

# Application of CODE\_BRIGHT-GiD to Geotechnical and Environmental Engineering Problems

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CODE\_BRIGHT is a program that allows for thermo-hydro-mechanical analysis in geological media. It consists of a Finite Element program developed at the Department of the Geotechnical Engineering and Geosciences of the Technical University of Catalonia (UPC) combined with the pre/post-processor GiD developed by the International Center for Numerical Methods in Engineering (CIMNE).

The use of the program can be done with the help of a reference manual. However, the initiation of new users happens more easily if tutorials are available. A set of tutorials starting from basic applications permits new users to learn progressively from very basic problems which are explained step-by-step and to progress towards more complicated applications. The advanced tutorials are explained with more emphasis on the specific cases and pay less attention to aspects that are already included in the basic tutorials.

On the other hand, recent developments and applications of CODE\_BRIGHT have been carried out in the field of gas flow through porous media, carbon sequestration, soil freezing, earth dam modelling, and soil-atmosphere interactions, among others.