

## 2<sup>nd</sup> International Conference on **Computer Graphics & Animation**

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### **Cognitive tools based on n-simplexes for decision-making and its justification in intelligent systems**

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Cognitive tools based on n-simplexes for decision-making and their justifications in intelligent systems are given. Intelligent systems based on the matrix way of data and knowledge representation, and on test methods of pattern recognitions, and on methods fuzzy and threshold logics, decision-making and its justification using graphical tools including cognitive tools are suggested. The idea of n-simplex application, and the theorem for decision-making, and its justification for intelligent systems were proposed by author in 1990 year. The mathematical visualization of the object under investigation mapping in n-simplex is given. Application of cognitive graphics tools based on development of the 3-simplex into sets of 2-simplexes for decision-making and its justification in intelligent systems is suggested. Three way of decomposition of 3-simplex into set of 2-simplex are given. All ways consist of four 2-simplexes. The suggested ways of visualization is invariance to problem areas, increase quality of decision-making and allow achieving better degree justification. In this year proposed 2-simplex prism as cognitive tools for decision-making and its justification in intelligent dynamic systems for different problem areas: Medicine, education, biology, physics, psychology, ecology, bio-ecology, etc. 2-simplex prism contains 2-simplex which disposed in base of prism and geometrical sections. Implementation intelligent subsystem of cognitive tools for visualization, decision-making and its justification based on construction 3-simplex and 2-simplex prism in Intelligent Instrumental Software (IIS) IMSLOG are reasonable. IIS IMSLOG proposed for construction of applied intelligent system for different problem and interdisciplinary areas. IIS IMSLOG was developed in the Laboratory of Intelligent Systems of Tomsk State University of Architecture and Building.

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### **Perception of undergraduate graphic design students on the role of the computer technology (CT) in enhancing design skills**

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The 21<sup>st</sup> century has come with rapid advancement of technology. This has brought many changes into various spheres of our lives. CT plays an important role in ensuring that the needs for these new changes are met. Consequently, many design educators are urged to integrate CT into their design studios. One of the purposes of this is for it to serve as a means of creating experiences for enhancing design skills. This paper, therefore, tries to find out the perception of graphic design graduates towards the use of CT in enhancing various graphic design skills in particular. The challenges in using CT for various graphic design skills in Nigeria are also examined. Four out of the 12 universities offering graphic designed as a major course of study have been randomly selected. Then, 140 graphic design students have also been randomly selected. A questionnaire was used. The data was analyzed using simple percentage and descriptive analysis. The findings have shown that the respondents believe that CT can be used to enhance design competence and develop more complex design skill. Some of the challenges for using it in Nigeria are problems of power/electricity failure and of connectivity, inadequate facilities.

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