Theme II. Description

Topic
Ontology Merging based Concept Similarity

Methods	**Research area**
Optimization Programming	Semantic Web and Data Ming

Description
Background Semantic Web is the most active area, which mostly benefits from the Ontology and AI technology. However, there is lacking of a real formal domain Ontology and to build such Ontology is tedious or impossible task. Currently, heterogeneous Ontologies developed by different systems are using. Therefore, several important challenges come up, e.g., Ontology building, merging, and mapping. Especially, how to merge two ontologies in an application domain is significant and still a great challenge. **Task** Our group has already build prototype (named WSAO), one part of which is called, OntoMerge, an eclipse plug-in for merging two ontologies. It imports two different ontologies in WSMX/ format and merges them as one; which also calculate the ontological concept similarity. What we need to do is to update it as web-based tool and enrich it with some other new functions, e.g., importing Ontologies in OWLXML/RDF format and building an ontology evaluation platform.

Prerequisites	**Desirable priories knowledge**
Programming skills in Java Eclipse, Web-based programming;	Semantic Web

Contacts	
Prof. Dr.Dr. Wolfgang Halang,	wolfgang.halang@FernUni-Hagen.de
Prof. Dr. Herwig Unger,	herwig.unger@FernUni-Hagen.de
Dr. Xia Wang,	xia.wang@FernUni-Hagen.de