MTA SZTAKI

Department of Distributed Systems

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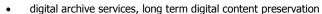Phone:
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INTRODUCTION

Established in 1994, Department of Distributed Systems at MTA SZTAKI (MTA SZTAKI DSD) performs basic and exploratory research in the fields of distributed network systems, cloud systems, World Wide Web technology-based network services and applications, groupware, CSCW, digital libraries and archives, mobile applications.

MAIN R&D TOPICS

- digital archive services, long term digital content preservation
- Semantic Web, web service composition and discovery, Linked Open Data
- research of cloud-based systems, federation, SLA and scaling, QoS
- research in management of context awareness
- paradigmatic and architectural questions of collaborative services
- pervasive systems, architecture and service adaptation research
- mobile P2P systems, emergent interoperability research

In these fields, MTA SZTAKI DSD develops prototype systems, applications, network services and complex solutions based on new exploratory research results. Research and development are performed mostly via international, EU sponsored projects, but the Department also provides solutions through industrial assignments to complex problems that present technical and scientific challenges.

MTA SZTAKI DSD specializes in developing and operating open networked public services: online dictionaries, plagiarism-search service, search tool for cultural assets, online voting and similar services related to the field of e-Science, as to make the knowledge created/acquired and the results of the R&D activity carried out in domestic and international projects directly usable and adaptable for the community. SZTAKI Dictionary, the most visited online dictionary service in Hungary and KOPI, the unique plagiarism-search tool are the outstanding examples of these services offered.

International scientific partnerships

MTA SZTAKI DSD maintains extensive international partnerships predominantly in the research fields dedicated to digital library systems and web services.

MTA SZTAKI DSD develops virtual tools, middleware software (cloud- and P2P-based systems), semantic web architectures, platforms and applications, creating individually tailored solutions while focusing both on content awareness and the potential of dynamic composition of such services. DSD performs research and development in flexible business models, enhancing the collaboration among enterprises by ensuring the IT (web) background for platform-independent access, information and content sharing, forwarding and storage; and by defining the tasks of collaboration as well as the forms of task execution and workflows.

MAIN INTERNATIONAL REFERENCES

- RICOH
- ATOS Origin
- EADS Astrium Transportation
- INRIA
- NUANCE
- Telefonica
- PricewaterhouseCoopers
- HLRS
- Profium
- Fraunhofer Gesellschaft
- Kapsch Aktiengesellschaft

MAIN DOMESTIC REFERENCES

- Magyar Telekom
- Origo
- Sanoma
- Prime Minister's Office
- FreeSoft
- P92
- EGIS
- NETvisor

MAJOR PROJECTS

- Symbio-TIC: Symbiotic Human-Robot Collaborative Assembly in the automotive industry: Technologies, Innovations and Competitiveness
- COURAGE: Preservation of the Cultural Heritage of Dissent in the Former Socialist Countries
- SHARE-PSI 2.0: Shared Standards for Publishing Open Data and Public Sector Information
- ChaosFire: Fed4Fire Innovative Experiment for Measuring Effectiveness of Sensor Data Collection and Distribution in an Opportunistic Network Platform
- Tolmácskesztyű: InterpreterGlove
- BonFIRE: Building service testbeds on FIRE
- S-CUBE: European Network of Excellence in Software Services and Systems
- CHAOSTER: Context-aware adaptive collaboration platform for crisis/chaos management based on the concept of emergent interoperability
- MunkaPad: Integrated eScience platform based on LOD and LOS
- DONAU: RICOH-SZTAKI collaboration in research
- BREIN: Business objective driven reliable and intelligent GRID