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**MODERN INFORMATIZATION PROBLEMS**  
**IN THE TECHNOLOGICAL AND**  
**TELECOMMUNICATION SYSTEMS**  
**ANALYSIS AND SYNTHESIS**  
**MIP-2024'AS**

**Proceedings of the XXIX-th**  
**International Open Science Conference**  
**(Yelm, WA, USA, January 2024)**



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Data gathered within collected papers may be useful to researchers and engineering technicians, whose work involves various aspects of modern society informatization, as well as to postgraduates and students studying subjects related to informatics and computer engineering.

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## Preface

Dear Colleagues!

Present proceedings were published to summarize the results of the XXIX International Open Conference "Modern informatization problems in the technological and telecommunication systems analysis and synthesis" (MIP-2024'AS). The conference was held through the joint efforts of Science Book Publishing House (USA), Baku State University (Azerbaijan), Vologda State University, Lipetsk State Technical University, Don State Technical University (Rostov-on-Don), and the Academy of Federal Security Guard Service of the Russian Federation (Orel), in November 2023– January 2024.

Proceedings contain information within the following areas: simulation of complex systems and engineering procedures, telecommunication systems and applications.

The conference was held to encourage exchange of experience between leading experts in utilization of information technologies in various spheres of science, engineering, and education. The conference followed the traditions established by its predecessors.

Representatives of leading research centers and educational institutions from some countries introduced the audience to the results of their research, which are available not only in this collected works, but on <http://www.sbook.ru/spi>.

Organizing Committee Chair,  
Editor in Chief  
Dr. Sci., Prof.

O.Ja. Kravets

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