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SELCUK UNIVERSITY FACULTY OF ARCHITECTURE

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INTERNATIONAL CONGRESS OF ARCHI<mark>TECTURE-I</mark>

# ICONARCH - I ARCHITECTURE AND TECHNOLOGY INTERNATIONAL CONGRESS 15-17 NOVEMBER 2012 KONYA

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### AIM AND SCOPE

Architecture is to form livable spaces and products under the decisiveness of function, user and equipment characteristics in the direction of its own basic principles and human requirements. Act of architecture reached today from the day human being existed by changing with him. The architectural products formed within this act reflect the social, cultural and economical structure, life style and philosophy, civilization level, and the technological and cultural improvement level of their period. Social, technological economical improvements affect and change the architecture. Technology can be defined as whole of knowledge, ability and methods required to develop a new product by drawing inspiration from scientific studies and provide the service support. developments and transformations in technology bring along the concept of change. The scientific and technological improvements have an effective role on the development of the creativeness in architectural design. With the improvement of new materials and building systems it became possible to build high-rise buildings and span large openings by the means of more economical and lighter materials. The controllability of indoor environment comfort conditions (lighting, air conditioning, heating and cooling) is another dimension of the reflection of technological improvements on architecture.

Today, rapid developments in building systems and building materials and new information technologies affect architectural planning processes. This affection form is seen in:

- New building systems and material usage
- Design, drawing and presentation techniques.

On the other hand using sustainable and environmentalist technologies plays an important role in removing the environmental negations caused by the building sector. Technical approaches providing the ecology and technology balance in architecture make it possible to limit the fossil originated energy consumptions and use the renewable energy sources.

Moreover it became an obligation to use contemporary technologies in documentation studies (survey, restitution and restoration) of the architectural works belong to past periods. The plastic and semantic value of the architectural formation shaped by the usage of modern technologies is a subject to handle and debate in socio-cultural dimension.

Another topic to handle will be about the technology usage in municipality services and urban planning subjects. Today using technology in new municipality services is the basis of participating, clear and citizen focused management understanding and there is a necessity to transform the planning and service presentations into electronic environments by e-municipality applications.

In this congress in international level it is aimed to handle and debate these themes in a multidirectional way.

### MAIN THEMES

# 1- Innovative Building Techniques and Innovative Materials

- -Innovative materials
- -Innovative building techniques
- -The effect of innovative technologies on architectural design and formation.

# 2- Using Computer Software in Architectural and Urban Design

### **Processes**

- -Computer aided design: Parametric, interactive and script modeling, knowledge and communication technologies applications
- -Usage and importance of information technologies in architectural education
- -Simulation software: building performance analyses, static and thermodynamic simulation programs for architects and engineers, computational modeling
- -Building physics: indoor environment quality, artificial and natural lighting, heating-cooling, acoustics

# 3- New Technologies for Cultural Heritage

- -Using technology in Cultural Heritage Documentation and Conservation Practices
- -Digital Documentation, Interpretation and Presentation of Cultural Heritage
- -Contemporary techniques and technologies in documentation studies

-Information Systems Applied to Restoration, Documentation and Management of Architectural and Urban Heritage

# 4- Environmentalist Technologies and Architecture

- -Insulating techniques and materials
- -Smart buildings, automation systems in buildings
- -Energy efficient design approaches, buildings with low energy

# 5- Architecture and Technology Relationship in Social and Cultural Context

-Reflecting technology in architectural form and new identity values

# 6- Technology Usage in Municipality Services

- -City information systems -Interactive municipality applications
- -Technology usage in urban planning: Software and GIS database usage
- -Technology/City interaction in urban planning