Professional scientific sessions for art, architecture and urban planning Thursday evenings
Held in: Conference hall of Herampey Consulting Engineers
Date: 11.01.2018
Title: The digital world and the architecture of tomorrow.
Speakers and panel members: Mr. E. Qaderi, Mr. V. Azizi and Mr. A. Movahedi.

The first speaker of the 95th session of Thursdays evenings was Mr. E. Qaderi who started saying that they would talk about the digital world and the architecture of tomorrow, presenting what has been done and which are the horizons for the next decades and century. To understand our perspectives he proposed to see the historical path that human evolution has experienced from about beginning of hits transformation and completion. Mr. Qaderi explained how our ancestors developed the necessary capacities that would permit their survival and the gradual and continuous diffusion from the African continent to other parts of the world.

Mr. Qaderi talked about how human kind realized its achievements step by step that took thousands of year, to bring us to the state and conditions that today we can experience. He explained how during the centuries men fought to reach goals and improve their quality and content. He talked about the ways of communication that initially were rude and limited(like the designs on the caves' walls, but step by step it has been transformed becoming the unbelievable ways of communication that today we experience.

Talking about the discoveries and achievements Mr. Qaderi explained how initially they were very slow and limited, meanwhile during the last 40 years the speed of discoveries and inventions have exceeded the limits of the imagination. Talking about the examples he reported about the railway, the invention of steam engines, electricity, the capacity to make aircrafts. All of these inventions created the conditions to reduce the distance, in time and geographical conception, permitting progress that we had never experienced before.

Coming to the architecture and how we run along during the centuries, Mr. Qaderi explained that until the fifties of the 20th century, in architecture the ways and tools to transfer the result of the imagination on the paper were very slow and limited, but with the advent of the computer, new and unimaginable possibilities come out and permit to the architects to imagine and realize concepts and structures that once would be considered impossible. He concluded his speech talking about automated and robotized systems that probably would limit the participation of men in a production process that for centuries belonged to them.

The second speaker was Mr. V. Azizi who talked about the process and its evolution regarding the transformation on architectural field related to the manners of presentation. The first revolutionary drawing system was presented in 1979 by Autodesk named Intracad, followed the first version of Auotcad in 1982. Mr. Azizi talked also about softwares like Naives, Ryno, Dyname, Glasshover, AERL and others. Mr. Azizi explained the characteristics and capabilities

of each software, showing how they changed the ways of drawing and presentation in the world of architecture. Talking about the Glasshover software Mr. Azizi explained that this program is operated in a visual mode, so the application of different icons the desired result and presentation is obtained for design and architectural purposes. He said that in his opinion the development of such softwares in the future will cause the disappearance of many related professions pushing ahead manmade tools and robots. Mr. Azizi believed that the mentioned future is not far from our days, when presenting the architectural necessities, the program offers the best solution on the matter.

The third speaker was Mr. Movahedi who talking about the practical aspects of his speech said the he wants to talk about the architectural construction process in the present era and in the future. He said that his speech would refer to three historical eras that characterized to human society and civilization's evolution path.

The era of husbandry and agricultural revolution, that has its specific characteristics. The first was the traditional way of construction, the second was the experiential architecture and the third its relationship with philosophical aspects. In this period the main decisive argument was the need to have a shelter, obtaining it through the use of existing resources and manpower.

The second era is during the industrial revolution in 18th century. The most important aspect of this era regarding the architecture is the advent of the steel and many manmade machineries in the construction field, that permit the realization of construction that before that facilities would be impossible to imagine. This the era that the introduction and development of industrial activities and products the request for goods experience a great increase, creating new fields and branches of production.

Mr. Movahedi explained that it is in this period that the human societies experience huge immigration flows from country sides to the cities, that cause the creation of big cities, with the following problems, that still affect our everyday life in most of the large cities in the world. It is from 18th century that the pollution of the environment reaches levels once considered unimaginable, that if continued can cause the extinction of human and other animal races in the world.

The third phase of the transformation is the IT revolution, that of course has different characteristics. The world of architecture is considerably influenced by the new achievements and inventions, that permit the introduction and use of new approaches and conceptions. On this regard many other tools, that are not directly architectural tools, like the quadcopters, help the designers and architects to have new assistances for the improve of their works.

After talking about the new possibilities and achievements Mr. Movahedi said that at the present the main problem remains the catastrophic conditions of the environment and problems that we have to face in the future, so the problem of the architectural-design field is to fine new approaches that will ensure our existence in the future. Presenting different manners and tools

that permit us to see realized the fruit of our imagination, Mr. Movahedi explained that these new achievements permit to see and correct the possible defects of the object that the designers have realized, before it is realized in a mass production chain. This can help also the architects that can see the material realization of the houses for example, that they design.

Concluding his speech Mr. Movahedi said that the IT revolution results must help us and to use this capacities, the ultimate tools and technologies must be part of our everyday professional life.