

CHAPTER 27

MATHEMATICAL SCIENCES COMPUTER SCIENCE

Doctoral Theses

253. SUDEEP
Temporal Extension to Ontologies for Semantic Web Enabled Systems.
Supervisor : Dr. Punam Bedi
Th 15596

Abstract

In the work, an approach “Designing Ontologies from Taxonomies” is devised to build ontologies easily and quickly for any given domain of knowledge. The approach is tested using Protege ontology editor and Soil Taxonomy to build Soil Ontology. A case study to identify the diseases and pests in different crops was undertaken to validate the framework.

Contents

1. Introduction. 2. Building ontologies for semantic web applications. 3. Ontology based expert system. 4. Temporal extension to ontologies. 5. SPARQL - Temporal query language. 6. OWL - T based semantic web systems. 7. Conclusion. Annexures and Bibliography.

254. VIBHA KUMARI
Refining Quality Requirements to Match Users' Expectations.
Supervisor : Dr. Punam Bedi
Th 15595

Abstract

Defines quality of Multi-agent System (MAS) through six dimensions: technical, visualization, domain, social, dynamic, and supportive excellence that are addressed in terms of factors and factors are defined in terms of criteria. An integrated specification of

quality requirements that satisfy all stakeholders and support quality engineer in ascertaining the desired quality requirements is presented. Refines quality requirements of a system to match users' expectations so that the final system built using refined requirements results in users' satisfaction. Refining the quality requirements from users' expectations at requirement stage assists the practitioners in developing a system that reflects users' perception as well as their satisfaction.

Contents

1. Introduction. 2. Multi-dimensional model of software quality. 3. Influence of cooperation on quality. 4. Estimating quality using Fuzzy cognitive maps. 5. Establishing trust from quality. 6. Refining quality requirements from users' expectations. 7. Conclusions. Bibliography and appendixes.