



DESIGNING THE DIGITAL TRANSFORMATION

The Karlsruhe Service Summit (KSS) Research Workshop is hosted by Karlsruhe Service Research Institute (KSRI) to provide a service innovation hub for researchers and practitioners in the fields of business engineering, economics, computer science, information systems, operations research, logistics, and social sciences.

KSS 2017
Karlsruhe Service Summit
Research Workshop
21st + 22nd September 2017

The objective of the third KSS Research Workshop is to foster academic and interdisciplinary discourse and networking amongst different generations of researchers from the field of service science. In order to achieve this objective, stimulation of academic scholarship, discussions of ideas as well as dialogue among students and researchers from different countries, disciplines, and seniority is intended.

CALL FOR SHORT PAPER SUBMISSION

For KSRI's third Service Summit Research Workshop on "Designing the Digital Transformation", we invite submissions of theoretical and/or empirical research dealing with one or several of the subsequent three workshop's pillars.

We especially encourage submissions with an interdisciplinary perspective. All submitted short papers will be blind peer reviewed by at least two members of the program committee. The selected submissions will be published in workshop proceedings of the KSS by September 2017.

Additionally, we will have paper development workshops for eligible papers. Members of editorial boards of various relevant journals have confirmed their participation – like "Service Science", "Operations Research for Health Care", and "Transportation Research Part D".

More information will be available online:
ksri.link/kss2017

SUBMISSION PROCESS

2017-06-20	Paper submission - final extension
2017-08-01	Notification of acceptance
2017-09-01	Final paper submission and authors' registration
2017-09-21/22	Workshop date

We expect short papers up to 4 pages in the template provided online.

Please submit via easyChair:

www.easychair.org/conferences/?conf=kss2017

ENERGY AND MOBILITY SERVICES

The energy sector continues to undergo substantial structural changes. Currently, the expanding usage of renewable energy sources, the decentralization of energy supply and the market penetration of electric vehicles (EV) as well as stationary storages and smart devices have a significant impact on the future development of services in energy and mobility systems.

In the energy sector, for instance, the share of self-generated electricity in the overall electricity demand steadily increases. Consequently, utilities are transforming their business models from pure delivery of energy to tangible (energy) service providers. While services for the energy sector were traditionally limited to B2B services (e.g., ancillary services), the recent increase in “prosumption” shows that the need for a set of tangible, non-technical services in the energy retail market, taking consumer engagement into consideration, is no longer an issue of future services, but current reality. Moreover, the increasing volatility and uncertainty of power supply lead to a rising demand for flexibility, which cannot be provided by the conventional supply side alone. Services focusing on the demand side such as appropriate incentives (e.g. electricity tariffs), market designs, and service level concepts need to be developed and introduced. This requires new services in electricity retail markets, innovative marketing and comprehensive acceptance research and the investigation of future business models.

Consequently, the concept of service quality needs to be adapted to these developments and appropriate service level indicators need to be developed. EVs might be a part of this concept.

HEALTH CARE SERVICES

Demographic changes cause higher patient demands alongside severe cost pressure and increasing quality requirements. Therefore, more efficient health care services and logistics are desirable. Even though underlying planning problems in the area of Operations Research resemble the ones from other service or manufacturing industries health care services are especially challenging, because patients need different care than, for example, parts of cars. In addition, particularly interdisciplinary approaches are necessary for research on and improvement of health care services.

While the focus of this track is on the analysis and

Furthermore, mobility and other services are required in order to simplify the market uptake and user acceptance of EV. Finally, in the current trend to ‘access society’, multi-modal mobility becomes attractive due to fast increasing data availability and therefore declining access costs, fostered by smart mobility services. Multi-modal trips are less costly, better for our health and have a lower environmental impact.

This track therefore seeks contributions enhancing the understanding of the future role of services in energy economics and (e-)mobility. Moreover, presentations and papers addressing the appropriate use of decision support methods in different phases of service innovation and marketing in these domains are welcome. Relevant topics include, but are not limited to:

- *Service innovation, marketing and evaluation in energy economics and e-mobility*
- *Service level engineering in electricity retail markets*
- *Services for mobility 2.0*
- *The role of smart grids and smart markets to foster demand-side flexibility*
- *User acceptance analysis of new tariffs (e.g. curtailable load or dynamic pricing) or new technologies (e.g. e-mobility)*
- *Design and evaluation of business models in energy and mobility markets*

optimization of health care services, it also considers the structure and design of the underlying service networks. Papers that address the challenge of considering multiple objectives for health care planning are especially welcome.

Relevant topics include, but are not limited to:

- *Appointment planning*
- *Emergency medical services*
- *Home health care*
- *Hospital logistics*
- *Locating medical facilities*
- *Long-term care*

SMART SERVICES FOR IOT

Market competitiveness as well as new technology developments raise the need for constantly reshaping and improving the organizational, controlling and manufacturing aspects of the lifecycle of products and services. Production industries are increasingly characterized by individualized customer needs shaping not only the final result but also the actual design, development, manufacturing and delivery process steps, as well as the associated business models. Furthermore, flexibility, customization and the need to be able to support real-time scenarios are crucial in order to be able to keep up to date with current developments. These requirements aim to be addressed by Industry 4.0 – a vision of tomorrow's manufacturing, where in intelligent factories, machines and products communicate with each other, cooperatively driving production.

Key technological pillars for realizing Industry 4.0 are cyber-physical systems, the Internet of Things (IoT) and the Internet of Services, which together facilitate the vision of the Smart Factories. Cyber-physical systems represent, control and monitor the actual physical processes, by creating a virtual copy of the physical world and making decentralized autonomous decisions. Facilitated by the Internet of Things, which refers to a worldwide network of interconnected heterogeneous objects that are uniquely addressable and are based on standard communication protocols, these intelligent autonomous systems are able to communicate with each other and with humans in real time. Furthermore, via the Internet of Services, both internal and cross-organizational services are offered and utilized by participants of the value chain. Finally, in the current era of digitalization, such scenarios are unthinkable without the utilization of Big Data technologies, where large data sets provided by the interconnected objects can be stored, managed and analyzed with scalable methods. Naturally, the employment of these technologies is associated with the need to evolve and develop new adequate business models.



This track aims on discussing advantages of particular technologies, value creation and business models for platform providers, application developers, end-users, large and small organizations, and manufacturers in the context of product and service offering. Relevant topics or case studies include, but are not limited to:

- *Self-organizing and autonomous systems*
- *Design and development of Industry 4.0 platforms*
- *Supporting solutions for customized products*
- *Monitoring and smart data analytics for Industry 4.0*
- *Flexible and scalable data management and integration*
- *Real-time data integration and processing*
- *Sensor data processing and integration*
- *Semantic web technologies for Industry 4.0 and IoT*
- *Marketplaces for offering IoT-based applications and services*
- *Data-centric business models*
- *Application and use case deployment success stories*

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