PLANT LAYOUT AND ENVIRONMENT



**Price : Rp. 1.500.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 1 Day**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**

**Practical Things,  
Case Studies and  
Exercises!**



## AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Process, Piping, Instrument & Mechanical for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

## COURSE OUTLINE

1. *Noise Control*
2. *Print Layout for Basic Design Engineering*
3. *Engineering Model Review*

## COURSE AGENDA

DAY 1	
08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Noise Control
10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Print Layout for Basic Design Engineering
11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Engineering Model Review

**KET-A233**

# UTILITY AND OFF SITE MANUAL



**Price : Rp. 1.500.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 1 Day**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**

**Practical Things,  
Case Studies and  
Exercises!**



## AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Process, Piping, Instrument & Mechanical for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

## COURSE OUTLINE

1. *Utility Manual*
2. *Off Site Manual*

## COURSE AGENDA

DAY 1	
08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Utility Manual
10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Off Site Manual



**KET INSTRUCTOR**

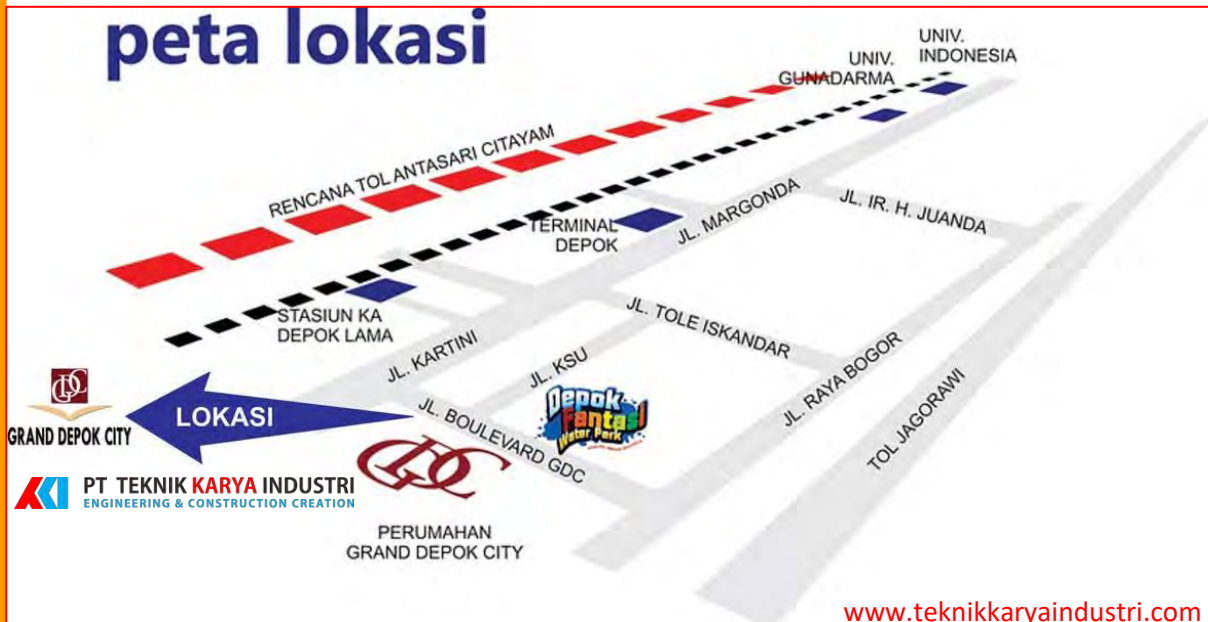


**Puguh Mahendrodjati**  
Senior Process Engineer



- © More than 9 years of experience as Process and Process Safety Engineering for Onshore and Offshore Oil and Gas Facilities.
- © Familiar with International Code and Standards related to process and process safety such as API, NFPA, etc.
- © Extensive work in Process Safety Management (PSM) elements implementation.
- © Extensive work in loss prevention, risk assessment and process safety engineering such as Layout Study, EERA, FEA, QRA, Dropped Object, Hazardous Area, Active Fire Protection Design, HAZOP, HAZID, SIL Classification (LOPA), SIL Verification
- © Familiar with HYSYS, FLARENET, FLARESIM, PIPESIM and having basic knowledge and skill with PHAST, PHAST Risk, Pipenet.
- © Support day to day operation by developing engineering package for small facilities modification, hazard identification & analysis, and provide expertise to solve day to day operation problem.
- © Support project at Conceptual, Front End Engineering Design (FEED) and Detail Design phase, and Turn Around for National and Multinational environment.
- © Experienced working for Engineering company, EPCI Company and Oil & Gas operating Company.

**peta lokasi**



# KET-A310 BASIC CIVIL ENGINEERING



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 6.000.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 4 Days**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**



## AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Civil and Architect for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

## COURSE AGENDA

DAY 1		DAY 3	
08.00 – 08.30	Registration and Prepare	08.00 – 08.30	Registration and Prepare
08.30 – 10.00	General Civil	08.30 – 10.00	Marine and Mooring Facilities
10.00 – 10.15	Refreshment and Networking	10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Survey	10.15 – 11.30	Foundation
11.30 – 12.30	Lunch and Pray	11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Site Formation and Development	12.30 – 14.00	Steel Structure
14.00 – 15.30	Concrete	14.00 – 15.30	Steel Structure
15.30 – 15.45	Refreshment and Networking	15.30 – 15.45	Refreshment and Networking
15.45 – 17.00	Concrete	15.45 – 17.00	Civil Retaining Wall Specification
DAY 2		DAY 4	
08.00 – 08.30	Registration and Prepare	08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Standard Pile	08.30 – 10.00	Design Foundation
10.00 – 10.15	Refreshment and Networking	10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Earth Dike	10.15 – 11.30	Civil Standard Drawing
11.30 – 12.30	Lunch and Pray	11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Underground Facilities	12.30 – 14.00	Civil Design Drawing
14.00 – 15.30	Fence and Gate	14.00 – 15.30	Building Civil
15.30 – 15.45	Refreshment and Networking	15.30 – 15.45	Refreshment and Networking
15.45 – 17.00	Asphalt Road and Area Parking Work	15.45 – 17.00	Building Civil

## KET-A310

# GENERAL CIVIL



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 3.000.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 2 Days**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**



### AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Civil and Architect for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

### COURSE OUTLINE

1. *Civil Design Control Procedure*
2. *Engineering Activities Civil*
3. *Design Info with Other Disciplines*
4. *Civil Engineering Manual*
5. *Civil Document List*
6. *Civil Drafting Praticce*
7. *Civil Engineering Execution Flow*
8. *Fireproofing for Steel Structures*
9. *Foundation Earthwork*
10. *Inspection Procedure*

### COURSE AGENDA

DAY 1		DAY 2	
08.00 – 08.30	Registration and Prepare	08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Civil Design Control Procedure	08.30 – 10.00	Civil Drafting Praticce
10.00 – 10.15	Refreshment and Networking	10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Engineering Activities Civil	10.15 – 11.30	Civil Engineering Execution Flow
11.30 – 12.30	Lunch and Pray	11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Design Info with Other Disciplines	12.30 – 14.00	Fireproofing for Steel Structures
14.00 – 15.30	Civil Engineering Manual	14.00 – 15.30	Foundation Earthwork
15.30 – 15.45	Refreshment and Networking	15.30 – 15.45	Refreshment and Networking
15.45 – 17.00	Civil Document List	15.45 – 17.00	Inspection Procedure

## KET-A311

# SOIL SURVEY



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 1.500.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 1 Day**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**



### AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Civil and Architect for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

### COURSE OUTLINE

1. *Surveying and Mapping*
2. *Soil Investigation*
3. *Oceanographic Survey*
4. *Soil Improvement*

### COURSE AGENDA

DAY 1	
08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Surveying and Mapping
10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Soil Investigation
11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Oceanographic Survey
14.00 – 14.15	Refreshment and Networking
14.15 – 16.00	Soil Improvement

# KET-A312 SITE FORMATION & DEVELOPMENT

Support by EPC Company :  
PT TEKNIK KARYA INDUSTRI  
ENGINEERING & CONSTRUCTION CREATION  
[www.teknikkaryaindustri.com](http://www.teknikkaryaindustri.com)



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 1.500.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 1 Day**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**



## AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Civil and Architect for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

## COURSE OUTLINE

1. *Site Formation*
2. *Site Development*

## COURSE AGENDA

DAY 1	
08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Site Formation
10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Site Development

## KET-A313

# CONCRETE



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 1.500.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 1 Day**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**



### AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Civil and Architect for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

### COURSE OUTLINE

1. *Anchor Bolts*
2. *Concrete Work*
3. *Concrete Stack*

### COURSE AGENDA

DAY 1	
08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Anchor Bolts
10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Concrete Work
11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Concrete Stack

## KET-A314

# STANDARD PILE



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 1.500.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 1 Day**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**



### AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Civil and Architect for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

### COURSE OUTLINE

1. *Pile Load Test*
2. *Requisition for Pile*
3. *Standard Pile Head*

### COURSE AGENDA

DAY 1	
08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Pile Load Test
10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Requisition for Pile
11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Standard Pile Head

## KET-A315

# EARTH DIKE



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 1.500.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 1 Day**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**



### AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Civil and Architect for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

### COURSE OUTLINE

1. *Walls of Dike*
2. *Access to Dike Interior*
3. *Construction of Earth Dike*
4. *Grading of Diked Area*
5. *Piping Pass Through Dike Wall*

### COURSE AGENDA

DAY 1	
08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Walls of Dike
10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Access to Dike Interior
11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Construction of Earth Dike
14.00 – 15.30	Grading of Diked Area
15.30 – 15.45	Refreshment and Networking
15.45 – 17.00	Piping Pass Through Dike Wall

