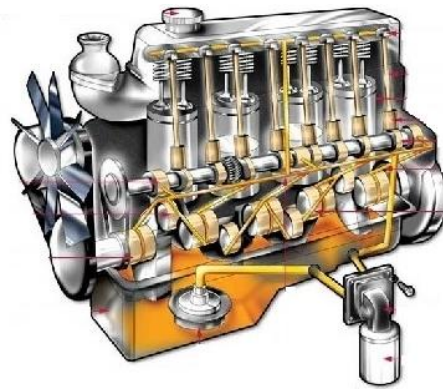


16 Hours **ADVANCED** Training on

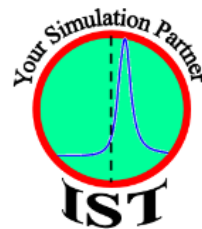
Lubrication System Simulation in GT-SUITE

Case Study



Practice

Access to Live Videos



IST Pvt Ltd

EV, HEV & Engine Development
Staff Augmentation
Corporate Training

Training Fees

Category	Training Fees per participant (Rs.)
Company Sponsored	15,000.00
Individual Sponsored	13,000.00

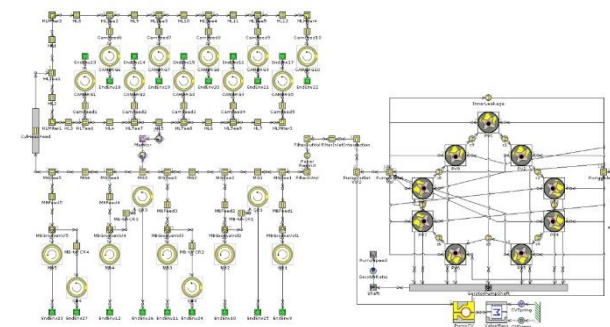
For registration, please contact us:

- E-Mail ID: subir.mandal@integratedsimtech.com
- Contact No.: +91-9763909935

This advanced training module is about modeling and simulation of lubrication circuit using 1D simulation GT-SUITE and GEM-3D software. Different areas include flow distribution, pressure drop, journal bearing design, priming, pump dynamics, transient response, etc. Detailed training agenda is mentioned below.

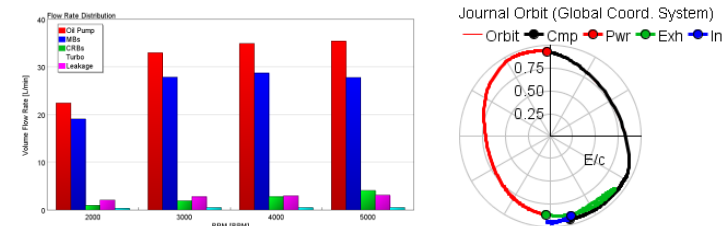
□ Lubricant circuit modeling

- ✓ Data required to build and calibrate lubrication circuit
- ✓ Modeling of each component of a lubrication circuit including oil sump, oil passage, filter, pump, relief valve, cooler, main bearing, camshaft bearing, CRBEB, CRSEB, turbo leakage, piston cooling nozzle, crankshaft
- ✓ Solver basic of flow and heat transfer model
- ✓ Subassemblies - Internal, external, and encryption
- ✓ Model setup - Initialization, parameter sweeps, convergence, run setup, case setup



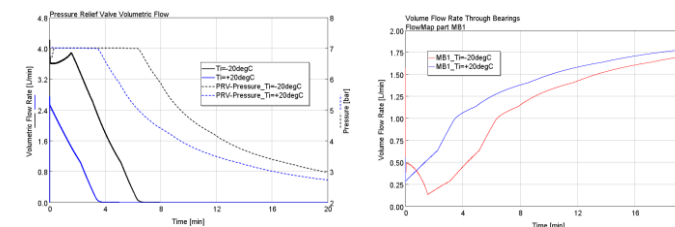
□ Steady state lubricant circuit analysis

- ✓ Understanding the use of calibration parameters
- ✓ Predict and analyze performance of complete lubrication systems – flow distribution, pressure drop, power loss, minimum oil film thickness, bearing pressure, bearing load, orbit, thermal parameters,



□ Transient thermal response

- ✓ Bearing map generation and its use
- ✓ Transient response due to change in temperature and speed on warm-up, pressure development, flow rate, pressure relief valve behavior

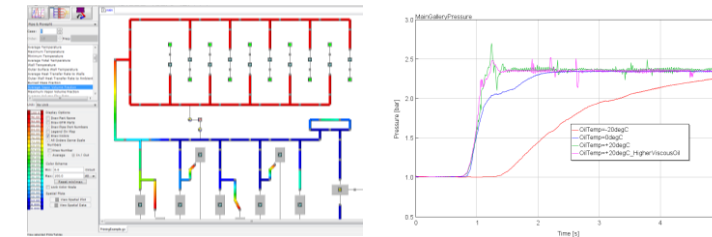


Who Should Attend?

- Working professionals/ planning to work in engine lubrication system
- OEMs/ Consulting Companies
- Engineering Students/ Professors/ Scholars

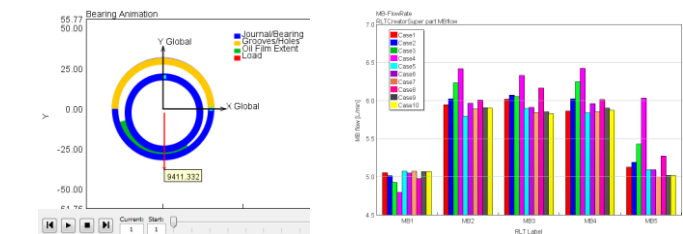
□ Lubricant system priming

- ✓ Investigation with different oil types, temperature
- ✓ Improvement in system priming



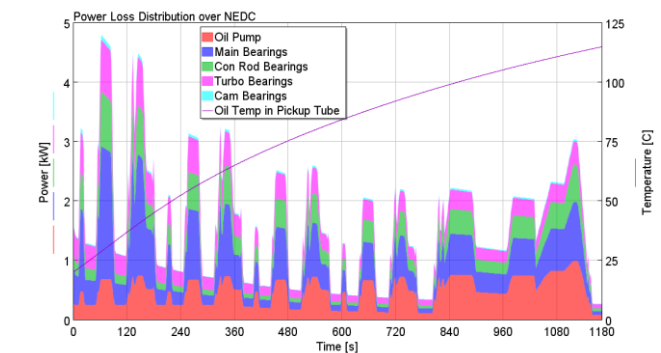
□ Optimize bearing design variables

- ✓ Direct/ DOE optimization
- ✓ Performance parameters – Oil flow, Minimum oil film thickness, bearing pressure, orbit, power loss, thermal parameters,



□ Lubricant system power consumption reduction

- ✓ Power loss distribution over driving cycle
- ✓ Investigate with change in system design and boundary variables



Trainer

- Over 19 years of industrial experience in diesel, gasoline, gas engines; HEV & EV; and aircraft engines
- 1D simulation domain – engine performance, cooling, HVAC, HEV & EV drivetrain, battery, lubrication, acoustics, hydraulics, cranktrain, and valvetrain
- Worked with GE, Cummins, ESI, MTU (Rolls-Royce), IST
- Conducting training for 10 years
- GT-SUITE user for 14 years
- M.Tech. from IIT Kharagpur

