

SPT

**SCHOOL OF
PETROLEUM
TECHNOLOGY**



PDPU

**PANDIT
DEENDAYAL
PETROLEUM
UNIVERSITY**
ISO 9001:2008

**INTERNAL QUALITY
ENHANCEMENT CELL
(IQEC)/ INTERNAL QUALITY
ASSURANCE CELL (IQAC)
REPORT**

School of Petroleum Technology

Pandit Deendayal Petroleum University, Gandhinagar

2017-18

Teaching and Learning Process

1. SPT has improved teaching and learning process for the prospective and current students in line with the universities having good QS Rankings. In order to so, a “Learning-Centric” environment have been created rather than “Teaching Centric”.
2. 10% of the course will be taken by the Industry Faculty so that students can be exposed to Live Industry Projects. This will help the students in learning industry driven problems and solutions.
3. In examination system, for the new budding engineers, 25% weightage will be given to continuous evaluation which includes quizzes, flipped classrooms, home assignments, class test and group activities.
4. Eight semester of Final Year B.Tech Students is kept light. Students can opt for attending an internship of 6 months as part of their development and career selection process.
5. The comprehensive project will be partnered by PDPU-SPT faculty and a mentor from Industry. Both of them will be part of the evaluation and grading system.

Faculty Enrichment Strategy

Faculty Industry Immersion Programme have been started in the University in which faculty based on their interest take an exposure of Industry and understand the day 2 day practices of Industry. Three FIIP have been conducted in the past and approximately 90 Faculty were immersed in this initiative. To name a few, the company name are listed as below –

1. Shell LNG Hazira Pvt. Limited
2. Reliance Jamnagar Refinery
3. Selan Exploration
4. HLS Asia
5. Oil and Natural Gas Corporation Limited
6. Adani Gas Limited etc.



Live Demonstration of Fire Safety Drill in Gujarat Gas



HLS Asia Pvt. Limited

Resource Generation and Consultancy

Faculty are mandated to take live project in the Industry as Research and Consultancy. Minimum resource of Rs. 50, 000 need to be generated as a consultancy money by each faculty. Recently, one project have been received from KEI Rsos to work on Gas Fields of Godavari. Faculty can also spend few months in the Industry to understand the best practices and work on the live projects. Junior Faculty under the mentorship of senior faculty can do such type of projects.

Centre Developemnt

1. Center of Excellence for Geothermal Energy

Pre-feasibility Studies

1. Remote Sensing over entire state of Gujarat
2. Geochemical Study of water samples from 17 hot springs across Gujarat

Exploration Activities in Dholera, Unai and Gandhar

1. 2D and 3D Magnetotellurics
2. Gravity Survey
3. Refraction Seismic Survey
4. Extensive magnetic Survey across state of Gujarat
5. Drilling of Geothermal Wells along with logging and soil testing

Collaborative Approach by CEGE

CEGE is working with various institutions and organizations in India and abroad for technical collaborations, knowledge exchange and expanding operations and research.

- CEGE has signed an MoU with **DeKT University, Kenya**
- CEGE has signed an MoU with **ONGC Energy Centre** and working jointly with them for exploration strategies in Gandhar, a prominent oilfield.
- CEGE will be working with **Iceland GeoSurvey (ISOR)** for deep drilling project and innovative geothermal exploitation techniques.
- CEGE will work with **S. D. Agriculture University** for building cold storages using Geothermal Energy

Salient Features of CEGE

1. Carrying out unique and innovative projects of national importance such as 3D MT survey, Space H/C system, ORC, Geothermal Well in Unai
2. Robust infrastructure with instruments like Gravimeter, DGPS, Magnetometer and Seismic instruments and software like WingLink, Oasis Montaj, ProSource, Surfer/Grapher, and Trimble Business Centre
3. Filed a Patent on Geothermal Heating and Cooling and presented the case in Stanford Geothermal Workshop
4. Organised Four International conferences/workshops for knowledge exchange

5. Academic benefits by numerous reputed publications, Ph.D., M.Tech and B.Tech projects
6. CEGE Work recognised and appreciated by MNRE and various other agencies

2. Drilling Cementing and Stimulation Centre

DCS Lab can contribute significantly in drilling and production enhancement activities of oil industry. Can impart the basic knowledge to the academia, faculty and research scholars by way of R&D activities in this domain and will help in improving the productivity of oil and Gas wells towards the overall recovery of the field.

Innovations

1. To demonstrate the process of cement slurry design, formation damage evaluation and proppant conductivity in a new way.
2. To carry out research projects by simulating down hole conditions to meet the challenges of oil and gas industries for HP-HT wells.

Accomplished Objectives

1. Real Field project from Joshi Technologies on Proppant analysis is underway
2. MOPNG and CMD ONGC visited the research center for future collaborations
3. In final stage of signing MoU's with IRS, ONGC and WSS, ONGC for Joint Research
4. Participants from 20 major oil and gas industries attended Technical Session to deliberate the utilization of DCS research center
5. Two M.Tech. thesis and two B.Tech. projects have been successfully completed
6. Two Journal papers have been published
7. Experiments has been inducted in both under graduate and graduate courses
8. Two B.Tech., one M.Tech. and one Ph.D. research work is underway