# KET-A316 UNDERGROUND FACILITIES



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 1.500.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 1 Day**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**



## AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Civil and Architect for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

## COURSE OUTLINE

1. *Drainage*
2. *Catch Basin and Cleanout*
3. *Drip Funnel*
4. *Preparation of Underground Facility Design*
5. *Asphalt Protective Coating*

## COURSE AGENDA

DAY 1	
08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Drainage
10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Catch Basin and Cleanout
11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Drip Funnel
14.00 – 15.30	Preparation of Underground Facility Design
15.30 – 15.45	Refreshment and Networking
15.45 – 17.00	Asphalt Protective Coating

## KET-A317

# FENCE AND GATE



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 1.500.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 1 Day**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**



### AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Civil and Architect for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

### COURSE OUTLINE

1. Fence
2. Posts
3. Gate post
4. Foundation

### COURSE AGENDA

DAY 1	
08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Fence
10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Posts
11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Gate post
14.00 – 14.15	Refreshment and Networking
14.15 – 16.00	Foundation

# KET-A318 ASPHALT ROAD & AREA PAVING WORK



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 1.500.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 1 Day**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**



## AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Civil and Architect for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

## COURSE OUTLINE

1. Asphalt Road Work
2. Area Paving

## COURSE AGENDA

DAY 1	
08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Asphalt Road Work
10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Area Paving

# KET-A319 UNDERGROUND FACILITIES



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 1.500.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 1 Day**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**



## AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Civil and Architect for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

## COURSE OUTLINE

1. *Well Drilling*
2. *Marine Facility*
3. *Selection Pipe*
4. *Dredging Work*
5. *Mooring Facility*

## COURSE AGENDA

DAY 1	
08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Well Drilling
10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Marine Facility
11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Selection Pipe
14.00 – 15.30	Dredging Work
15.30 – 15.45	Refreshment and Networking
15.45 – 17.00	Mooring Facility

## KET-A320

# FOUNDATION



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 1.500.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 1 Day**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**



### AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Civil and Architect for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

### COURSE OUTLINE

1. *Foundation Stairway and Ladder*
2. *Measurement and Equipment Foundation*

### COURSE AGENDA

DAY 1	
08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Foundation Stairway and Ladder
10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Measurement and Equipment Foundation

## KET-A321

# STEEL STRUCTURE



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 3.000.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 2 Days**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**



### AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Civil and Architect for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

### COURSE OUTLINE

1. *Standard Check Sheet*
2. *Design Table Type Structure*
3. *Shop Fabrication*
4. *Requisition for Steel*
5. *Floor Grating*
6. *Basic Requirement*
7. *Erection Steel Structure*

### COURSE AGENDA

DAY 1		DAY 2	
08.00 – 08.30	Registration and Prepare	08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Standard Check Sheet	08.30 – 10.00	Floor Grating
10.00 – 10.15	Refreshment and Networking	10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Design Table Type Structure	10.15 – 11.30	Basic Requirement
11.30 – 12.30	Lunch and Pray	11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Shop Fabrication	12.30 – 14.00	Erection Steel Structure
14.00 – 14.15	Refreshment and Networking	14.00 – 14.15	Refreshment and Networking
14.15 – 16.00	Requisition for Steel	14.15 – 16.00	Erection Steel Structure

# KET-A322 CIVIL RETAINING WALL SPECIFICATION



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 1.500.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 1 Day**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**



## AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Civil and Architect for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

## COURSE OUTLINE

1. *Concrete Blocks*
2. *Concrete Wall*

## COURSE AGENDA

DAY 1	
08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Concrete Blocks
10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Concrete Wall

## KET-A323

# DESIGN FOUNDATION



**Price** : Rp. 1.500.000,- per Pax  
**Venue** : Ruko de Valerian A No. 10 Grand Depok City, Depok  
**Duration**: 1 Day  
**Contact** : Krisna 08128865001 or Irmanto 08982333380

**Practical Things,  
Case Studies and  
Exercises!**



### AUDIENCE

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### COURSE OUTLINE

1. *Preparation Foundation Design*
2. *Pile Foundation Design*
3. *Foundation Design Tower and Vertical Drum*
4. *Foundation Design Vertical Cylindrical*
5. *Foundation Design Horizontal Vessel*

### COURSE AGENDA

DAY 1	
08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Preparation Foundation Design
10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Pile Foundation Design
11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Foundation Design Tower and Vertical Drum
14.00 – 15.30	Foundation Design Vertical Cylindrical
15.30 – 15.45	Refreshment and Networking
15.45 – 17.00	Foundation Design Horizontal Vessel

## KET-A324

# STANDARD DRAWING



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 1.500.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 1 Day**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**



### AUDIENCE

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### COURSE OUTLINE

1. *Standard Drawing for Handle of Pit Cover*
2. *Standard Drawing for Step Embedded in Concrete Sewer Box*
3. *Standard Drawing for Bar Bending and Staircase*
4. *Standard Drawing for RC Oil Dike*
5. *Standard Drawing for Expansion Joint*

### COURSE AGENDA

DAY 1	
08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Standard Drawing for Handle of Pit Cover
10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Standard Drawing for Step Embedded in Concrete Sewer Box
11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Standard Drawing for Bar Bending and Staircase
14.00 – 15.30	Standard Drawing for RC Oil Dike
15.30 – 15.45	Refreshment and Networking
15.45 – 17.00	Standard Drawing for Expansion Joint

# KET-A325 DESIGN DRAWING CIVIL



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 1.500.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 1 Day**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**



## AUDIENCE

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## COURSE OUTLINE

1. *Stairway, Ladder and Handrail*
2. *Bolt Connection*
3. *Welded Connection*
4. *Flooring and Joist*
5. *Single Bevel*

## COURSE AGENDA

DAY 1	
08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Stairway, Ladder and Handrail
10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Bolt Connection
11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Welded Connection
14.00 – 15.30	Flooring and Joist
15.30 – 15.45	Refreshment and Networking
15.45 – 17.00	Single Bevel

## KET-A326

# BUILDING CIVIL



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 1.500.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 1 Day**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**



### AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Civil and Architect for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

### COURSE OUTLINE

1. *Standard Check Sheet Building*
2. *Building Specification*
3. *Building Standard Procedure*
4. *Standard Design Building*

### COURSE AGENDA

DAY 1	
08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Standard Check Sheet Building
10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Building Specification
11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Building Standard Procedure
14.00 – 14.15	Refreshment and Networking
14.15 – 16.00	Standard Design Building



# KET-A330 BASIC MECHANICAL ENGINEERING



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 6.000.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 4 Days**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**



## AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Mechanical for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

## COURSE AGENDA

DAY 1		DAY 3	
08.00 – 08.30	Registration and Prepare	08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Tank Mixing	08.30 – 10.00	Pump
10.00 – 10.15	Refreshment and Networking	10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Reactor	10.15 – 11.30	Compressor
11.30 – 12.30	Lunch and Pray	11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Tower	12.30 – 14.00	Steam Turbine
14.00 – 15.30	Drum	14.00 – 15.30	Gas Expander
15.30 – 15.45	Refreshment and Networking	15.30 – 15.45	Refreshment and Networking
15.45 – 17.00	Atmospheric Storage Tank	15.45 – 17.00	Fan and Blower
DAY 2		DAY 4	
08.00 – 08.30	Registration and Prepare	08.00 – 08.30	Registration and Prepare
08.30 – 10.00	High Pressure Storage Tank	08.30 – 10.00	Gas Turbine
10.00 – 10.15	Refreshment and Networking	10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Refrigerated Storage Tank	10.15 – 11.30	Hydraulic
11.30 – 12.30	Lunch and Pray	11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Agitated Vessel	12.30 – 14.00	Boiler
14.00 – 15.30	Inline Mixing	14.00 – 15.30	Furnace
15.30 – 15.45	Refreshment and Networking	15.30 – 15.45	Refreshment and Networking
15.45 – 17.00	Vacuum Equipment	15.45 – 17.00	Flare Stack

## KET-A330

# STATIC EQUIPMENT



**Price** : Rp. 3.000.000,- per Pax  
**Venue** : Ruko de Valerian A No. 10 Grand Depok City, Depok  
**Duration**: 2 Days  
**Contact** : Krisna 08128865001 or Irmanto 08982333380

**Practical Things,  
Case Studies and  
Exercises!**



### AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Mechanical for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

### COURSE OUTLINE

1. Tank Mixing
2. Reactor
3. Tower
4. Drum
5. Atmospheric Storage Tank
6. High Pressure Storage Tank
7. Refrigerated Storage Tank
8. Agitated Vessel
9. Inline Mixing
10. Vacuum Equipment

### COURSE AGENDA

DAY 1		DAY 2	
08.00 – 08.30	Registration and Prepare	08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Tank Mixing	08.30 – 10.00	High Pressure Storage Tank
10.00 – 10.15	Refreshment and Networking	10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Reactor	10.15 – 11.30	Refrigerated Storage Tank
11.30 – 12.30	Lunch and Pray	11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Tower	12.30 – 14.00	Agitated Vessel
14.00 – 15.30	Drum	14.00 – 15.30	Inline Mixing
15.30 – 15.45	Refreshment and Networking	15.30 – 15.45	Refreshment and Networking
15.45 – 17.00	Atmospheric Storage Tank	15.45 – 17.00	Vacuum Equipment

## KET-A340

# ROTARY MACHINERY



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 3.000.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 2 Days**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**



### AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Mechanical for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

