Int. Winter School on 'Modelling of Corrosion' 2019 - Report

The 4th edition of the int. school on corrosion modelling was held at INSTN Saclay from 28 January to 1 February 2019. It was co-organised by the Nuclear Energy Division of CEA and the chair 'Materials Simulation & Engineering' (MSE) of the University Paris-Saclay. This winter school focused on multi-scale modelling of corrosion. The principle, as for the previous three ones, was to combine courses in the morning and demonstrations or computer tutorials in the afternoon. The speakers were experts in modelling and in corrosion phenomena, coming from France with CEA Saclay, University of Burgundy and ChimieParisTech, from USA with Berkeley and Penn State Universities, and from Japan with Tohoku University.

The program included:

- the atomistic and molecular simulation (1st day),
- the modelling of passivation and depassivation (2nd day),
- the modelling of atmospheric corrosion and high-temperature corrosion (3rd day),
- more global simulations/models, e.g., with galvanic corrosion and cathodic protection (4th day),
- contribution of these models & simulations to damage prediction and facility safety (last day).

As for the previous editions, all the available places (35, limited by the number of PC stations) were taken (a dozen persons even had to be refused). Among the participants, two thirds were French and the last third were Koreans, Japanese, and other Europeans. It should be noted that almost half of the participants came from the non-nuclear sector (e.g., three from Total and two from Michelin). It can be concluded that this school was a great success (also see the right picture)!

This school was supported by the EFC & World Corrosion Organization (WCO) and organised by D. Féron (EFC Past-President and WCO Vice-President, CEA Saclay), L. Martinelli (Vice-Chair of EFC-WP4, CEA Saclay) and C. Meis (Head of the MSE chair, INSTN).

During the lecture of Professor M. Yamamoto (JAEA & Tohoku University, Japan).
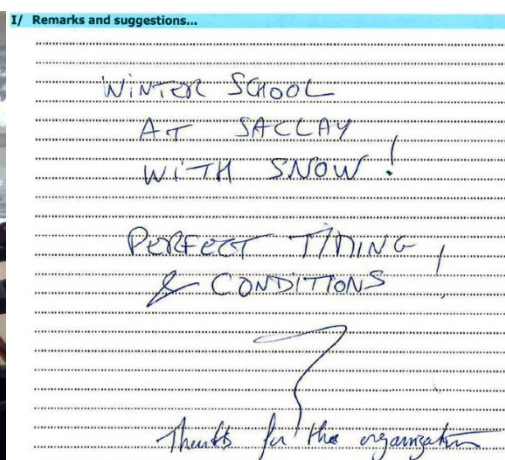
One of the many positive comments from the evaluation questionnaire (100% positive feedback).