Petroleum Engineering:

Energy is a key component in our everyday lives. A secure energy future requires a balance between environmental impact and affordable supply. The role of a Petroleum Engineer is to recover oil and gas from the earth in order to satisfy the energy hungry world we live in. Think exploration and drilling, think production and processing, think transport and even think environmental impact. Petroleum engineers work in all those areas and more, with a particular focus on the economics that drive this highly volatile industry. If there's a more sustainable way to do it, one that's better and more economical, you can bet a petroleum engineer will soon discover it.

It requires the student to study and gain expertise in the following areas –

- 1. Reservoir Studies
- 2. Gas Hydrates
- 3. Environmental Impact of Petroleum Fluid Operation
- 4. Characterization of Crude oil
- 5. Development of Computer Software
- 6. Polymer Synthesis and Characterization
- 7. Profile Modification
- 8. Development of Novel Fracturing Fluid
- 9. Characterization and Separation of Oil-Water Emulsion

Some of the good colleges which offer petroleum engineering in India are:

- 1. Indian School of Mines
- 2. University of Petroleum and Energy Studies
- 3. Rajiv Gandhi Institute of Petroleum Technologies
- 4. Pandit Deendayal Petroleum University
- 5. Maharashtra Institute of Technology

Job Prospects

Career prospects are quite attractive in the petroleum sector as petroleum companies have great influence and offer attractive salaries to employees. The demand for petroleum and petroleum products is only expected to increase and there is great demand of efficient petroleum engineers. Almost every young graduate in petroleum engineering gets a job offer from petrol and gas companies from India and overseas.

Petroleum Engineering graduate is given the job to discover natural sources of oil and examine the same. Similarly, developing the latest machines and equipments which can be used in the extraction and processing of oil is part of the job of a petroleum engineer. Petroleum engineers have global career and are hired by global oil companies.

Whereas private petroleum companies offer attractive salaries to petroleum engineers, government sector oil companies are not far behind in terms of paying attractive salaries and bonuses to employees.

Pay Packet

As in every other industry, remuneration in petroleum engineering is determined according to the knowledge, skills, qualification, capabilities and experience of the candidate. Moreover, if the candidate is from top notch engineering college he may get a job which can pay salary between Rs 25,000 and Rs 30,000 per month. People working in petroleum producing MNCs get median annual salary of around \$100,000.

Top Companies

- Indian Oil Corporation
- IBP Co. Limited
- Lubricants India
- Oil Gas India
- Petrosil Group
- Shiv-Vani Universal
- ONGC
- Bharat Petroleum
- Reliance Petroleum Limited
- Essar Oil Limited
- Gas Authority of India
- Hindustan Petroleum Corporation
- Aban
- Oil India Limited
- Tata Petrodyne
- Bongaigaon Refinery
- Gas Projects (India) Private Limited
- Hindustan Oil Exploration Company Limited
- India LPG
- Kochi Refineries Limited