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**Part C – Applications and Reviews**

Special Issue on  
**Engineering Autonomic Systems**

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The IEEE Transactions on Systems, Man and Cybernetics publishes overview, tutorial, and application papers concerning all areas of interest to the SMC Society: systems engineering, human factors and human machine systems, and cybernetics and computational intelligence.

The rapidly growing complexity of integrating and managing computer-based systems threatens to overwhelm the capabilities of even the most expert systems and software developers and administrators while at the same time increasingly this complexity is threatening the dependability of systems.

Autonomic Systems is emerging as a significant new strategic and holistic approach to the design of computer-based systems. Its goal is the production of systems that are self-managing through key aspects such as self-configuring, self-healing, self-protecting and self-optimizing, in effect bringing pre-emptive and proactive approaches to all areas of a computer-based system.

Major software and system vendors such as IBM (Autonomic Computing), HP (Adaptive Infrastructure), Sun (N1), CISCO (Adaptive Network Care) and Microsoft (Dynamic Systems Initiative) are concluding that the only viable long-term solution is to create computer systems that manage themselves.

The Autonomic and self-managing initiatives, through *selfware* offer the promise of achieving dependable and secure systems. To meet this challenge, Autonomic Systems can benefit from the Systems, Man and Cybernetics research communities together with cross-pollination with other fields.

The topics of interest include but are not limited to: architectures, frameworks, components, tools, environments, languages, applications and lessons for Autonomic and Self-Managing Systems development from Systems, Man and Cybernetics perspective.

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