

## **THE RESULTS OF 40 YEARS DEVELOPMENT THE NEW OPTIMIZATION CODING THEORY**

The Space Research Institute of the Academy of Sciences has completed the long-term creation of the theory, algorithms and technologies of error correcting coding, which solved the main problem of the digital world - simple highly reliable coding, decoding, reading, restoration, transmission and storage of digital streams of binary and symbolic data in communication channels, in the storage and data processing systems in terms of the maximum permissible noise level. In the Optimization Theory (OT) of coding, they received the name of multi-threshold decoders (MTD), which was a complete simple technological solution of the Shannon problem posed 70 years ago.

Our results have been approved by the state and the world scientific and technical community: the Russian Government Prize in Science and Technology, the Gold Medal of the International Exhibition of Inventions, the European Union "Gold Medal For Exclusive Results" for special achievements in scientific activity. . Our main scientific portals [www.mtdbest.ru](http://www.mtdbest.ru) and [www.mtdbest.iki.rssi.ru](http://www.mtdbest.iki.rssi.ru) are read in over 90 countries of the world by over 100'000 engineers and scientists. The International Telecommunication Union (ITU), in its jubilee 2015, published our main book in English on effective and simple decoding "Optimization Coding Theory and Multithreshold Algorithms". Geneva, ITU, 2015". Over 30 of our patents protect our technical solutions in Russia and abroad. We are ahead of the current world level of algorithms and coding technologies for 10-15 years. We have simplified the great Viterbi algorithm (VA) and have patented it. Some of our results from the high technology sector are unknown Beyond Russia for more than 30 years.

Work with us! Be leaders with us! Noise immunity - it's easy!  
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