Assignment 3: Critical review of a seminar

Latest advances of PFEM for coupled problems

This a critical review of the seminar "Latest advances of PFEM for coupled problems" done by prof. Alessandro Franci on 4th of December 2019 at CIMNE in the northern campus of Polytechnic university of Catalonia. The goal of this seminar was to give us the latest information about the PFEM (particle finite element method) and its usage in the Kratos metaphysics simulation program.

The talk consisted of three parts. The first part was a brief introduction to the PFEM theory and the mathematics behind it. The second part was the usage of PFEM in natural hazard simulations for the free surface fluid and FSI analysis and finally in the third part he talked about the PFEM-DEM coupled formulation for particle laden flow simulation and presented the latest research activities going on in this field and what the future of this field will be. In my opinion the presentation was partitioned really well in this three parts. The build up to the main idea was very good and giving a brief but helpful introduction to PFEM was very good specially for people who didn't have any information about it. In the second part of the presentation when he explained that he started working in this field because of the land slide that happened in his country, it was very interesting and showed his aim to simulate this hazard in order to save thousands of lives.

From the beginning of the seminar his confidence was very high and by the end he answered all the questions very well which shows his knowledge in this field. His voice during the talk was a little monotone and this caused us to be distracted at some points in the seminar. His body language during the presentation was good but the presentation could be a little more dynamic.

In the end we can say that the presentation was well delivered and the structure was made in a way that everyone could understand the facts even without any prior knowledge in the PFEM field. The fact that there were no questions about the main facts of the presentation shows that the quality o the presentation was very good and it was delivered very well.