### COURSE OUTLINE

1. *Pump*
2. *Compressor*
3. *Steam Turbine*
4. *Gas Expander*
5. *Fan and Blower*
6. *Gas Turbine*
7. *Hydraulic*
8. *Liquid Surge Analysis*

### COURSE AGENDA

DAY 1		DAY 2	
08.00 – 08.30	Registration and Prepare	08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Pump	08.30 – 10.00	Fan and Blower
10.00 – 10.15	Refreshment and Networking	10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Compressor	10.15 – 11.30	Gas Turbine
11.30 – 12.30	Lunch and Pray	11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Steam Turbine	12.30 – 14.00	Hydraulic
14.00 – 14.15	Refreshment and Networking	14.00 – 14.15	Refreshment and Networking
14.15 – 16.00	Gas Expander	14.15 – 16.00	Liquid Surge Analysis

## KET-A350

# COMBUSTION



**Price** : Rp. 1.500.000,- per Pax  
**Venue** : Ruko de Valerian A No. 10 Grand Depok City, Depok  
**Duration**: 1 Day  
**Contact** : Krisna 08128865001 or Irmanto 08982333380

**Practical Things,  
Case Studies and  
Exercises!**



### AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Mechanical for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

### COURSE OUTLINE

1. *Boiler*
2. *Furnace*
3. *Flare Stack*

### COURSE AGENDA

DAY 1	
08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Boiler
10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Furnace
11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Tower Flare Stack



**KET INSTRUCTOR**

**Mohamed Gempar**

Senior Mechanical Engineer



- © 15 years experiences in MRO (Maintenance-Repair-Overhaul), EPC (Engineering Procurement Construction) and LNG (Liquid Natural Gas) Plant Company with specialization in Rotating Equipments.
- © Experience in Repair Overhaul, Feasibility Study, Front End Engineering Design, Detail Engineering Design (FEED) Construction Commissioning, Reliability Maintenance Troubleshooting of Rotating Equipments (Gas Turbine, Steam Turbine, Compressor, Pump, Blower, Fan, Diesel Engine and Agitator).
- © Familiar in design of rotating equipment to ANSI, ASME, API, NFPA 20 Code & Standards for Oil, Gas, Chemical, Energy, Industry, Petrochemical applications including Equipment Specification, Equipment Selection, Inspection, Testing, Installation and Commissioning



# KET-A360 BASIC PIPING ENGINEERING



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 6.000.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 4 Days**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**

## AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Piping & Mechanical for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

## COURSE AGENDA



DAY 1		DAY 3	
08.00 – 08.30	Registration and Prepare	08.00 – 08.30	Registration and Prepare
08.30 – 10.00	General Piping	08.30 – 10.00	Piping Support
10.00 – 10.15	Refreshment and Networking	10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Piping Design	10.15 – 11.30	Piping Support
11.30 – 12.30	Lunch and Pray	11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Piping Procedure	12.30 – 14.00	Piping Layout
14.00 – 15.30	Piping Calculation	14.00 – 15.30	Piping Layout
15.30 – 15.45	Refreshment and Networking	15.30 – 15.45	Refreshment and Networking
15.45 – 17.00	Piping Calculation	15.45 – 17.00	Piping Layout
DAY 2		DAY 4	
08.00 – 08.30	Registration and Prepare	08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Piping Analysis	08.30 – 10.00	Piping Material Specification
10.00 – 10.15	Refreshment and Networking	10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Piping Standard Drawing	10.15 – 11.30	Piping Material Specification
11.30 – 12.30	Lunch and Pray	11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Piping Support	12.30 – 14.00	Piping Material Specification
14.00 – 15.30	Piping Standard Drawing	14.00 – 15.30	Piping Material Take Off
15.30 – 15.45	Refreshment and Networking	15.30 – 15.45	Refreshment and Networking
15.45 – 17.00	Piping Standard Drawing	15.45 – 17.00	Piping Material Take Off

## KET-A361

# PIPING DESIGN



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 1.500.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 1 Day**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**



### AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Piping & Mechanical for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

### COURSE OUTLINE

1. Piping Design
2. Piping Line Index
3. Piping Tie In List
4. Package Unit

### COURSE AGENDA

DAY 1	
08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Piping Design
10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Piping Line Index
11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Piping Tie In List
14.00 – 14.15	Refreshment and Networking
14.15 – 16.00	Package Unit

## KET-A362

# PIPING PROCEDURE



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 1.500.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 1 Day**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**



### AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Piping & Mechanical for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

### COURSE OUTLINE

1. Preparation Procedure for Line Index
2. Preparation Procedure for Piping Field
3. Piping Calculation Procedure
4. Procedure Equipment

### COURSE AGENDA

DAY 1	
08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Preparation Procedure for Line Index
10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Preparation Procedure for Piping Field
11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Piping Calculation Procedure
14.00 – 14.15	Refreshment and Networking
14.15 – 16.00	Procedure Equipment

## KET-A360

# GENERAL PIPING



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 1.500.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 1 Day**  
**Contact : Krisna 08128865001 or Irmanto 0898233380**



### AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Piping & Mechanical for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

### COURSE OUTLINE

1. *Plan for Practical use of Piping*
2. *Split of Work with Other Disciplines*
3. *Execution Procedure for Piping Design Engineering*
4. *Execution Flow of Piping*

### COURSE AGENDA

DAY 1	
08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Plan for Practical use of Piping
10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Split of Work with Other Disciplines
11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Execution Procedure for Piping Design Engineering
14.00 – 14.15	Refreshment and Networking
14.15 – 16.00	Execution Flow of Piping

# KET-A363 PIPING CALCULATION & ANALYSIS



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 1.500.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 1 Day**  
**Contact : Krisna 08128865001 or Irmanto 0898233380**



## AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Piping & Mechanical for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

## COURSE OUTLINE

1. Loading Calculation
2. Stress Analysis for Piping System
3. Calculation Control Sheet

## COURSE AGENDA

DAY 1	
08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Loading Calculation
10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Stress Analysis for Piping System
11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Calculation Control Sheet

# KET-A364

# PIPING STANDARD DRAWING



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 1.500.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 1 Day**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**



## AUDIENCE

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## COURSE OUTLINE

1. *Nozzle, Bosses, Flange, Nipple,*
2. *Thermowell, Cooler, Strainer, Separator*
3. *Bend, Hose, Ring, Copper Tube*

## COURSE AGENDA

DAY 1	
08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Nozzle, Bosses, Flange, Nipple
10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Thermowell, Cooler, Strainer, Separator
11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Bend, Hose, Ring, Copper Tube

## KET-A365

# PIPING SUPPORT



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 1.500.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 1 Day**  
**Contact : Krisna 08128865001 or Irmanto 0898233380**



### AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Piping & Mechanical for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

### COURSE OUTLINE

1. *Pipe Support*
2. *Hanger Support and Angle Support*
3. *Heat and Cold Insulation Support*
4. *Anti Vibration Support*
5. *Piping Structural Analysis*

### COURSE AGENDA

DAY 1	
08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Pipe Support
10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Hanger Support and Angle Support
11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Heat and Cold Insulation Support
14.00 – 15.30	Anti Vibration Support
15.30 – 15.45	Refreshment and Networking
15.45 – 17.00	Piping Structural Analysis

## KET-A366

# PIPING LAYOUT



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 3.000.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 2 Days**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**



### AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Piping & Mechanical for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

### COURSE OUTLINE

1. Check List for Piping Layout
2. Execution Procedure for Piping Layout
3. Piping Dimension
4. Design Criteria for Piping Arrangement
5. Design Guide for Piping Arrangement
6. Design Work Flow for Piping Arrangement
7. Drawing Practice for Piping
8. Piping Information

### COURSE AGENDA

DAY 1		DAY 2	
08.00 – 08.30	Registration and Prepare	08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Check List for Piping Layout	08.30 – 10.00	Design Guide for Piping Arrangement
10.00 – 10.15	Refreshment and Networking	10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Execution Procedure for Piping Layout	10.15 – 11.30	Design Work Flow for Piping Arrangement
11.30 – 12.30	Lunch and Pray	11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Piping Dimension	12.30 – 14.00	Drawing Practice for Piping
14.00 – 14.15	Refreshment and Networking	14.00 – 14.15	Refreshment and Networking
14.15 – 16.00	Design Criteria for Piping Arrangement	14.15 – 16.00	Piping Information

## KET-A367

# PIPING MATERIAL



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 1.500.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 1 Day**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**



### AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Piping & Mechanical for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

### COURSE OUTLINE

1. *Procedure Piping Material Requisition*
2. *Piping Material Engineering*
3. *Piping Material Specification*

### COURSE AGENDA

DAY 1	
08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Procedure Piping Material Requisition
10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Piping Material Engineering
11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Piping Material Specification

# KET-A368 PIPING MATERIAL TAKE OFF



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 1.500.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 1 Day**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**



## AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Piping & Mechanical for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

## COURSE OUTLINE

1. *Piping Job Data BMBQ (Bill of Material and Bill of Quantity)*
2. *Operation Manual Material Take Off System*

## COURSE AGENDA

DAY 1	
08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Piping Job Data BMBQ (Bill of Material and Bill of Quantity)
10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Operation Manual Material Take Off System



