

Two Day Workshop on
“High-performance WBM and LCM Technology”



Date: – October, 2025

Organized by: Deysarkar Centre of Excellence in Petroleum Engineering, IIT Kharagpur

Course Principal Coordinator: Dr. Sandeep D. Kulkarni, Associate Professor

TRAINING SCHEDULE

DAY – 1: No. of Hours: 08

Sessi on	Time	Topic	Class	Venue
1	10:00 AM – 12:00 Noon	High-performance Water-based Mud (HPWBM) Systems: • <i>Impact of Additives:</i> Clay (pre-hydration mechanism) vs. biopolymer vs. synthetic polymer. • <i>Impact of salt type:</i> Monovalent vs. Formate. • <i>Impact of weighing material:</i> Barite vs. Micromax.	Theory	Seminar Room
2	12:00 Noon – 01:00 PM	Designing and Formulation Drilling Fluids	Theory/ Software	Seminar Room
3	02:00 PM – 04:00 PM	HPWBM Comparative Study: LTLP Fluid Loss	Practical	Seminar Room
4	04:00 PM – 07:00 PM	HPWBM Comparative Study: High-temperature Ageing	Practical	DT Laboratory

DAY – 2 : No. of Hours: 08

Session	Time	Topic	Class	Venue
1	10:00 AM – 11:00 AM	Lost Circulation Material (LCM): Characterization and WBM performance evaluation Methods	Theory	Seminar Room
2	11:00 AM – 01:00 PM	LCM Particle Size Distribution (PSD) and Impact of LCM on WBM Rheology	Practical	DT Laboratory
3	02:00 PM – 06:00 PM	HPWBM Comparative Study: pH, Viscosity & HTHP Fluid Loss (post-ageing).	Practical	DT Laboratory
4	06:00 PM – 07:00 PM	Discussion and Course Material Handover	-	Office