

Lecture Plan

1. Carbon Neutral
2. Transport Phenomena
3. Convection-Diffusion Equation
4. Continuity Equation
5. Constitutive Equations
6. Flow Equation
7. Boundary and Initial Conditions
8. Analytical Solution of 1D Single Phase Flow Equation
9. Numerical Solution of PDE
10. Numerical Solution of 1D Single Phase Flow Equation
11. Example of Numerical Solution of 1D Single Phase Flow Equation
12. Numerical Solution of 1D Single Phase Flow Equation Considering Gravity
13. Numerical Solution of Multi-Phase Flow Equation
14. Compositional Simulation
15. Thermal Simulation
16. Mechanics
17. Geomechanical Simulation
18. Thermo-Hydro-Mechanical Simulation
19. Practices of CCS simulation