Course Type	Course Code	Name of Course	L	T	P	Credit
DP	NPEC506	**Production Logging Practical**	0	0	3	1.5

Course Objective

The objective of the course is to develop knowledge interpretation of open hole well logs and production logs.

Upon successful completion of this course, students will:

- Have the ability to interpret different open hole well logs and calculate different reservoir rock and fluid properties
- Have the ability to interpret production log, find out major production/injection zone and find out the production problems in oil-gas wells

Learning Outcomes

Sl. No.	Name of Experiment	Contact Hours	Learning outcome
1	To import open hole well Logs: Quality check of well logs, making formation top and identifying different zones in the well	6	Able to check quality of well logs and identify different zones
2	To import core data analysis and correlation with open hole well logs	6	Able to analysis core data and correlate with open hole logs
3	To calculate Shale volume using different methods	3	Able to calculate shale volume
4	To calculate the porosity and Lithology of the formation using two log crossplots and other methods	3	Able to calculate porosity and lithology using different methods
5	To calculate the water saturation and permeability using different methods	3	Able to calculate calculate the water saturation and permeability
6	To calculate Effective porosity, water saturation, formation water resistivity using crossplots: Pickett plot, Hingle plot	6	Able to calculate effective porosity, water saturation, formation water resistivity using cross plots
7	Rock typing using different methods	3	Able to differentiate different types of rock
8	To import production logs, plotting visualization and quality check of logs	6	Able to plot production logs and check quality of logs
9	To calibrate flowmeter spinner log and identify calculation zone and compute fluid velocity	3	Able to calibrate flowmeter
10	Final interpretation and flow rate computation using spinner-temperature-density-hold up combo	3	Able to calculate flow rate using spinner-temperature-density-hold up combo
	Total Contact Hours	**42**	

Text Book

1. Production logging – Theoretical & Interpretive Elements, A. D. Hill, SPE Monograph Series Vol. 14,1990
2. Cased-Hole Log Analysis and Reservoir Performance Monitoring, Richard M. Bateman, Springer, 2015

Reference Books:

1. Wireline Formation Testing & Well deliverability, George Slewal, PennWell, 2012
2. Laboratory Manual deigned by Couse Instructor