

**IT Students – Workshop**  
within Strategic Partnership of  
Leibniz University and Peter the Great St. Petersburg Polytechnic University

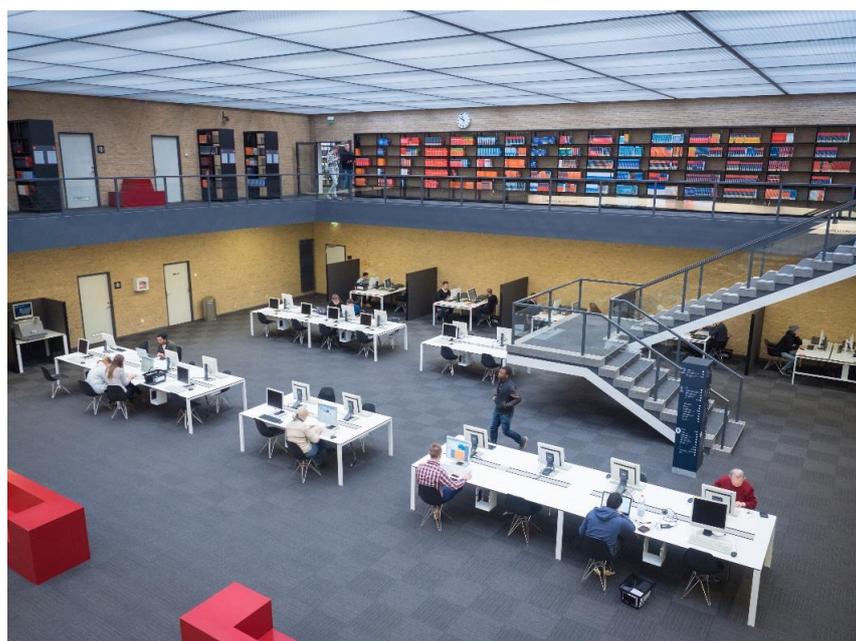


06.11.16 – 13.11.16  
Hannover

Our group from Peter the Great St. Petersburg Polytechnic University has been staying in Hannover for only one November's week, but we have definitely obtained useful and unique knowledge and improved our IT skills, which can be used in the future. The group included eight people: four master students, three bachelor students and our supervisor. In spite of the different level of training among the group participants, the trip was undoubtedly educational, because of the good prepared program, which consisted of different types of activity. We were staying in "Charlton" hotel, which is situated in the center of Hannover. The location was convenient for us, because the hotel is located very close to Leibniz University and the city center, so it was too hard to get lost.

The first day of our academic week was full of new acquaintances and attainments. We had a presentation, which was carried out in English, in the international Office. The presentation was really interesting: the slides illustrated the history of Leibniz University, its structure and the current state of affairs. For example, we have learned that Leibniz University building is the former castle. It is clear that exterior of the University has made a strong impression on the female part of the group. Then we had a Campus tour and attend University's canteen. After the lunch break we had a lecture on Theoretical Informatics, which was delivered by Arne Meier. He told us about finite automata, pushdown automata, linear bounded automata and Turing machine, their core characteristics and organization. Moreover, we have gained information about the Chomsky hierarchy and optimization time. This lecture was completely understandable due to the professional skills of the lecturer.

The second day was not worse than the first day. We had an excursion to the University Library, which is one of the largest technical libraries in the world. This library includes 9 million publications, 5 million books, 3 million microfilms, 1 million magazines and other issues. We were honored to see a lot of Russian publications. Our guide had the skills of a good orator; therefore, we have acquired useful information. The interior of the library is also very impressive: modern furniture, technics and design. Furthermore, everything is made for students' comfort. For instance, students have an ability to study or do their homework in the small rooms not to be interrupted by the noises or nuisances.



*Pic. 1. The Library*

After the excursion we had to visit a lecture on Visual Analytics and the lecturer was Professor Ralph Ewerth. The vast majority of the group participants were amazed by this lecture. We have had a good look on different terms such as perception, pre-attentive processing, feature integration theory and some rules of perception such as proximity, similarity, closure, continuation and so on. This lecture was carried out in a dialog format – a good practice for better understanding. I want to notice that we have done many funny tests, which were connected to perception. To sum up, this lecture possessed both educational and entertaining components, what was significant in the matters of learning the new material.

