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ПРОБЛЕМЫ УПРАВЛЕНИЯ

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In the conditions of a global information space, the special features of the formation of a social metasystem and its conversion into a new state are examined. The computer problems of the control paradigm globalization are discerned and investigated from the generic viewpoint. The axiomatics of the mathematically uniform field of computer information in the model of tree-type structures calculus is justified. An approach to the global control problems solution in the mathematically uniform field of computer information is formed.

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Lezhava G. K., Kamkamidze I. Sh., Verikishvili Z. I.

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The digital dynamic discrete-time systems are considered where admissible values of inputs and outputs are constrained by the fixed number of bit. The number of possible structures is evaluated and the computer simulation results are presented. The paper shows that proper asymptotic response may be belong to one three types: zero, constant, or periodic.

VARIABLE-STRUCTURE ADAPTIVE CONTROL SYSTEMS WITH PAIRED AND NONLINEARLY DEFORMABLE SWITCHING SURFACES

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A POST-STRUCTURAL ANALYSIS OF PROGRESS IN ENGINEERING

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The paper examines developments in engineering and their impact on society from a post-structural perspective, focusing on social impact, especially on labor, and on the environmental impact of technology, particularly in terms of global increases in consumption. Displacement of labor is discussed in terms of growing underemployment as machine enhanced productivity evolves from production of tangible goods to skilled and professional work. Ethical questions need to be re-framed to be relevant to reflect the evolution of work structures. Current developments create a positive feedback loop with adverse consequences for socio-political and environmental systems. Some analysts believe our current social system has already become highly unstable.

ON THE MODELS AND METHODS FOR COMPLEX SOCIO-ECONOMIC DYNAMIC SYSTEMS CONTROL.

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Utkin A. Yu., Lebedev V. G., Kostikova N. A., et al.

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Kuznetsov L. A., Chernykh M. V.

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Mikrin E. A., Knutov A. S.

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