THE HISTORY OF CODING THEORY

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It is not any doubts that many fundamental notions and concepts of the modern computers and modern information technology so as the Binary Coding and Binary Arithmetic, Cryptography Techniques take their origin in the Elementary Mathematics dating back almost 4000 years when the Babylonians created the Positional Principle of Number Presentation, but the Egyptian discovered the "Doubling Method" underlying the modern computer arithmetic and used a hieroglyphic code for inscriptions on tombs. It is clear that the creators of the Elementary Mathematics could not take in account any requirements and needs of the modern Information Technology so as a speed of information processing.

Perhaps, the most astonishing mathematical discovery of the ancient mathematics was the discovery of irrational numbers. As is well known a number of irrationals is infinite. However, some of them take a special place in the mathematics history, moreover in the history of material and spiritual culture.

The π-number and Euler's number e are two important irrational numbers. The π-number, which expresses the ratio of the circle length to its diameter, entered mathematics in the ancient period along with trigonometry, in particular spherical trigonometry considered as applied mathematical theory intended for calculation of the planet coordinates.

The "Golden Section" is one more fundamental irrational number. It entered the science in the Egyptian period along with the π-number. Hence, dating back from the ancient Egyptian period in the mathematical science of nature there came into being two trends of the science progress based on different ideas as to the Universe harmony, viz. the trend of the π-number, basing on the idea regarding to the spherical character of planets' orbits, and the trend of the golden section basing on the do-decahedron-icosahedronical idea about the Universe structure. The latter idea emerged from the analysis of cyclic processes within the Solar system and underlies the calendar systems and the time and geometric angle measurement systems based on the fundamental numerical parameters of the dodecahedron and icosahedron, i.e. on the numbers 12, 30, 60 and 360 generating by the golden section.

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