Formation - Introduction to Geothermal Energy Uses and Operations

GEOTHER-EN-P | Présentiel | 3 jours

This course provides an introductory knowledge of geothermal energy uses and operations

Niveau
Découverte

Public
Technicians and decision makers of the G&G, Reservoir engineering, drilling, construction, production and maintenance domain but out of geothermy discipline

Objectifs
Attendees will be able to implement the following skills:

- Understand how geothermal energy works, from production to usage
- Know about exploration and evaluation techniques
- Learn about technical and safety specifics in geothermal well drilling and operating

Pédagogie & ressources techniques

- Case studies
- Numerous illustrations and videos

Évaluation des acquis

- Trainees are assessed throughout the training through practical application phases and interactions with the trainer
- A final on-the-spot evaluation may also be carried out at the end of the course and/or at the end of each module using tests designed to verify the learners' understanding and assimilation of the knowledge linked to the training objectives

Prérequis
No prerequisites are necessary to follow this course

Responsable
IFP Training instructors, with expertise in the field and trained in modern teaching methods adapted to the specific needs of learners from the professional world

Programme

PART I: INTRODUCTION TO GEOTHERMAL ENERGY

EARTH, AN ACTIVE PLANET

Earth structure and tectonics.
Thermal regime of the Earth.

HEAT FLUX & GEOTHERMAL GRADIENT

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Theoretical considerations on heat transport and storage in rocks.
The geothermal gradient.

RESERVOIR TYPES & USES

Dry rocks, porous and fractured reservoirs.
Geothermal single wells and doublets.
Geothermal heat exchanger.

DIFFERENT KINDS OF RESOURCES

Low temperature.
High temperature.

APPLICATIONS OF GEOTHERMAL ENERGY

Direct use of heat.
Power generation.

PART II: FROM EXPLORATION TO PRODUCTION

EXPLORATION

Exploration techniques.
Identification of potential reservoirs and geothermal resources.

DRILLING A WELL

Specifics of geothermal well planning.
Drilling issues: well stability and drilling fluid cooling.
Drilling risks: steam, gases, and seismic events.
Well stimulation.

EVALUATION

While drilling: mud-logging and temperatures.
After drilling: well evaluation and testing.

OPERATION HAZARDS

Geological.
Environmental.
Technical.

PRODUCTION

Geothermal plants and networks.
Pros and cons of geothermal energy.

Sessions

Rueil-Malmaison - Du 02/11/2026 au 04/11/2026 **3390 €/HT**

IFP Training est référencé au DataDock. Rapprochez-vous de votre OPCO pour connaître les possibilités de financement de cette formation.
Pour vérifier l'accessibilité de cette formation à une personne en situation de handicap, contactez notre référent à l'adresse suivante : referent.handicap@ifptraining.com

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