## KET INSTRUCTOR

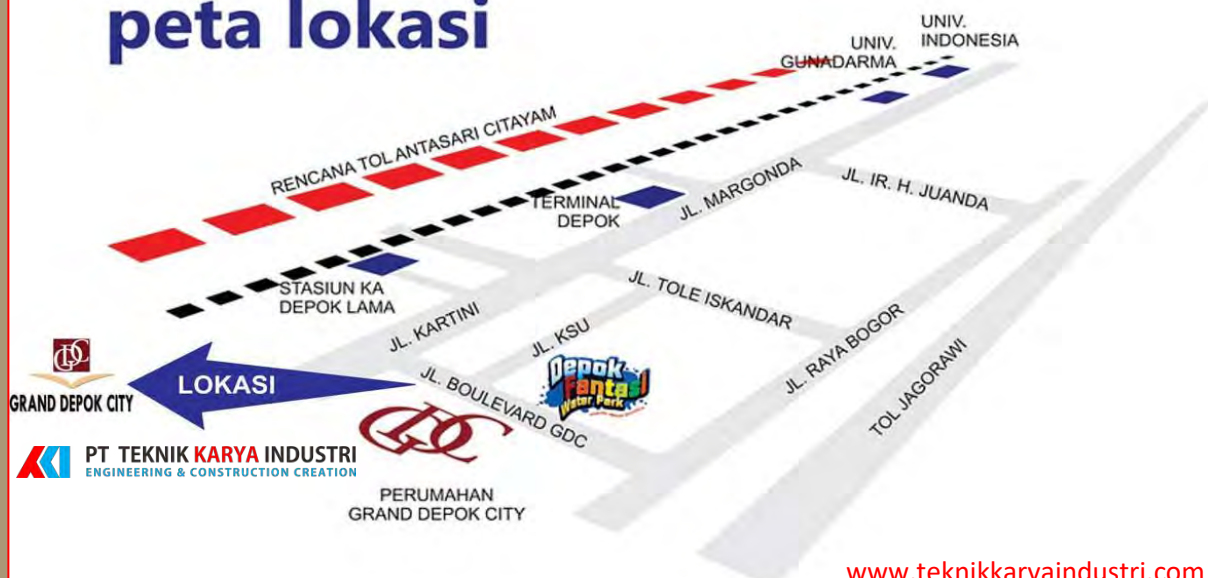


**Yose Ma'ruf**  
Senior Piping Engineer



- © More 15 years experienced as Piping Engineer for several Petrochemical, Refineries, Utility/Offsite and Oil & Gas (Onshore and Offshore) Engineering Projects.
- © Expertise basically in strong analytical on piping stress analysis, at process and utility area, covering analysis on piping size 6" to 30" as developed by Piping Stress Critical Line List and those were connected to Static and Rotating equipment such as Vessels, Tanks, Heaters, Exchangers, Coolers, Pumps and Compressors, determining any support types based on analysis result.
- © International and National Codes and Standards with all of it's aspects to Oil and Gas Facility, Production and Operation.
- © Project Specifications: Pipe Stress Analysis Specification, Piping Material Specification, Piping Design Basis.
- © Data Sheet: specialty item Data Sheet, Spring Support Data Sheet.
- © Report: Pipe Stress Analysis, Support Loading Data, Equipment Nozzle
- © Documentation to Vendor scope: Requisition/Quotations Report, Technical Bid Evaluation.
- © Reviewing Piping Drawing: Plot Plan, General Arrangements/Layouts, Isometrics and Support Plan and Details.
- © Lecturing Piping Stress Analysis at an Company's in-house Training or at Oil & Gas Training Course Institution Caesar II (version 5.0, 5.1, 5.2, 5.3/2011, 7/2014), Autopipe (version 6.2, XM), PDMS Viewer, AutoCAD.

## peta lokasi



# KET-A370 BASIC INSTRUMENT ENGINEERING



**Practical Things,  
 Case Studies and  
 Exercises!**

**Price : Rp. 6.000.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 4 Days**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**



## AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Electrical and Instrument for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

## COURSE AGENDA

DAY 1		DAY 3	
08.00 – 08.30	Registration and Prepare	08.00 – 08.30	Registration and Prepare
08.30 – 10.00	General Instrument	08.30 – 10.00	Analyzer
10.00 – 10.15	Refreshment and Networking	10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	General Instrument	10.15 – 11.30	Analyzer
11.30 – 12.30	Lunch and Pray	11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Control System	12.30 – 14.00	Fire Monitoring and Detection
14.00 – 15.30	Control System	14.00 – 15.30	Fire Monitoring and Detection
15.30 – 15.45	Refreshment and Networking	15.30 – 15.45	Refreshment and Networking
15.45 – 17.00	Instrument Measurement	15.45 – 17.00	Installation Design Instrument
DAY 2		DAY 4	
08.00 – 08.30	Registration and Prepare	08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Instrument Measurement	08.30 – 10.00	Instrument Data Base Management
10.00 – 10.15	Refreshment and Networking	10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Instrument Control	10.15 – 11.30	Instrument Data Base Management
11.30 – 12.30	Lunch and Pray	11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Instrument Control	12.30 – 14.00	Instrument Data Base Management
14.00 – 15.30	Control Valve	14.00 – 15.30	Instrument Data Base Management
15.30 – 15.45	Refreshment and Networking	15.30 – 15.45	Refreshment and Networking
15.45 – 17.00	Control Valve	15.45 – 17.00	Instrument Data Base Management

## KET-A370

# GENERAL INSTRUMENT



**Price** : Rp. 3.000.000,- per Pax  
**Venue** : Ruko de Valerian A No. 10 Grand Depok City, Depok  
**Duration**: 2 Days  
**Contact** : Krisna 08128865001 or Irmanto 08982333380

**Practical Things,  
Case Studies and  
Exercises!**



### AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Electrical and Instrument for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

### COURSE OUTLINE

1. *Guidance Instrument Engineering*
2. *SOW between Instrument and Others Disc.*
3. *Preparation Information for Instrument*
4. *General Specification Instrumentation*
5. *Instrument Execution Flow and Procedure*
6. *Instrument Code and Standard*
7. *Instrument Form and Instrument Check Sheet*
8. *Instrument Instruction*
9. *Conceptual Instrumentation*
10. *SMARTPLAN Instrumentation (INTOOLS)*

### COURSE AGENDA

DAY 1		DAY 2	
08.00 – 08.30	Registration and Prepare	08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Guidance Instrument Engineering	08.30 – 10.00	Instrument Code and Standard
10.00 – 10.15	Refreshment and Networking	10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	SOW between Instrument & Others Disc	10.15 – 11.30	Instrument Form & Instrument Check Sheet
11.30 – 12.30	Lunch and Pray	11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Preparation Information for Instrument	12.30 – 14.00	Instrument Instruction
14.00 – 15.30	General Specification Instrumentation	14.00 – 15.30	Conceptual Instrumentation
15.30 – 15.45	Refreshment and Networking	15.30 – 15.45	Refreshment and Networking
15.45 – 17.00	Instrument Execution Flow & Procedure	15.45 – 17.00	SMARTPLAN Instrumentation (INTOOLS)

## KET-A371

# CONTROL SYSTEM



**Practical Things,  
Case Studies and  
Exercises!**

**Price** : Rp. 3.000.000,- per Pax  
**Venue** : Ruko de Valerian A No. 10 Grand Depok City, Depok  
**Duration**: 2 Days  
**Contact** : Krisna 08128865001 or Irmanto 08982333380



### AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Electrical and Instrument for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

### COURSE OUTLINE

1. *Guidance Distribution Control System*
2. *Emergency Shutdown System*
3. *Control System*
4. *Fire and Gas System*
5. *Cause and Effect Chart*
6. *Local Panel*
7. *Specification Instrument Control*
8. *Guidance Control System*

### COURSE AGENDA

DAY 1		DAY 2	
08.00 – 08.30	Registration and Prepare	08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Guidance Distribution Control System	08.30 – 10.00	Cause and Effect Chart
10.00 – 10.15	Refreshment and Networking	10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Emergency Shutdown System	10.15 – 11.30	Local Panel
11.30 – 12.30	Lunch and Pray	11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Control System	12.30 – 14.00	Specification Instrument Control
14.00 – 14.15	Refreshment and Networking	14.00 – 14.15	Refreshment and Networking
14.15 – 16.00	Fire and Gas System	14.15 – 16.00	Guidance Control System

**KET-A372**

# INSTRUMENT MEASUREMENT



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 3.000.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 2 Days**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**



## AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Electrical and Instrument for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

## COURSE OUTLINE

1. *Preparation and Guidance Instrument Control*
2. *Orifice Calculation*

## COURSE AGENDA

DAY 1	
08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Preparation and Guidance Instrument Control
10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Orifice Calculation

**KET-A373**

# INSTRUMENT CONTROL



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 1.500.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 1 Day**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**



## AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Electrical and Instrument for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

## COURSE OUTLINE

1. *Instrument Standard Drawing*
2. *Instrument Specification*
3. *Instrument Measurement*
4. *Design Criteria Measurement Control*

## COURSE AGENDA

DAY 1	
08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Instrument Standard Drawing
10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Instrument Specification
11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Instrument Measurement
14.00 – 14.15	Refreshment and Networking
14.15 – 16.00	Design Criteria Measurement Control

## KET-A374

# CONTROL VALVE



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 3.000.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 2 Days**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**



### AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Electrical and Instrument for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

### COURSE OUTLINE

1. *Control Valve Design*
2. *Design Criteria Valve*
3. *Sample Specification*
4. *Safety Relief*
5. *Requisition Analyzer & Control Valve*
6. *Control Valve Technical Bid Evaluation*
7. *Vendor Document*

