

REPORT: Summer School “Fluidic MEMS” – Jade Hochschule

During this 3-week course, I had the opportunity to discover and deepen my knowledge about microfluidics. Moreover, I learnt a lot about German culture and met a lot of colleagues from all over the world.

The courses were well planned and easy to follow: the professors and the team, who helped us for the experiments, were prepared and enthusiastic.

The first week (“Basics of Microfluidics” with prof. Schlüter) we had the opportunity to “put the hand” in the machineries, exploited for the fabrication of a microfluidic chip. It was a useful experience because we had the opportunity to learn on the field (it is not trivial: last year I was in another summer school and the experimental parts were almost fully theoretical). During the second week (“Microfluidics Engineering” with prof. Luque and prof. Gaßmann), in addition of a small theoretical part, there was a long work on the experimental. We firstly discussed how to approach the engineering problem of the microfluidic chip we wanted to fabricate, we spent time in laboratory to recreate it and a lot of time in evaluating the results. Also, during this week, we deepened our knowledge not only theoretically but also practically speaking: we used different machineries and tools in order to achieve our results. The last week (“Biomicrofluidics Applications” with prof. Lima and prof. Gaßmann) was focused onto the learning of two important softwares in the microfluidic field (Comsol Multiphysics, ImageJ).

As regard the excursions, we had plenty of them: the first weekend we visited Bremen and Papenburg, where we learnt about the process to create big cruise ships; the second weekend we went in Hamburg and we visited two companies as well: Loewenstein and Airbus. Besides the beautiful cities we visited, and the thing learnt about how to create a cruise ship or big airplanes, the time spent in social activities was useful for us in order to know more about each other. It was awesome walking a lot (almost 30 km per day), talking and laughing with all of the colleagues, professors and the staff of the International Office.

I have to mention also the beautiful experience of living in a boat. We, practically, lived together and everything was thought and made in group (dinner together, playing cards, joking around, have fun together). This bring me to a final consideration: the people presented as *colleagues*, in the past sentences, may be considered as friends, and that is the most awesome thing happened during this summer school.