

Call for Contributions:
The International Journal of Intelligent Control and Systems (IJICS)
Special Issue on Empirical Approaches to Software Systems Engineering

Future software systems will exhibit a high degree of flexibility, particularly when they are used in the design and development of our next generation systems with complex embedded software elements for data acquisition, coordination and monitoring. The shifting boundaries between hardware and software have led to such software-intensive systems that have to assemble, integrate and analyze information from disparate sources in a timely, accurate and reliable manner. While these software systems may be designed and manufactured by several types of specialized vendors, each supplying a piece of the complex system; they should seamlessly interface with other system entities. Hence it may be difficult for one individual or group to be fully cognizant of the intricacies in designing and building such complex software systems. The constantly evolving software technologies and the continually increasing size and complexity of software products present a daunting challenge for practitioners and researchers. These technologies should be modeled, verified and validated before they can be widely applied. The software products and software process should be monitored in order to achieve desired levels of quality in the software system. Issues such as device design, fabrication, development and programming in the small for dealing with issues arising from these rapid advances in embedded computing (net-integrated and data intensive computing) have become as critical as investigating issues of programming in the large for supporting distributed, business and service computing needs (net-centric computing). In recent years, empirical study has drawn much attention in software engineering. It has become a crucial approach in understanding software systems (software products, processes, and resources) and evaluating new techniques and methods. This special issue is to highlight this emerging trend in software design, development and deployment.

We invite both theoretical and applicative papers for a special issue on "Empirical Approaches to Software Systems". This special issue will focus on the current research trends in the application of empirical approach on software design, development and maintenance. Of particular interest to the special track including but not limited to issues of modeling and analysis, design, integration, maintenance, scalability, stability, software cost and effort estimation, verification and validation software quality and reliability estimation, architectures and artifacts with empirical validations.

Submission of papers: Prospective authors may submit their manuscripts to the guest editors given below with a statement that the submission is intended for this special issue. Only MS Word documents or PDF files via email submission will be accepted. (Please follow the regular guidelines of IJICS, <http://www.ijics.org>).

Guest Editors:

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Important Dates:

Final date for submission of manuscripts: Feb 15, 2009
Notification of acceptance/rejection: May 31, 2009
Submission of accepted papers: July 15 2009