

## On blockchain technology and some applications

*Miodrag J. Mihaljević<sup>a</sup>*

<sup>a</sup>Mathematical Institute of the Serbian Academy of Sciences and Arts, Belgrade, Serbia  
*miodragm@turing.mi.sanu.ac.rs*

**Abstract:** The first part of the talk addresses the main issues of blockchain technology which is the underlying one for bitcoin and appears as a technology for a lot of applications. The second part of the talk is dedicated to certain applications of blockchain technology including the medical ones. In particular, application of blockchain based approach for the problem of medical data authenticity and integrity control is pointed out. This control appears as a top important one because the reliability of medical data appears as a key prerequisite for reliability of the data processing outcomes.

**Keywords:** Blockchain, data authenticity, data integrity, medical data reliable processing.



**Miodrag J. Mihaljević** is currently a Research Professor and the Project Leader with the Mathematical Institute, Serbian Academy of Sciences and Arts, Belgrade. His main research interests include cryptology and information security. He has published more than 100 research articles in the leading international journals and conference proceedings and over 200 publications in total. He is co-inventor of eight granted patents in Japan, U.S., and China. He has participated in over ten international research projects. Since 1997, he has been holding long-term visiting positions at the universities and research institutes in Japan, including The University of Tokyo, Sony Research Labs, the National Institute AIST, and Chuo University, Tokyo. Since 2014, he has been an Elected Member of the Academia Europaea. In 2013, he received the National Award of the Serbian Academy of Sciences and Arts for ten years achievements. He has been a Guest Editor of few journals. He is an Associate Editor of SN Computer Science (Springer). For more information, please visit <http://www.mi.sanu.ac.rs/cv/cvmihaljevic.htm>.