The lecture mentioned before was not the last time, when we saw Professor Ewerth. On the third day we had presentations about Data Mining and laboratory work on the subject of Data Mining, exactly, the object classification in images using WEKA. Professor Ralph Ewerth and Professor Eirini Ntoutsis gave these presentations and conducted the lab. Presentations were informative and cognitional. To be honest, not everyone from the group had some fundamental knowledge about Data Mining and WEKA software, but this situation was not an obstacle for professors to bring the main idea clearly. The lab was divided into two independent parts: the lab about classifying objects into three classes, which contained circular opaque objects, circular objects with a hole and long objects correspondingly, and the lab about identifying species of Iris, namely Iris setosa, Iris virginica and Iris versicolor, on the basis of their sepal length, sepal width, petal length, petal width. We have coped with assigned tasks perfectly!

Then we had a meeting with the representatives of L3S research center, who have told us different facts about their projects and activity, and looked through the presentations of PhD students. One student narrated about Web Archive and another one imparted about the system, which is intended for people who suffer from diabetes. Presentations were very interesting and they showed the level of training of PhD students, which can be received through the studying in Leibniz University.



*Pic 2. Meeting with representatives of L3S*

Certainly, we did not only obtain information, but also showed some presentations about Peter the Great St. Petersburg Polytechnic University and scientific projects of the group's students. Some of us have reported about Saint - Petersburg, our University, its structure, our chair, which is called "Computer Intelligent Technologies" and achievements of the students, who are studying on our chair. Other represented their projects, which were connected to different areas of information technologies. For instance, management system based on Active Directory technologies, automation of report creation via Oracle Business Intelligence, Reviews Analyzer based on InterSystems iKnow technologies, NoSQL research and data warehouses

were taken into account in matters of our presentations. We hope our reports were useful, intelligible and interesting.

The last activity, which was prepared for us, was participation at the Night of Science of Leibniz University. This event provided many opportunities of acquiring information about different areas such as biology, chemistry, computer science, physics, programming and so on. There were a lot of guests! Eventually, our group has split, that is why everyone has attended different events. Nevertheless, many of us have attended the lecture about Leibniz Supercomputer and an excursion to this computer. Unfortunately, the lecture was conducted in German, so it was too hard to understand anything, but pictures on the slides and names of technologies, which were used, helped us to understand the main idea and some crucial features of the Supercomputer. Then we had the excursion to Supercomputer, which was carried out in English, fortunately. So we have learnt a lot of new things such as architecture of the computer, main tasks, which the computer has to solve, some features of implementation and parallel algorithms.

No doubt, it is necessary to say a few words about sightseeing. We had a city tour, which was operated by nice girl Irina Varinke. The group has attended the Old Town, New Town Hall, Historical Museum, had a look on amazing plastic Nanas. Some of us decided to visit Hannover's Zoo, which is definitely one the coolest zoos. The main peculiarity of this Zoo is that animals live not in cages, but in special areas, which are similar to their natural habitat. We have seen lots of rare and terrific animals such as penguins, elephants, lions, red foxes and pelicans. To be honest, this zoo impressed us greatly.



*Pic. 3. City tour*

To sum up, this trip was one of the memorable events in our lives. We have gained a lot of information, which is associated with various areas of information technologies, which were not familiar to us earlier. Furthermore, we have learnt something new about Germany, its culture and specific character of education. For instance, it is really important to ask questions during

lectures or at the end of the lessons to show to the professor that you have understood the lectures' material. It is supposed that this feature is a difference between German and Russian educational process. Furthermore, students' activity and independence play significant role in the course of education. Also the capability of professors to conduct lectures in English fluently creates a good impression. The vast majority of us start to think about studying in Leibniz University within the framework of exchange programs or ability to take a degree.