

Foundation of Envision



Sunil Powar

B.E. Mechanical

Piping Layout Engineer

Working Experience Worked abroad with JGC Japan, Samsung Korea, Keppel FELS Singapore 12 years Industry Experience



Suyog Jadhav
B.E. Chemical
Piping Stress Engineer

Working Experience Worked abroad with Samsung Korea, Hyundai Korea, Chiyoda Japan, UHDE India, L & T Chiyoda etc. 15 years Industry Experience.



Vision

"To be a Pioneer Training provider in Engineering, Procurement, construction and management industry across the globe"

Mission

- To enhance learning skill through innovative teaching skill.
- Passionately committed for quality education.
- To promote ethical and value based learning.
- ❖ To contribute towards knowledge generation and dissemination.
- To enhance employability and contribute to human resource development.



Objective

- To enhance knowledge to understand the technical documents.
- To develop the ability to understand the engineering drawing.
- To introduce international codes and standards as well as good industrial practices.
- ❖ To develop the competency required for project design cost optimization.
- To develop ethics to do team work in EPC projects.
- To develop design concepts for safe design of plants.





Bridge between Industry and education to get quality people



Filtered students from 30 colleges

Advantages to industry



Trained manpower as per Industrial requirement



Ethical and Within budget Ready manpower



What we do at Envision

- ✓ Share industrial lesson learnt.
- √ Teach comprehensive technical knowledge and as per company standard.
- ✓ Teach with the help of 3D animation.
- ✓ Clear the basics of codes and standard used industry.
- ✓ Ask to practice deliverables that has to do in industry.
- ✓ Encourage for teamwork.
- ✓ Doubt clearing session .



Milestone in education - Tie-up with Government College



शासकीय तंत्रनिकेतनमध्ये पाईपिंग डिझाईन अभ्यासक्रम

सकाळ वृत्तसेवा

कोल्हापूर, ता. १७ :
"पेट्रोकेमिकल, साखर कारखाने,
औषधनिर्माण, अभियांत्रिकी क्षेत्रात
तसेच सिंगापूर, आखाती देश, कोरिया
येथे यंत्र, स्थापत्य अभियांत्रिकीच्या
प्राप्त ज्ञानावरोवरच पाईपिग
डिझाईनचे विशेष ज्ञान असणाऱ्या
मनुष्यवळाची आवश्यकता आहे.
पदविका, पदवीचे ज्ञान देणाऱ्या
अनेक संस्था आहेत; पण पाईपिग
डिझाईनकरीता स्वतंत्र अध्ययन
करावे लागते.

हे अध्ययन एकाकी होक शकते. त्याचा दुहेरी लाभ होक शकत नाही. तत्पूर्वी, विविध अध्यासक्रमाचे अभियांत्रिकी तंत्रज्ञान आत्मसात केलेल्यांना पाईपिंग डिझाईनचे ज्ञान घेण्याची इच्छा असन त्याला वंचित

राहावे लागते. अभियांत्रिकीच्या ज्ञानावरोवर पाईपिंग डिझाईनचे ज्ञान आत्मसात केले असेल तर सर्विठकाणी प्राधान्य मिळ शकेल. याकरीता शासकीय तंत्रनिकेतनमध्ये पाइप डिझाईन हा अध्यासक्रम सरू करत आहोत'', अशी माहिती प्राचार्य प्रशांत पड़लवार यांनी दिली. या अध्यासक्रमाच्या एनव्हिजन टेनिंग संस्थेवरोवर सामंजस्य करार झाला. अध्यासक्रम समन्वयक डॉ. राजेंद्र डोईफोडे यांनी प्रास्ताविक केले. ते म्हणाले. "इलेक्टॉनिक्समध्ये ज्याप्रमाणे सर्किटच्या रचनेवरून अभियंत्याला मार्गक्रमण करता येते. त्यापद्धतीचा अवलंव पाइपिंग डिझाईनमध्ये होत आहे." प्राचार्य यंत्र अभियांत्रिकी विभागप्रमुख प्रा. सुरेश विजें, एनव्हिजनतर्फे सुनील पोवार यांनी सामंजस्य करारावर स्वाक्षरी केल्या. प्रा. दीपक शिंदे, प्रा. डॉ. भारतभूषण कांवळे, प्रा. रेणप्रसाद कुलकर्णी, प्रा. युवराज ढोवळे, प्रा. अमोल धांडे, प्रा. जे. डी. घोटे आदी उपस्थित होते. प्रा. वाळासाहेव पाटील यांनी आभार मानले.

