

Consultant / Trainer

Janpieter van Dijk



The Petrogenium (in collaboration with EPTS) Principles of 3D Computer Modelling participants in this course will gain a solid foundation in the principles and frameworks of 3D computer modeling, including 3D geomathematics and its applications in Physics, Chemistry, and Natural Sciences. They will explore green IT, cloud computing, algorithms, and programming languages, as well as classical 3D working environments used for seismic mapping, reservoir modeling, and integration with CAD and GIS. The course covers advanced modeling concepts such as DEM, DTM, TIN, Voxel, Tetrahedral grids, Nurbs, and fuzziness, and connects these to emerging technologies like Digital Twins, Artificial Intelligence, Virtual Reality, and Machine Learning.



Participants

Technical staff, Technical Leaders, SME, Team Leaders, Project Managers but also Department Managers in Geosciences, Data management, Geologists, Geophysicists and Reservoir Management in O&G, Geothermal Energy Generation and CCUS.



Learning Objectives

The learning objective of this course is to equip participants with a comprehensive understanding of 3D computer modeling principles and their practical applications in engineering, geosciences, and digital innovation. Participants will learn to apply 3D geomathematics and modeling techniques to solve real-world problems, integrate classical and modern modeling environments (such as CAD, GIS, and BIM), and utilize emerging technologies like Digital Twins, Artificial Intelligence, and Virtual Reality. The course aims to develop practical skills in building and interpreting static and dynamic reservoir models, working with advanced 3D grids and data structures, and efficiently linking various digital environments for geoscience and engineering workflows.

Programme

5 DAY Course

Part 1 – Overview of the Role of 3D Computer Modelling in the New Era of Sustainable Energy

Part 2 – Applied Physics, Chemistry, and Mathematics for 3D Computer Modelling and data management

Part 3 – Programming Languages, Hardware and Software, the Internet of Things

Part 4 – 3D Geoscience: Modelling Environments, SEM, DT, VR, ER, AI

Part 5 – Group Exercise of Building a 3D model and Close Out Session.

Why select Petrogenium.?

The above support will be provided by principal consultants with 30+ years world-class experience in the technology and hands-on know-how from operation of refinery units.

Contact Petrogenium.:

Email: training@petrogenium.com

Website: <https://www.petrogenium.com/training/>

Because Experience Matters