### COURSE AGENDA

DAY 1		DAY 2	
08.00 – 08.30	Registration and Prepare	08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Control Valve Design	08.30 – 10.00	Requisition Analyzer & Control Valve
10.00 – 10.15	Refreshment and Networking	10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Design Criteria Valve	10.15 – 11.30	Control Valve Technical Bid Evaluation
11.30 – 12.30	Lunch and Pray	11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Sample Specification	12.30 – 14.00	Vendor Document
14.00 – 14.15	Refreshment and Networking	14.00 – 14.15	Refreshment and Networking
14.15 – 16.00	Safety Relief	14.15 – 16.00	Vendor Document

## KET-A375

# ANALYZER



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 1.500.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 1 Day**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**



### AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Electrical and Instrument for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

### COURSE OUTLINE

1. *Preparation Information Analyzer*
2. *Specification Analyzer*
3. *Specification Detector*
4. *Specification Valve*
5. *Specification Monitoring System*

### COURSE AGENDA

DAY 1	
08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Preparation Information Analyzer
10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Specification Analyzer
11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Specification Detector
14.00 – 15.30	Specification Valve
15.30 – 15.45	Refreshment and Networking
15.45 – 17.00	Specification Monitoring System

# KET-A376 FIRE MONITORING & DETECTION



**Practical Things,  
Case Studies and  
Exercises!**

Price : Rp. 1.500.000,- per Pax  
Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok  
Duration : 1 Day  
Contact : Krisna 08128865001 or Irmanto 08982333380



## AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Electrical and Instrument for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

## COURSE OUTLINE

1. Monitoring System
2. Metering System
3. Control System
4. Gas Detection System
5. Detection Equipment System

## COURSE AGENDA

DAY 1	
08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Monitoring System
10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Metering System
11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Control System
14.00 – 15.30	Gas Detection System
15.30 – 15.45	Refreshment and Networking
15.45 – 17.00	Detection Equipment System

# KET-A377 INSTALLATION DESIGN INSTRUMENT



**Practical Things,  
 Case Studies and  
 Exercises!**



**Price : Rp. 3.000.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 2 Days**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**

## AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Electrical and Instrument for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

## COURSE OUTLINE

1. Preparation Guidance
2. Installation Drawing for Instrument
3. Design Guidance Drawing
4. Instrument Form Bill of Quantity
5. Sample Requisition Instrument
6. Instrument Work
7. Instrument Test
8. Instrument Design
9. Sample Drawing for Instrument
10. Instrument Sample Specification

## COURSE AGENDA

DAY 1	DAY 2
08.00 – 08.30	08.00 – 08.30
Registration and Prepare	Registration and Prepare
08.30 – 10.00	08.30 – 10.00
Preparation Guidance	Instrument Work
10.00 – 10.15	10.00 – 10.15
Refreshment and Networking	Refreshment and Networking
10.15 – 11.30	10.15 – 11.30
Installation Drawing for Instrument	Instrument Test
11.30 – 12.30	11.30 – 12.30
Lunch and Pray	Lunch and Pray
12.30 – 14.00	12.30 – 14.00
Design Guidance Drawing	Instrument Design
14.00 – 15.30	14.00 – 15.30
Instrument Form Bill of Quantity	Sample Drawing for Instrument
15.30 – 15.45	15.30 – 15.45
Refreshment and Networking	Refreshment and Networking
15.45 – 17.00	15.45 – 17.00
Sample Requisition Instrument	Instrument Sample Specification



## KET INSTRUCTOR



### Kholis Fahri

Senior Instrument Engineer



- © More than 20 years of experiences in the various Project, in Oil and Gas, Mineral and Petrochemical Industry as an Instrument & Control System Engineer in EPC such as TPPI Olefin & Aromatic Project at Tuban, Pupuk Iskandar Muda II at North Aceh, POPKA and Kaltim IV at Bontang, NPK Project at Gresik, Semen Kupang 2 at NTT, HVU-3 Modification Project at UP-V Balikpapan, Tangguh LNG Project at Papua, *Sisi Nubi 2B & Peciko 7B Development Total Indonesia Project* and many onshore/offshore projects.
- © Have skills for Instrument Basic and Detail Engineering and Field Construction Supervision for Oil & Gas, Fertilizer, Mining and Mineral Plant, also have a specialization in Field Instruments and Process Control System.
- © Familiar with Instrument Standard and Code International and National.
- © Experienced in preparation and reviewing for engineering documents such as Instrument & Control System Philosophy, Instrumentation for Package Specification, Analyzer Specification, Custody Metering Specification, Control Valve, On Off and Safety Valve Specification, ESD and FGS Cause & Effect Chart, ESD Logic Diagram, Analyzer and other instrumentation Data Sheet, and Instrument construction Drawing.
- © Significant experienced in Automation and Control Engineering with multiple control system implementation project and many control system platforms.
- © Involved in many Factory/Site Acceptance Test (FAT/SAT) for Control System or Package System.
- © SmartPlant Instrumentation Administrator and SmartPlant Engineering.



# KET-A380 BASIC ELECTRICAL ENGINEERING



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 6.000.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 4 Days**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**



## AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Electrical and Instrument for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

## COURSE AGENDA

DAY 1		DAY 3	
08.00 – 08.30	Registration and Prepare	08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Electrical Common	08.30 – 10.00	Earthing & Lightning Protection
10.00 – 10.15	Refreshment and Networking	10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Electrical Common	10.15 – 11.30	Earthing & Lightning Protection
11.30 – 12.30	Lunch and Pray	11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Power Generation & Substation Design	12.30 – 14.00	Fire Alarm and Gas Detection System
14.00 – 15.30	Power Generation & Substation Design	14.00 – 15.30	Communication System
15.30 – 15.45	Refreshment and Networking	15.30 – 15.45	Refreshment and Networking
15.45 – 17.00	Power Generation & Substation Design	15.45 – 17.00	Communication System
DAY 2		DAY 4	
08.00 – 08.30	Registration and Prepare	08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Power System	08.30 – 10.00	Cathodic Protection System
10.00 – 10.15	Refreshment and Networking	10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Power System	10.15 – 11.30	Cathodic Protection System
11.30 – 12.30	Lunch and Pray	11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Power System	12.30 – 14.00	Electrical Heat Tracing
14.00 – 15.30	Lighting System	14.00 – 15.30	Electrical Analysis Study
15.30 – 15.45	Refreshment and Networking	15.30 – 15.45	Refreshment and Networking
15.45 – 17.00	Lighting System	15.45 – 17.00	Electrical Analysis Study

## KET-A380

# ELECTRICAL COMMON



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 3.000.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 2 Days**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**



### AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Electrical and Instrument for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

### COURSE OUTLINE

1. Key Line Diagram
2. Hazardous Area Classification Study
3. Typical Installation Details for Power Generator & Substation Work
4. Typical Installation Details for Power Work
5. Typical Install. Details for Lighting Work
6. Typical Installation Details for Earthing & Lightning Work
7. Electrical General Specification
8. DEED (Detail Engineering Design Data)
9. Electrical Construction Specification
10. Electrical Requirement for Package

### COURSE AGENDA

DAY 1		DAY 2	
08.00 – 08.30	Registration and Prepare	08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Key Line Diagram	08.30 – 10.00	Typ. Install. Details for Earthing & Lightn. W.
10.00 – 10.15	Refreshment and Networking	10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Hazardous Area Classification Study	10.15 – 11.30	Electrical General Specification
11.30 – 12.30	Lunch and Pray	11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Typ. Ins. Details for Power Gen. & SS W	12.30 – 14.00	DEED (Detail Engineering Design Data)
14.00 – 15.30	Typical Install. Details for Power Work	14.00 – 15.30	Electrical Construction Specification
15.30 – 15.45	Refreshment and Networking	15.30 – 15.45	Refreshment and Networking
15.45 – 17.00	Typ. Install. Details for Lighting Work	15.45 – 17.00	Electrical Requirement for Package

# KET-A381 POWER GENERATION & SUBSTATION DESIGN



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 6.000.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 4 Days**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**



## AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Electrical and Instrument for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

## COURSE AGENDA

DAY 1		DAY 3	
08.00 – 08.30	Registration and Prepare	08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Equipment Layout in Substation	08.30 – 10.00	DC Power Supply System Specification
10.00 – 10.15	Refreshment and Networking	10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	One Line Diagram and Power System	10.15 – 11.30	Neutral Earthing Resistor
11.30 – 12.30	Lunch and Pray	11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Motor Specification and Data Sheet	12.30 – 14.00	Electrical Load Data Calculation
14.00 – 15.30	Generator Capacity and Specification	14.00 – 15.30	Short Circuit Calculation
15.30 – 15.45	Refreshment and Networking	15.30 – 15.45	Refreshment and Networking
15.45 – 17.00	Power Transformer Calc., Spec. & DS	15.45 – 17.00	Motor Start. Study & Load Shedding Study
DAY 2		DAY 4	
08.00 – 08.30	Registration and Prepare	08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Power Capacitor Calc., Spec. & DS	08.30 – 10.00	Protective Relay Coordination Study
10.00 – 10.15	Refreshment and Networking	10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Switchgear Specification & Data Sheet	10.15 – 11.30	Voltage Drop and Load Flow Study
11.30 – 12.30	Lunch and Pray	11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Motor Control Center Spec. & Data S.	12.30 – 14.00	Annunciator Panel
14.00 – 15.30	Distribution Board Spec. & Data Sheet	14.00 – 15.30	Bus Duct Calculation and Specification
15.30 – 15.45	Refreshment and Networking	15.30 – 15.45	Refreshment and Networking
15.45 – 17.00	UPS Capacity and Specification	15.45 – 17.00	Electrical Interface to DCS

# KET-A382

# POWER SYSTEM



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 6.000.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 4 Days**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**



## AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Electrical and Instrument for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

