

JOSHI CENTER ROOM 376
RESEARCH LABORATORY



Computer Science and Engineering Department

Services Research Lab

Faculty and Graduate Student Research Laboratory

Kno.e.sis Center (<http://knoesis.org>)

Knowledge Enabled Services and Information Science



The Services Research Lab (SRL) investigates modeling, representation, integration and execution of Service Oriented Architecture (SOA) based systems. Widely acknowledged as thought leaders in the areas of Semantic Web Services, SRL plays a very active role in standardization (SAWSDL, SA-REST) and adoption (via open source tooling) of SWS technologies.

Dynamic and Adaptive Web Processes

Since 2003, we have been working on rich semantic modeling of service descriptions (WSDL-S, SAWSDL) that would enable service oriented systems to be configured dynamically on the fly. Further, our research has addressed fundamental issues related to XML interoperability and autonomic Web processes. Our core contributions include

- SAWSDL for creating rich semantic service descriptions.
- Systematic approach to data mediation.
- Middleware for dynamic configuration of SOA based systems.
- Optimal run time adaptation of SOA based workflows (Web processes)

Web 2.0 and Services

In the context of lightweight RESTful services, we focus on description (SAREST), searching and ranking (APIHut), integration (Smart Mashups or SMashups), deployment and delivery. This has led us to explore new and interesting areas of research including Domain Specific Languages (DSLs), pervasive and ubiquitous computing. Our mobile semantic computing research is developing ways to quickly develop Smashups and applications that can run on multiple platforms by adapting the latest in services, social computing and semantic computing.