Advisor internship conclusions

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I would like to communicate that the internship carried out by Oriol Falip Garcia in the company Stampack GmbH concluded satisfactorily.

The internship started on 17/02/2020 and finished on 27/08/2020, with a total of 450 hours.

The main task assigned to the student was the implementation of the Dynamic Condensation method in the Stampack kernel. In order to reach the objective, the following sub-tasks were completed satisfactory:
  a) State of art about dynamic condensation method
  b) Evaluate different method for coarsening meshes
  c) Implement method in the Stampack kernel
  d) Validate the implementation
  e) Evaluate the results obtained
  f) Write a technical report

The results are very interesting and reveal that damping plays an important role when the Dynamic Condensation method is employed. Thus, the setting study of this parameter is proposed as future work.

From the student learning point of view, he considerable improved his programing skill. In addition, he learned and programed in the Fortran 2003 languages. He also studied, implemented, and validated a technique to speed up explicit algorithms.