

An Ontology Model for Systems Engineering Derived from ISO/IEC/IEEE 15288: 2015: Systems and Software Engineering - System Life Cycle Processes

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Abstract : ISO/IEC/IEEE 15288: 2015, Systems and Software Engineering - System Life Cycle Processes is an international standard that provides generic top-level process descriptions to support systems engineering (SE). However, the processes defined in the standard needs improvement to lift integrity and consistency. The goal of this research is to explore the way by building an ontology model for the SE standard to manage the knowledge of SE. The ontology model gives a whole picture of the SE knowledge domain by building connections between SE concepts. Moreover, it creates a hierarchical classification of the concepts to fulfil different requirements of displaying and analysing SE knowledge.

Keywords : knowledge management, model-based systems engineering, ontology modelling, systems engineering ontology

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