## COURSE AGENDA

DAY 1		DAY 3	
08.00 – 08.30	Registration and Prepare	08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Cable Sizing Calculation	08.30 – 10.00	Electrical Cable Specification
10.00 – 10.15	Refreshment and Networking	10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Cable Tray Calculation	10.15 – 11.30	Electrical Cable Specification
11.30 – 12.30	Lunch and Pray	11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Cable Trenches Design	12.30 – 14.00	Bulk Material Data Sheet and Specification
14.00 – 15.30	Duct Bank Design	14.00 – 15.30	Bulk Material Data Sheet and Specification
15.30 – 15.45	Refreshment and Networking	15.30 – 15.45	Refreshment and Networking
15.45 – 17.00	Power Wiring Layout	15.45 – 17.00	Bulk Material Data Sheet and Specification
DAY 2		DAY 4	
08.00 – 08.30	Registration and Prepare	08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Cable Way Layout	08.30 – 10.00	Voltage Drop in Cables
10.00 – 10.15	Refreshment and Networking	10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Cable Con. Diagram & Schematic Diag.	10.15 – 11.30	Voltage Drop in Cables
11.30 – 12.30	Lunch and Pray	11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Cable Schedule	12.30 – 14.00	Voltage Drop in Cables
14.00 – 15.30	Cable Drum Schedule	14.00 – 15.30	Technical Bid Evaluation Cable
15.30 – 15.45	Refreshment and Networking	15.30 – 15.45	Refreshment and Networking
15.45 – 17.00	Control Station & Power Outlet Data S.	15.45 – 17.00	Bill of Material for Cable and Bulk Material

## KET-A383

# LIGHTING SYSTEM



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 1.500.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 1 Day**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**



### AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Electrical and Instrument for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

### COURSE OUTLINE

1. *Lighting Fixture Specification and Data Sheet*
2. *Lighting Illumination Level Calculation*
3. *Lighting Layout*
4. *Lighting Connection Diagram*
5. *Lighting Panel Schedule*

### COURSE AGENDA

DAY 1	
08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Lighting Fixture Specification and Data Sheet
10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Lighting Illumination Level Calculation
11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Lighting Layout
14.00 – 15.30	Lighting Connection Diagram
15.30 – 15.45	Refreshment and Networking
15.45 – 17.00	Lighting Panel Schedule

# KET-A384 **EARTHING & LIGHTNING PROTECTION SYSTEM**



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 1.500.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 1 Day**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**



## AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Electrical and Instrument for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

## COURSE OUTLINE

1. *General Earthing and Lightning Protection*
2. *Lightning Protection Drawing and Bill of Material*
3. *Earthing Layout and Bill of Material*
4. *Earthing and Lightning Philosophy and Specification*
5. *Grounding and Lightning Protection Calculation*

## COURSE AGENDA

DAY 1	
08.00 – 08.30	Registration and Prepare
08.30 – 10.00	General Earthing and Lightning Protection
10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Lightning Protection Drawing and Bill of Material
11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Earthing Layout and Bill of Material
14.00 – 15.30	Earthing and Lightning Philosophy and Specification
15.30 – 15.45	Refreshment and Networking
15.45 – 17.00	Grounding and Lightning Protection Calculation

# KET-A385 FIRE ALARM & GAS DETECTION SYSTEM



**Price** : Rp. 1.500.000,- per Pax  
**Venue** : Ruko de Valerian A No. 10 Grand Depok City, Depok  
**Duration**: 1 Day  
**Contact** : Krisna 08128865001 or Irmanto 08982333380

**Practical Things,  
Case Studies and  
Exercises!**



## AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Electrical and Instrument for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

## COURSE OUTLINE

1. *General Fire Alarm and Gas Detection System*
2. *Fire Alarm and Gas Detection System*
3. *Fire Alarm Concept and Fire Fighting System*
4. *Cable Schedule and Connection Diagram for Fire Alarm*
5. *Installation Detail for Fire Alarm*

## COURSE AGENDA

DAY 1	
08.00 – 08.30	Registration and Prepare
08.30 – 10.00	General Fire Alarm and Gas Detection System
10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Fire Alarm and Gas Detection System
11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Fire Alarm Concept and Fire Fighting System
14.00 – 15.30	Cable Schedule and Connection Diagram for Fire Alarm
15.30 – 15.45	Refreshment and Networking
15.45 – 17.00	Installation Detail for Fire Alarm

# KET-A386 COMMUNICATION SYSTEM



**Practical Things,  
 Case Studies and  
 Exercises!**

**Price : Rp. 3.000.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 2 Days**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**



## AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Electrical and Instrument for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

## COURSE OUTLINE

1. General Communication System
2. Communication System Design
3. Telephone System Layout
4. Paging, Load Speaker and Radio System Layout
5. Local Area Network (LAN) System
6. Closed Circuit Television (CCTV) System
7. Cable Schedule and Connection Diagram Communication System
8. Fiber Optic Concept and Installation
9. Installation Detail for Communication

## COURSE AGENDA

DAY 1		DAY 2	
08.00 – 08.30	Registration and Prepare	08.00 – 08.30	Registration and Prepare
08.30 – 10.00	General Communication System	08.30 – 10.00	Closed Circuit Television (CCTV) System
10.00 – 10.15	Refreshment and Networking	10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Communication System Design	10.15 – 11.30	Cable Sch. & Connec. Diagram Com. System
11.30 – 12.30	Lunch and Pray	11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Telephone System Layout	12.30 – 14.00	Fiber Optic Concept and Installation
14.00 – 15.30	Paging, Load Speaker & Radio Syst. L/O	14.00 – 15.30	Installation Detail for Communication
15.30 – 15.45	Refreshment and Networking	15.30 – 15.45	Refreshment and Networking
15.45 – 17.00	Local Area Network (LAN) System	15.45 – 17.00	Installation Detail for Communication

## KET-A387

# CATHODIC PROTECTION SYSTEM



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 3.000.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 2 Days**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**



### AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Electrical and Instrument for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

### COURSE OUTLINE

1. *Impressed Current System*
2. *Sacrificial Anode System*
3. *Transformer Rectifier Specification*
4. *Cathodic Protection Calculation and Concept*
5. *Cathodic Protection Layout*
6. *Installation Detail Cathodic Protection*
7. *Cable Schedule for Cathodic Protection*
8. *Connection Diag. for Cathodic Protec.*

### COURSE AGENDA

DAY 1		DAY 2	
08.00 – 08.30	Registration and Prepare	08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Impressed Current System	08.30 – 10.00	Cathodic Protection Layout
10.00 – 10.15	Refreshment and Networking	10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Sacrificial Anode System	10.15 – 11.30	Installation Detail Cathodic Protection
11.30 – 12.30	Lunch and Pray	11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Transformer Rectifier Specification	12.30 – 14.00	Cable Schedule for Cathodic Protection
14.00 – 14.15	Refreshment and Networking	14.00 – 14.15	Refreshment and Networking
14.15 – 16.00	Cathodic Protec. Calculation & Concept	14.15 – 16.00	Connection Diagram for Cathodic Protection

# KET-A388

# ELECTRICAL HEAT TRACING



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 1.500.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 1 Day**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**



## AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Electrical and Instrument for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

## COURSE OUTLINE

1. *General Electrical Heat Trace System*
2. *Heat Tracing Calculation*
3. *Layout for Electrical Heater*
4. *Installation Detail for Heat Tracing*
5. *Heat Tracing Connection Diagram and Cable Schedule*

## COURSE AGENDA

DAY 1	
08.00 – 08.30	Registration and Prepare
08.30 – 10.00	General Electrical Heat Trace System
10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Heat Tracing Calculation
11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Layout for Electrical Heater
14.00 – 15.30	Installation Detail for Heat Tracing
15.30 – 15.45	Refreshment and Networking
15.45 – 17.00	Heat Tracing Connection Diagram and Cable Schedule

# KET-A389 ELECTRICAL ANALYSIS SYSTEM



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 1.500.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 1 Day**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**



## AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Electrical and Instrument for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

## COURSE OUTLINE

1. *Basic of Electric Transient and Analysis Program*
2. *Short Circuit Calculation*
3. *Voltage Drop and Load Flow Study*
4. *Motor Starting Study*
5. *Protective Relay Coordination Study*

## COURSE AGENDA

DAY 1	
08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Basic of Electric Transient and Analysis Program
10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Short Circuit Calculation
11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Voltage Drop and Load Flow Study
14.00 – 15.30	Motor Starting Study
15.30 – 15.45	Refreshment and Networking
15.45 – 17.00	Protective Relay Coordination Study



## KET INSTRUCTOR



### Budi Prasetyawan

Senior Electrical Engineer



- © More 18 years experienced as Electrical Engineer for several Petrochemical, Refineries, Utility/Offsite and Oil & Gas (Onshore and Offshore) Engineering Projects.
- © Electrical Basic and Detail Engineering Design, Electrical Low Voltage/High Voltage Distribution and Power System, Electrical Safety Requirement, Hazardous Area Classification, Electrical Equipment Sizing and Selection Criteria, Material Specification, Electrical Cable Sizing, Lighting Calculation, Grounding Calculation, Hazardous Area Classification Electrical Drawing, Single Line Diagram, Data Sheet, Control and Schematic Wiring Diagram, Cable Schedule, Electrical Equipment and Material Take Off, Cable Tray/Cable Layout, Lighting Layout, Grounding and Lightning Layout, Telecom Layout and Wiring Diagram, Fire Alarm Layout and Wiring Diagrams.
- © Procurement Services, Requisition and Technical Bid Evaluation, Review Vendor Drawing
- © Electrical Operational Manual and Troubleshooting, Endorsement Report, Construction Supervision, Start-Up and Pre-Commissioning.
- © International and National Codes and Standards such as IEC, NEMA, API, IEEE, NEC, NFPA, NACE, ICAO, ANSI, PUIL and SNI.

