Seminar on Description Logic
Spring Semester 2007
Instructor: Teodor Rus
TTH 2:30pm-3:45pm, McBride 132

Description Logic (DL) is a branch of mathematical logic that is currently used as foundation for knowledge representation and domain ontology development tools. The software advances spawned by recent successes of DL use for application software development, in various application domains, in particular for semantic-web development tools, brought the description logic at the forefront of the research in computer science. The goal of this seminar is to expose the students attending it to the basic concepts and tools of DL as well as to some of its applications. The expectation is that at the end of semester each student attending the seminar will be able to use DL as a specification mechanism in his/her area of software development interest.

Topics to be discussed include, but are not limited to:

1. Basic Description Logics.
2. World description using DL.
3. Reasoning Algorithms using DL.
4. Using DL for Software Tool Development. The tools to be discussed here are:
   (a) Web Ontology Language (OWL)
   (b) Resource Description Framework, RDF
   (c) Application Domain Ontology Development using OWL
   (d) Web Service Description Language
   (e) Ontology Support for Problem Solving Process
5. Other applications determined by student interests.


Note: This seminar is open for graduate and undergraduate students. However, undergraduates need the signature of the instructor in order to register for this class.