Sakal - 18/4/16



Training based on advanced facility- 3D Animations





Training based on advanced facility- 3D Animations





Practical knowledge through Industrial Visit





Certificate distribution at SIT, Yadrav & Sanjevan College Panhala





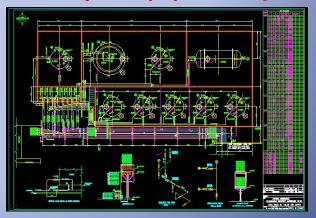
Glance through syllabus

- 1. Preparation of plot plan
- Which shows the buildings, utility runs, and equipment layout, the position of roads, and other constructions
- 2. Equipment layout piping study:
- The final plant design is executed on this drawing. It shows the final locations of all equipments in plant.

Example plot plan



Example Equipment layout





- 3. Piping specification
- 4. Review of process package
- 5. Giving inputs to Civil, Structure, Vessel, Electrical, Instrumentation group

Example Piping Specification

			_											_	=						
				PIPING SPECIFICATION										SHEET 2 OF 23							
-	-	AISI 304 SS	-	ANSI 150 € CLASS									CLASS 304-1								
		TEMPERA from -29			E																
1	Jomin	al Pipe Size (in)	14	14	1	1%	2	214	3	4	6	8	10	12	14	16 1	8 20	24	28	33	2
	THK		Sch. 40S, P.E.					Sch. 10S, B.E.						6.3 mm , B.E.					Ė		
PIPE (8)	TYPE		Т	EFV																	
did	STANDARD		ANSIB36.19 / ANSIB1.20.1																		
	MATERIAL			ASTM A312-TP304										ASTM A358, C1.2, 304						П	
		TYPE	VELDNECK											П							
	LINES	CLASS	ANSI 1508, RF																		
	5	MATERIAL	A182F304										П								
		SIZE	ANSIB16.5																		
S	92	CLASS	ANSI 1508, RF																		
FLANGES	BLINDS	MATERIAL		ASTM A182-F304																	
5	m	SIZE	ANSIB16.5																		
	ORIFICE	TYPE	Velding Neck																		
		CLASS	ANSI 300RF																		
		MATERIAL	ASTM A182-F304																		
		BORE		Same I.D. of attached pipe																	
83	TYPE			Socket Weld, Seamless Buttweld, Seamless																	

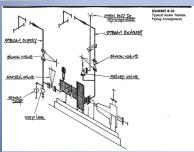


6. Preparation of Piping deliverables like

Piping Layouts, Piping ISO's, Support drawing, Pipe rack study sketch Nozzle orientation etc.

