

Knowledge Engineering Group
 Dept. of Information & Knowledge Engineering
 (Czech: KIZI – Katedra informačního a znalostního inženýrství)
 University of Economics, Prague
 W.Churchill Sq. 4, Praha 3, CZ-130 67
 phone: +420 224095495, 224095427 (secr.)
<http://keg.vse.cz>



Main research areas of KEG:

- Knowledge Discovery from Databases
- Web Content & Structure & Usage Mining, Web Search Technology
- Ontology Design & Learning & Mapping
- RDF technology & Topic Maps
- Multimedia Semantics
- Inference in KB'd Systems
- Soft Computing and Fuzziness
- Natural Language Processing
- Web Engineering & XML Technologies





General information:

- KEG has been formed as informal group in 2002. Currently it overroofs the majority of the Department's research activities in knowledge technologies
- In 2008 KEG is mainly getting funding from 3 EU projects and two large national projects (one by Czech Science Foundation and one by the Ministry of Education)
- KEG also undertakes joint activities with Czech SMEs in the areas of data mining and semantic annotation
- KEG is involved in the organisation of numerous international events in the semantic technologies area: it for example hosted the EKAW'06 conference
- KEG staff are active in W3C (four WG/XGs) and in STI International

Permanent research and teaching staff:

Prof. Petr Berka, Dr. Jiří Ivánek, Dr. Petr Jirků,
 Dr. Jan Rauch, Dr. Vilém Sklenák (Head of KIZI),
 Dr. Petr Strossa, Dr. Vojtěch Svátek (KEG contact person),
 Dr. Miroslav Vacura

Some home-grown software solutions

| | |
|---|--|
|  | <p>LISp-Miner is a complex toolbox for knowledge discovery in large databases, in the form of richly structured association rules, decision rules etc. Inspired by GUHA method. Highly optimised performance, experience on medical, financial, engineering, social science and other data.</p> |
|  | <p>NEST is a rule-based and CBR expert system shell embracing multiple methods of uncertainty processing and reasoning algorithms. Works in stand-alone, client-server and web-service mode. Tested in medical diagnostics and in multimedia semantic label fusion.</p> |
|  | <p>Relaxed is a validator of HTML and compound XML documents, based on Relax NG, Schematron patterns and NVDL. Usable e.g. as Web Accessibility assessment tool.</p> |
|  | <p>Ex is a tool for web information extraction based on extraction ontologies. Also includes a wrapper component and possibility to call inductive learning components.</p> |

Project-funded research staff:

Dr. Martin Kavalec
 Tomáš Kliegr
 Miroslav Kolínský
 Jirka Kosek
 Martin Labský
 Marek Nekvasil
 Jan Nemrava
 Josef Petrák
 Dr. Pavel Praks
 Dušan Rak
 Martin Ralbovský
 Marek Růžička
 Marek Schmidt
 Dr. Pavel Smrž
 Dr. Milan Šimůnek
 Ondřej Šváb-Zamazal
 Jan Zemánek

Running EU projects with funded partnership

K-Space: Knowledge Space of Semantic Inference for Automatic Annotation and Retrieval of Multimedia Content (NoE, 2006-2008)

KP-Lab: Knowledge Practices Laboratory (IP, 2006-2010)

MedIEQ: Quality Labeling of Medical Web Content using Multilingual Information Extraction (STREP, 2006-2008)

Past EU-funded projects

M-CAST: Multilingual Content Aggregation System based on TRUST Search Engine (SSA, 2005-2006)

TARSKI: Theory and Applications of Relational Structures as Knowledge Instruments (COST, 2001-2005)

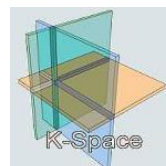
MiningMart: Enabling End-User Datawarehouse Mining (2000-2002)

Solomon European Network: Data Mining and Decision Support for Business Competitiveness (2000-2002)

MGT: Medical Guideline Technology: Representing, Interpreting and Sharing Cost-effective Standards (1998-2001)

Non-funded membership (in network projects)

KDubiq (2006-2010), Knowledge Web (2004-2007), KDnet (2001-2005), OntoWeb (2001-2004), EUNITE (2001-2004), VISION (2002-2003), MLNet II (1999-2000), MLNet I (1994-1997)



Subjects interested in collaboration should send an email to svatek@vse.cz