The Fifth International Workshop on Software Cybernetics: 
Control Approaches to Software Engineering (IWSC 2008)

Foreword

Software technology and software systems greatly impact technological products, economic activities, defense, scientific research, and social life. The complexity of software continues to grow. Failures of software projects and software systems may incur high financial costs and even human life. There is no doubt that various software development processes and the complicated behavior of software systems must be kept functional and even evolved in the context of a changing environment. Conceptually, this is precisely the purpose of control theory, and hence the integration of software and control engineering can be seen as the first stage in the development of software cybernetics.

This year the focus of the workshop is on “Control Approaches for Decision Support in Software Engineering.” A control theoretic approach in an SE environment leads to concrete/quantitative suggestions to the developers and managers on how to proceed further to ensure that goals are met. It might also, though not necessarily, lead to a change in goals especially when there exists no feasible solution. However, in most cases, due to the multidimensionality of the problem, a control theoretic approach will likely lead to multiple feasible solutions, when at least one exists. This multiplicity of solutions provides choices to the management in decision making. Hence, a control theoretic approach when applied in an SE environment, aids in decision making.

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