

**ENSTTI TUTORING
PROPOSAL 2011-017**

Tutor(s) name and affiliation: **Hanen AMOR, Marc BOURGEOIS, Gregory MATHIEU - IRSN**

Title and short description of the tutoring work :

Integrated performance assessment of a radioactive waste disposal

To support the regulatory review of safety assessment carried out by the radioactive waste management organization, IRSN has developed the MELODIE software to model the transfer of radionuclides from the radioactive waste packages to the geosphere.

The first task of the tutoring period will be to learn using the MELODIE software in the framework of the safety assessment of a surface or underground repository. This model could be based on several disposal systems and situations defined by IRSN or proposed by the trainee for the problem he is interested in. A second task would consist of learning more in depth the capabilities of the software by participating to the process of validation undertaken by the MELODIE team for some specific complex situations.

The trainee will be trained to use MELODIE and will gain experience in safety assessment and the assets of computational modelling in support of regulatory review activities.

Background and experience of the candidate:

The candidate should have a background in safety assessment with an experience in computational modelling.

Knowledge of Linux would be appreciated.

English required.

Duration and location of the tutoring :

Location: Fontenay-aux-Roses (Paris area), France

Duration: 3 to 6 months