Example Piping ISO





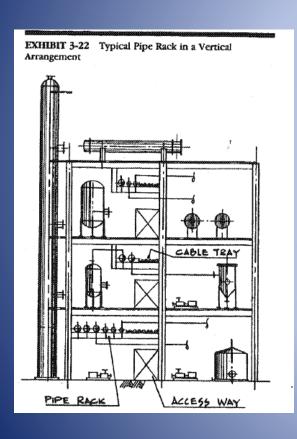
Example MTO Generation

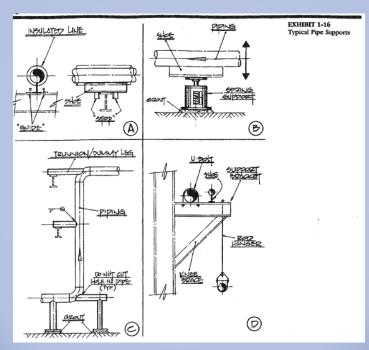
ITEM	DESCRIPTION	DIAMETERS	ENDS	RAT SCH	MATERIAL	QUANT.
2 3 4 5 6 7 8	HALF RED. COUP	8' 6' 1' 8' 6' 6'		STD 20 STD 20 20 20 3000 20 150 STD 150 20	ASTM A53 Gm. B S ASTM A53 Gm. B S ASTM A234 Gm. WP ASTM A234 Gm. WP ASTM A234 Gm. WP ASTM A105 ASTM A105 ASTM A105	3499 2 3 1
	CONTROL VALVE GATE VALVE	8 '	RF RF	150 150		1 1

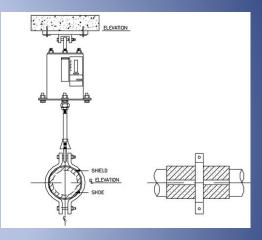


Example Pipe Rack

Piping Support drawing



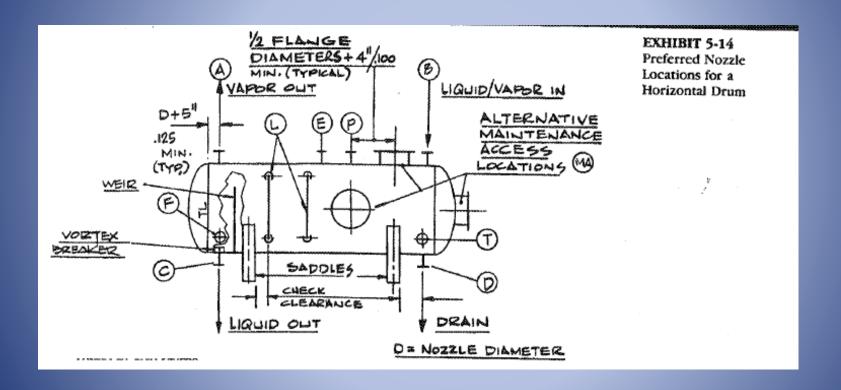






7. Nozzle orientation preparation

Example Nozzle orientation drawing





8. Preparation of 3D model





In addition to that students know about....

- ➤ Piping Design basis
- Basics of feasibility study, costing, planning etc.
- **▶** Preparation of TBE (Technical Bid evaluation)
- ➤ Review and refer P &ID and PFDs
- **➤** Review and refer vendor drawings
- **▶** Prepare datasheet for specialty items
- **▶** Prepare stress analysis report



Our students can work in

- -Designing
- -Drafting
- -3D modeler
- -Piping Stress engineer
- -Piping Layout engineer
- -Piping Material engineer
- -Construction site piping foreman
- -Erection and commissioning
- Maintenance engineer
- -Pump / Compressor / Heat exchanger ...Rotary / static equipment manufacturing company post



Field where they can work

- -Design Consultancies
- -EPC & EPCIC
- -Offshore & Onshore
- -Chemical Plant
- -Pharmaceutical Plant
- -Oil and Gas Companies
- -Water treatment plant
- -Pipe and Pipe fittings manufacturing companies
- -Valve manufacturing companies





Program Overview

- ✓ Comprehensive program designed based on real industry practices.
- ✓ Covered all major topics relative to process plant piping , detailed engineering , stress analysis etc.
- ✓ To fill gap between your valuable engineering knowledge and industry practices.
- ✓ Numerous examples Lessons learnt from industry
- ✓ Explanation through Videos e.g. <u>B/F valve</u>
- ✓ Test and tutorials based on industrial work
- ✓ At the end of program we will practice interview and working culture practice.



Thank You