## peta lokasi



# KET-B000

# PROCUREMENT



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 6.000.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 4 Days**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**



## AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Civil, Process, Piping, Electrical, Instrument & Mechanical for Oil & Gas Facilities, Refineries, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

## COURSE AGENDA

DAY 1		DAY 3	
08.00 – 08.30	Registration and Prepare	08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Shop Inspection Procedure	08.30 – 10.00	Scope of Inspection For Electrical
10.00 – 10.15	Refreshment and Networking	10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Shop Inspection Procedure	10.15 – 11.30	Scope of Inspection For Electrical
11.30 – 12.30	Lunch and Pray	11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Shop Inspection Procedure	12.30 – 14.00	Scope of Inspection For Electrical
14.00 – 15.30	Shop Inspection Procedure	14.00 – 15.30	Scope of Inspection For Electrical
15.30 – 15.45	Refreshment and Networking	15.30 – 15.45	Refreshment and Networking
15.45 – 17.00	Shop Inspection Procedure	15.45 – 17.00	Scope of Inspection For Electrical
DAY 2		DAY 4	
08.00 – 08.30	Registration and Prepare	08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Factory Witness Inspection Procedure	08.30 – 10.00	Scope of Inspection For Equipment
10.00 – 10.15	Refreshment and Networking	10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Factory Witness Inspection Procedure	10.15 – 11.30	Scope of Inspection For Equipment
11.30 – 12.30	Lunch and Pray	11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Factory Witness Inspection Procedure	12.30 – 14.00	Scope of Inspection For Equipment
14.00 – 15.30	Factory Witness Inspection Procedure	14.00 – 15.30	Scope of Inspection For Equipment
15.30 – 15.45	Refreshment and Networking	15.30 – 15.45	Refreshment and Networking
15.45 – 17.00	Factory Witness Inspection Procedure	15.45 – 17.00	Scope of Inspection For Equipment

## KET-C000

# CONSTRUCTION



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 6.000.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 4 Days**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**



### AUDIENCE

This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Civil and Architect for Oil & Gas Facilities, Refineries, Process Plants, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

### COURSE AGENDA

DAY 1		DAY 3	
08.00 – 08.30	Registration and Prepare	08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Planning	08.30 – 10.00	Construction Site Works
10.00 – 10.15	Refreshment and Networking	10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Scheduling	10.15 – 11.30	Detail Construction Work
11.30 – 12.30	Lunch and Pray	11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Construction Strategy Overview	12.30 – 14.00	Detail Construction Work
14.00 – 15.30	Construction Org. & Responsibilities	14.00 – 15.30	Pre-Commissioning
15.30 – 15.45	Refreshment and Networking	15.30 – 15.45	Refreshment and Networking
15.45 – 17.00	Interface/Communication Networks	15.45 – 17.00	Pre-Commissioning
DAY 2		DAY 4	
08.00 – 08.30	Registration and Prepare	08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Construction Equipment	08.30 – 10.00	Commissioning
10.00 – 10.15	Refreshment and Networking	10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Construction Methodology	10.15 – 11.30	Commissioning
11.30 – 12.30	Lunch and Pray	11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Subcontracting	12.30 – 14.00	Demobilization
14.00 – 15.30	Construction Plan	14.00 – 15.30	Vendor Assistance
15.30 – 15.45	Refreshment and Networking	15.30 – 15.45	Refreshment and Networking
15.45 – 17.00	Construction Monitoring	15.45 – 17.00	Vendor Assistance

# KET-D000

# COMMISSIONING



**Practical Things,  
Case Studies and  
Exercises!**

**Price : Rp. 6.000.000,- per Pax**  
**Venue : Ruko de Valerian A No. 10 Grand Depok City, Depok**  
**Duration: 4 Days**  
**Contact : Krisna 08128865001 or Irmanto 08982333380**



## AUDIENCE

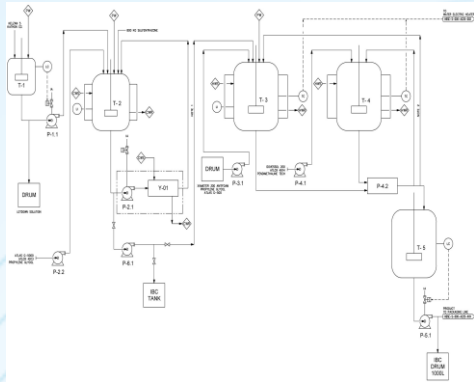
This Course will specifically benefit Project Manager, Engineering Manager, Project Engineers, Engineers and Managers from the disciplines Civil, Process, Piping, Electrical, Instrument & Mechanical for Oil & Gas Facilities, Refineries, Chemical, Petrochemical Facilities, Mining, Power Plant and the related Industries Plant.

## COURSE AGENDA

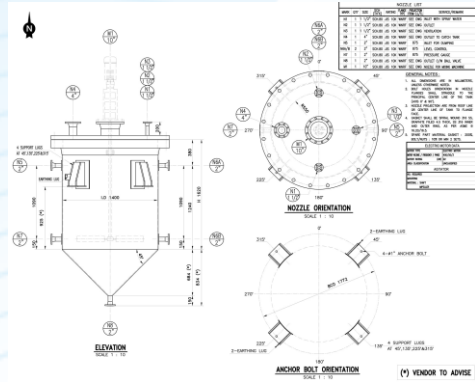
DAY 1		DAY 3	
08.00 – 08.30	Registration and Prepare	08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Preparation of Comm. Execution Plan	08.30 – 10.00	Review Engineering Deliverables
10.00 – 10.15	Refreshment and Networking	10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Preparation of Comm. Execution Plan	10.15 – 11.30	Review Engineering Deliverables
11.30 – 12.30	Lunch and Pray	11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Preparation of Overall Comm. Schedule	12.30 – 14.00	Check of Operability Point of View
14.00 – 15.30	Preparation of Overall Comm. Schedule	14.00 – 15.30	Check of Operability Point of View
15.30 – 15.45	Refreshment and Networking	15.30 – 15.45	Refreshment and Networking
15.45 – 17.00	Preparation of Overall Comm. Schedule	15.45 – 17.00	Check of Operability Point of View
DAY 2		DAY 4	
08.00 – 08.30	Registration and Prepare	08.00 – 08.30	Registration and Prepare
08.30 – 10.00	Preparation of Commissioning Proc.	08.30 – 10.00	Study of Issues Requested by Project Team
10.00 – 10.15	Refreshment and Networking	10.00 – 10.15	Refreshment and Networking
10.15 – 11.30	Preparation of Commissioning Proc.	10.15 – 11.30	Study of Issues Requested by Project Team
11.30 – 12.30	Lunch and Pray	11.30 – 12.30	Lunch and Pray
12.30 – 14.00	Preparation of Commissioning Proc.	12.30 – 14.00	Study of Issues Requested by Project Team
14.00 – 15.30	Preparation of Perform. Test Procedure	14.00 – 15.30	Coordination with Other Disciplines
15.30 – 15.45	Refreshment and Networking	15.30 – 15.45	Refreshment and Networking
15.45 – 17.00	Preparation of Perform. Test Procedure	15.45 – 17.00	Coordination with Outside Parties Concern

# PROJECT ENGINEERING AND CONCEPT DESIGN

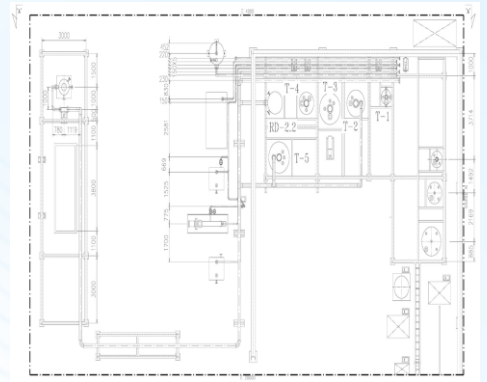
PT Teknik Karya Industri (TKI) provides Project Engineering and Concept Engineering Design to Clients. We give benefits with innovative, customized, technical value and safe for all the Projects. Our Engineering Design Products are Process Flow Diagram (PFD), Arrangement Mechanical Equipment, Piping Layout, Electrical Single Line Diagram (SLD), Instrument Hook Up, Civil Foundation and Civil Shelter.



