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Editorial

Welcome to *Systems*—A New Interdisciplinary Open Access Journal for Systems Science and Engineering

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Natural and human-made systems abound around us. Our solar system, the human body, the food chain, and ecosystems are some examples of natural systems. Some human-made systems are transportation systems, weapon systems, computer systems, software systems, satellite communications systems, ships, missile defense systems, health care systems, the internet, financial systems, and regional economies. Understanding of natural systems is essential to the survival of the human species, which is intertwined with the survival of other species on earth. Having the knowledge and ability to build human-made systems is critical to the employment of systems that effectively serve the needs of their users. To gain such understanding and to acquire such knowledge and ability, it is necessary that cutting-edge research in systems science, systems engineering, and systems-related fields continue. This open access journal aims to achieve quick and global dissemination of results of such research.

An interdisciplinary field of science, systems science studies complex systems in nature, society, and science. It crosses the boundaries of fields like, for example, complex systems, cybernetics, dynamical systems theory, systems theory, control theory, social systems theory, systems biology, systems ecology, systems psychology, chaos theory. This journal encourages submission of papers capturing research in these fields.

Systems engineering is a multidisciplinary field of engineering used in complex projects to produce trustworthy systems while satisfying schedule and budgetary constraints. The application of systems engineering reaches beyond engineering of physical systems and into engineering of socio-technical systems, which have both social and technical subsystems, such as financial systems, health care systems, energy systems, and organizational systems. This journal will be open to all who share this vision of broad applications of systems engineering. We encourage submission of papers that are theoretically sound and practically useful and advance extension or applications of non-systems engineering fields to systems engineering fields and *vice versa*.

This journal promotes interdisciplinary marriage of various fields studying the general properties of systems and interdisciplinary studies that integrate knowledge and theoretical frameworks of various fields such as biology, mathematics, medicine, computer science, and statistical mechanics, to name a few. Aspiring to provide a venue that supports a constructive exchange of ideas across different fields, this journal is designed to appeal to a diverse audience of research scientists in academia and industry as well as practitioners and developers in all areas related to systems—systems engineers, engineers from all traditional disciplines, systems theorists, scientists, social scientists, mathematicians, economists, biologists, *etc*.

The Editors and Editorial Board will maintain the highest standards of peer review. Accepted articles will be immediately published online. An important aspect of *Systems* is that we aim to achieve a short review cycle. We will also publish research results in as much detail as is necessary. We welcome your proposals for special issues of the journal on selected topics of interest and suggestions for appropriate guest editors. We welcome your feedback, suggestions, or ideas on how to make this journal a success.

I look forward to making *Systems* a leading venue for publication in systems science, systems engineering, and interdisciplinary system-related fields.