

## Proposal of Design Method in the Semi-Acausal System Model

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**Abstract :** This study is used as a definition method to the value and function in manufacturing sector. In concurrence of discussion about present condition of modeling method, until now definition of 1D-CAE is ambiguity and not conceptual. Across all the physics fields, those methods are defined with the formulation of differential algebraic equation which only applied time derivation and simulation. At the same time, we propose semi-acausal modeling concept and differential algebraic equation method as a newly modeling method which the efficiency has been verified through the comparison of numerical analysis result between the semi-acausal modeling calculation and FEM theory calculation.

**Keywords :** system model, physical models, empirical models, conservation law, differential algebraic equation, object-oriented

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