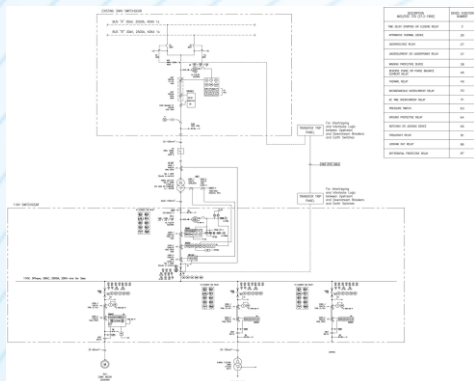
Process Flow Diagram (PFD)



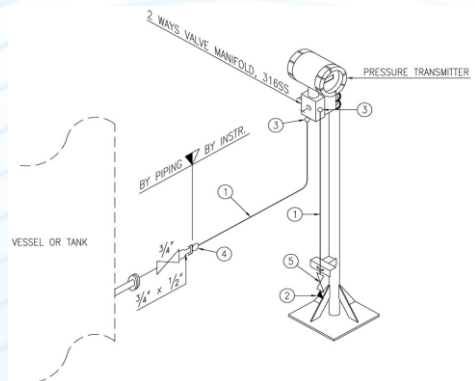
Arrangement Mechanical Equipment



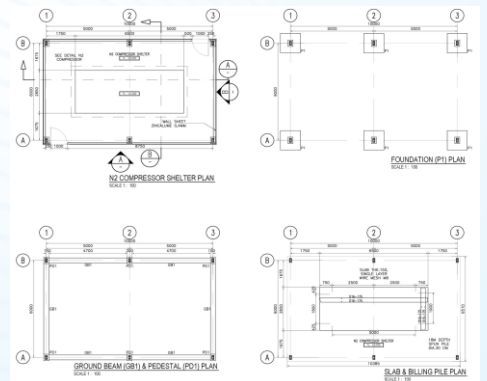
Piping Layout



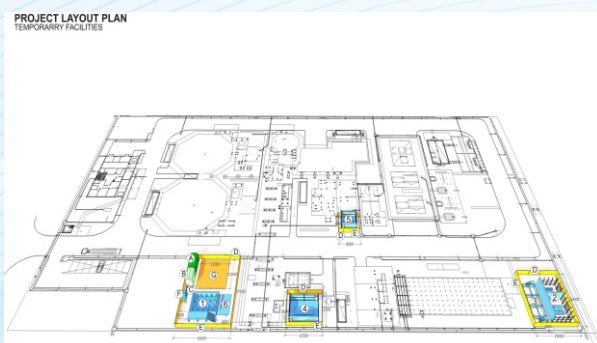
Electrical Single Line Diagram (SLD)



Instrument Hook Up



Civil Foundation and Shelter



# TRAINING AND COURSES

Karya Engineering Training (KET) Training and Courses are developed by PT Teknik Karya Industri. KET conducts the Training and Courses for Engineering Design as Calculation, Analysis Study, Specification Design, Data Sheet and Drawing for Process, Mechanical, Piping, Instrument, Electrical and Civil. Trainees be divided 3 levels as *Drafter*, *Designer* and *Engineer*. See you at website : [www.karyaengineeringtraining.com](http://www.karyaengineeringtraining.com)

## KET-A000 ENGINEERING

### KET-A130 PROJECT MANAGEMENT

NO	TRAINING TITLE	DISCIPLINE
1	KET-A130 PROJECT EXECUTION PLAN	PM
2	KET-A140 PROCEDURE DOCUMENT	PM
3	KET-A150 BID DOCUMENT	PM

### KET-A210 HEALTH, SAFETY AND ENVIRONMENT

NO	TRAINING TITLE	DISCIPLINE
1	KET-A210 GENERAL HEALTH, SAFETY AND ENVIRONMENT	HSE
2	KET-A211 HSE PLAN	HSE
3	KET-A212 HSE PROCEDURE	HSE
4	KET-A213 HSE SPECIFICATION	HSE
5	KET-A214 HSE ENGINEERING ECONOMICS	HSE
6	KET-A215 HSE RISK MANAGEMENT	HSE

### KET-A220 PROCESS ENGINEERING

NO	TRAINING TITLE	DISCIPLINE
1	KET-A220 GENERAL PROCESS	PROCESS
2	KET-A221 BASIC DESIGN PROCEDURE	PROCESS
3	KET-A222 BASIC ENGINEERING DESIGN DATA	PROCESS
4	KET-A223 BASIS OF PROCESS ENGINEERING	PROCESS
5	KET-A224 PROCESS PIPING	PROCESS
6	KET-A225 PREPARATION OF P & ID	PROCESS
7	KET-A226 OPERATION MANUAL	PROCESS
8	KET-A227 FIRE PROTECTION	PROCESS
9	KET-A228 PROCESS INSTRUMENTATION	PROCESS
10	KET-A229 VENDOR EVALUATION	PROCESS
11	KET-A230 HEAT TRANSFER	PROCESS
12	KET-A231 SAFEGUARDING SYSTEM	PROCESS
13	KET-A232 PLANT LAYOUT AND ENVIRONMENT	PROCESS
14	KET-A233 UTILITY AND OFF SITE MANUAL	PROCESS

### KET-A310 CIVIL ENGINEERING

NO	TRAINING TITLE	DISCIPLINE
1	KET-A310 GENERAL CIVIL	CIVIL
2	KET-A311 SOIL SURVEY	CIVIL
3	KET-A312 SITE FORMATION AND DEVELOPMENT	CIVIL
4	KET-A313 CONCRETE	CIVIL
5	KET-A314 STANDARD PILE	CIVIL
6	KET-A315 EARTH DIKE	CIVIL
7	KET-A316 UNDERGROUND FACILITIES	CIVIL
8	KET-A317 FENCE AND GATE	CIVIL
9	KET-A318 ASPHALT ROAD AND AREA PAVING WORK	CIVIL
10	KET-A319 MARINE AND MOORING FACILITIES	CIVIL
11	KET-A320 FOUNDATION	CIVIL
12	KET-A321 STEEL STRUCTURE	CIVIL
13	KET-A322 CIVIL RETAINING WALL SPECIFICATION	CIVIL
14	KET-A323 DESIGN FOUNDATION	CIVIL
15	KET-A324 STANDARD DRAWING	CIVIL
16	KET-A325 DESIGN DRAWING CIVIL	CIVIL
17	KET-A326 BUILDING CIVIL	CIVIL

### KET-A330 MECHANICAL ENGINEERING

NO	TRAINING TITLE	DISCIPLINE
1	KET-A330 STATIC EQUIPMENT	MECHANICAL
2	KET-A340 ROTARY MACHINERY	MECHANICAL
3	KET-A350 COMBUSTION	MECHANICAL

## KET-A360 PIPING ENGINEERING

NO	TRAINING TITLE	DISCIPLINE
1	KET-A360 GENERAL PIPING	PIPING
2	KET-A361 PIPING DESIGN	PIPING
3	KET-A362 PIPING PROCEDURE	PIPING
4	KET-A363 PIPING CALCULATION AND ANALYSIS	PIPING
5	KET-A364 PIPING STANDARD DRAWING	PIPING
6	KET-A365 PIPING SUPPORT	PIPING
7	KET-A366 PIPING LAYOUT	PIPING
8	KET-A367 PIPING MATERIAL	PIPING
9	KET-A368 PIPING MATERIAL TAKE OFF	PIPING

## KET-A370 INSTRUMENT ENGINEERING

NO	TRAINING TITLE	DISCIPLINE
1	KET-A370 GENERAL INSTRUMENT	INSTRUMENT
2	KET-A371 CONTROL SYSTEM	INSTRUMENT
3	KET-A372 INSTRUMENT MEASUREMENT	INSTRUMENT
4	KET-A373 INSTRUMENT CONTROL	INSTRUMENT
5	KET-A374 CONTROL VALVE	INSTRUMENT
6	KET-A375 ANALYZER	INSTRUMENT
7	KET-A376 FIRE MONITORING AND DETECTION	INSTRUMENT
8	KET-A377 INSTALLATION DESIGN INSTRUMENT	INSTRUMENT

## KET-A380 ELECTRICAL ENGINEERING

NO	TRAINING TITLE	DISCIPLINE
1	KET-A380 ELECTRICAL COMMON	ELECTRICAL
2	KET-A381 POWER GENERATION & SUBSTATION DESIGN	ELECTRICAL
3	KET-A382 POWER SYSTEM	ELECTRICAL
4	KET-A383 LIGHTING SYSTEM	ELECTRICAL
5	KET-A384 EARTHING & LIGHTNING PROTECTION SYSTEM	ELECTRICAL
6	KET-A385 FIRE ALARM & GAS DETECTION SYSTEM	ELECTRICAL
7	KET-A386 COMMUNICATION SYSTEM	ELECTRICAL
8	KET-A387 CATHODIC PROTECTION SYSTEM	ELECTRICAL
9	KET-A388 ELECTRICAL HEAT TRACING	ELECTRICAL
10	KET-A389 SOFTWARE ELECTRICAL ANALYSIS STUDY	ELECTRICAL

## KET-B000 PROCUREMENT

NO	TRAINING TITLE	DISCIPLINE
1	KET-B001 SHOP INSPECTION PROCEDURE	PROCUREMENT
2	KET-B002 FACTORY WITNESS INSPECTION PROCEDURE	PROCUREMENT
3	KET-B003 SCOPE OF INSPECTION FOR ELECTRICAL	PROCUREMENT
4	KET-B004 SCOPE OF INSPECTION FOR EQUIPMENT	PROCUREMENT

## KET-C000 CONSTRUCTION

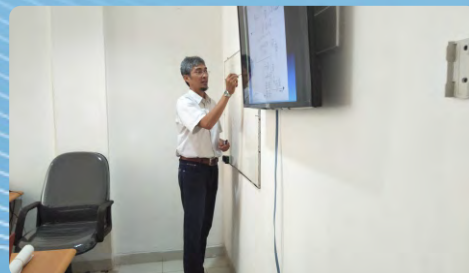
NO	TRAINING TITLE	DISCIPLINE
1	KET-C000 CONSTRUCTION	CONSTRUCTION

## KET-D000 COMMISSIONING

NO	TRAINING TITLE	DISCIPLINE
1	KET-D000 COMMISSIONING	COMMISSIONING

## KET-E000 PROPOSAL

NO	TRAINING TITLE	DISCIPLINE
1	KET-E000 PROPOSAL	PROPOSAL





COURSE & TRAINING  
Level Study :  
DRAFTING - DESIGNING - ENGINEERING  
Process - Mechanical - Piping - Instrument - Electrical - Civil

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