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Concepts of a technological epoch and technological generation of electronic schemes are determined. Generations of an epoch of solid-state electronics are briefly considered. Definition of generation solid-state nanoelectronics, being boundary on a joint of two technological epoch is enterd: namely solid-state epoch and epoch nanoelectronics. It is shown, that Moore's law can form a basis for the forecast of dynamics of development of technology of semi-conductor manufacture not only for generation SGIS, basing on MOP-structures. Briefly considered major factors of influence on manufacturers of electronic shemes, including the market mechanism, which is a primary factor, determining dynamics of development of technology. Inevitability of change of technological epoch — transition from solid-state epoch to nanoelectronics epoch is shown.

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The rezults of investigations on micromechanics of self-propulsions in viscous fluids of flexible deformable microobjects by the excitation of pulsatile oscillations of their shape are presented. Axisymmetric slow creeping motions are considered.

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Modern trends into processor IP cores for system-on-a-chip are discussed. Typical properties both traditional processor analogs and special for SoCs are considered.

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Miniaturization in astronautics results in occurence of a new class of space systems as which basis space venicles of small and midget weight serve. In this connection there are various attempts of classification of space vehicles on their weight. In article criticism of existing approaches to such classification is submitted, and the system approach to classification is offered.

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