

## Part E – Motivation

All applicants should include a letter of motivation attached to this application on a separate page. The letter of motivation should describe (in one page) their motivation for applying to this program. Is it possible in the era of smart technologies to understand the behaviour biochemical compounds in the cell/organism aging? Does molecular simulation allow grasping the depth and accuracy of running processes in system? I believe that the Erasmus Mundus Master Program in Atomic Scale Modelling of Physical, Chemical and Biomolecular Systems capacity can provide the positive and comprehensive answers and solutions to these and the other formidable quests.

The technology in the plainest term is template. As I see the Erasmus Mundus Program is the vast and vibrant networks, with leading scientists from all over the world who investigated, adopted or discarded the technology-conscious templates and solutions for the development. The attracting point of the Program is conducting innovative and break-through research. Under the various facets and angles it will be possible to find out extraordinary solutions and produce a good number of challenges in different fields of Science. In my view due to Modelling, particularly though Quantum Physics it will be possible to find systems with constraints that require minimum energy.

My ultimate goal is to become an expert in the field of Computer Science. Why Computer Science? It is dynamic and rapidly developing across a wide spectrum of our lives. For me the coherence and elegance of Computer Science in general and Modelling particularly give a sufficient reason to apply in our life. I am interested in computer simulations in solid state.

During my schooling Chemistry was my favourite classes. I actively took part in school Chemistry Olympiads and I was the 1st in district Chemistry Olympiads. Because of my success I took part in city level and was in team during 42 International Mendeleev Chemistry Olympiad. In my understanding chemistry is closely related with mathematics. I was always interested in computer simulations of chemical processes. That is why I entered Lomonosov Moscow State University the faculty of Applied Mathematics and Computer Science. My Bachelor Thesis was related with hash functions on Boolean variables and their properties. And during my bachelor studies I learned C/C++ languages and programmed different mathematical methods. Boolean variables are basics for image processing. That is why learning Modelling attracted me with the opportunity to enrich and apply my knowledge.

Now I am working as a senior software tester at Telecommunication Company. Nowadays Modelling is deployed in developing Process Controls, Telecommunications, etc. It is another specific reason of applying to the Program.

Invaluable experience that I will gain from the Erasmus Mundus Program will help me to find the templates of the daily life problems and do research on my own. The Program will give me unique opportunity to plunge into modern technologies and applications of Modelling in our life. After graduation and coming back I will be able to make a real contribution to the development and implementation of Molecular Modelling in Uzbekistan. This training will be precious career opportunity for me in the Computer Science.

I am confident that my educational background allows me to develop and improve my knowledge and skills. Uzbekistan is a developing country and the demand for the specialists with international background and experience is high. The Erasmus Mundus Master Program in Atomic Scale Modelling of Physical, Chemical and Biomolecular Systems will allow me to develop international projects and collaborations after coming back to Uzbekistan. Also I would like to share my culture and values and learn and benefit from experiences of others for the good of modern society.

Sincerely,

Dilafruz Amanova.