## Self-evaluation report about completing a short-term research visit to Institut Aéronautique et Spatial by undergraduate Kiselev Pavel

- 1. Hosting country: France
- 2. City/town: Toulouse
- 3. Dates of staying: from May 21<sup>th</sup> 2013 till July 13<sup>th</sup> 2013
- 4. Visit details:
  - 4.1. Official name of the hosting University/institution: Institut Aéronautique et Spatial
  - 4.2. Name of Hosting Faculty/Department: Space industrial modules
  - 4.3. Aims of visit: to obtain practical knowledge about the methods, standards and technology for elements design of the spacecraft which are used by the European Space Agency
- 5. Initial plan of visit: To study the functional characteristics of energy conversion equipment used by the European Space Agency. To study the characteristics of the output voltage energy conversion devices. To study efficiency measurement methodology.
- 6. Results of visit

The course of lectures at Institut Aéronautique et Spatial was learnt. The course of lectures consisted of five modules which were devoted to different areas in engineering such as space industrial environment, european industrial organization, project management, assurance, quality and standardization, supply chain. As a result of lectures a Multi Choice Questions Exam was passed.

Practical work was done in Thales Alenia Space. Practical work included preparing a response to a request for information for the spacecraft Telkom-3S.

Production of spacecraft in Thales Alenia Space in general was got to know. There were some excursions in Thales Alenia Space and Astrium devoted to spacecraft platform and spacecraft payload assembling and testing.

- 7. Evaluation of the visit efficiency
  - 7.1. evaluation of training suggested at the host institution (if applicable)

Training suggested at the host institution was rather good. It helped to know about general view of spacecraft design at European Space Agency

7.2. teaching staff efficiency (if applicable)

During the training students can greatly improve English language skills. All lecturers were competent in their themes. Teaching staff was able to give studying materials in understandable way. 7.3. new knowledge and competences

Due to this visit we got new knowledge connected with space industrial environment, European industrial organization, project management, assurance, quality and standardization, supply chain, preparing of response to a request for information for the spacecraft Telkom-3S.

7.4. involvement into multicultural and multinational environment/ awareness about other social systems

During visit period I received some experience about multicultural and multinational environment, which can be used in future relations with foreign people in work or studying area.

7.5. awareness of innovative approaches to solving professional problem

Knowledge about ways to solve some professional problem were received. They could be useful for Russian aerospace industry.

7.6. new contacts/expanding professional network

During the visit new contacts with people from Institut Aéronautique et Spatial and Thales Alenia Space were received. They could really widen professional and study relations.

8. Percentage of completing the initial plan of visit

≈70%

9. How much the visit contributed to your future professional/research activities?

The visit made it possible to know about the structure of foreign organizations which work in spacecraft design, about methods, standards which are used by the European Space Agency. In addition I had got contacts for consultation with foreign teachers and specialists. Technical English skills, which were improved due to visit, could be used for professional activities at my job.

- 10. List of documents confirming your successful completion of the research visit (should be attached) As a result of the internship at Institut Aéronautique et Spatial a training certificate related to space industrial modules was received.
- 11. Overall evaluation of the visit

Overall visit to at Institut Aéronautique et Spatial was successful. As a pro, firstly, I'd like to point to good provision with all necessary instruments for studying. Secondly, all lecturers were competent in their themes and were able to give studying materials in understandable way.

But also there were some cons. The first con is that practical work had little crossings with the theme of my master dissertation. Secondly, an access to electrical power subsystem department in Thales Alenia Space to collect information for my dissertation work was denied. As a result it was impossible to get some information.

As a sum, the main internship disadvantage was absence of sufficient number of meetings with engineers that work in my master dissertation theme sphere.

12. What changes would you have made if you were preparing for the next visit of a similar kind?

According to the above, I'd like to make some suggestions about what could be changed for improving next visit of a similar kind. Firstly, before the internship it's necessary to send a supervisor to host organization for determination of studying way. Secondly, it would be good to organize meeting with engineers that work in similar to master dissertation theme sphere for experience exchange.