On the conference held by C. Park on Data-Driven Engineering Modeling

In a time where the engineering is rapidly changing by the developments on computer graphics and signal processing capabilities, the Professor Emeritus C. Park hits the advances in mechanics education with an engaging topic of his seminar held in October 2019, Barcelona.

In order to answer the question of weather continuum mechanics teachers are taking a full advantage of information technology advances, Park suggests that it is interesting to see back to understand the current context. The concept of applied mechanics as a didactic unit has been disappearing from the universities as they are becoming part of other existing departments, which require of new visual patterns and quantitative solutions to be incorporated to take advantage from the evolving computer post-processing soft-wares.

In the search for the indispensable ingredients for data-oriented modeling, Park lines out the rapid and continuing development of signal processing frameworks nowadays as an insight that is only possible to get by going beyond physics with the aid of visualization techniques.

However, as this review is not meant to exclude the critical part, I would like to express that, as an engineer, Park is able to communicate successfully as he has presumably had many years of teaching experience, and is therefore able to understand the knowledge base and interests of his audience. He manages it by including examples and stories that help the audience to engage with the content even if dealing with difficult topics. He also made use of analogies, such as relating a temperature map with the equivalent Navier-Stokes equations on weather forecasting when expressing the importance of quantitative data and visualization techniques (data-driven modeling). With this, he uses the audience's prior knowledge to explain the concept. However, he sometimes misses the target by using too many colors and slides which are not suitable for reading as they contain much text and few images. It is therefore difficult for us to determine the most important information on the slides and keep attention on what he is trying to express.

Then, in his speech, Park managed to keep our attention with his verbal skills and style, but on my opinion he did not explain correctly why is his research important to us (the students) and how can we benefit from this new way of teaching to our studying routines or data-oriented skills. In this way, I think it is more difficult to create connections with the audience if the speaker does not explain why does it matter to them.

Eventually, striking up with a precise image of what he is trying to communicate, Park is able to transfer his enthusiasm of the matter by using a natural style, although he may lack some energy (which is to be expected by his age). However, is clearly his age that has given him the practice to develop his effective style, feeling comfortable in front of the audience and enjoying as well the exchange of ideas when answering questions.