VLBA - Business Informatics and Sustainability

The research activities in the VLBA department under lead of Prof. Dr.-Ing. Jorge Marx Gómez focus on ICT-based sustainability. Especially the fields of environmental management information systems and sustainability reporting are not only represented in research but also in the range of courses. Moreover, VLBA department carries out several joint projects with different companies and research institutions.

eCoInnovateIT

The ratio between information and communication technologies (ICT), human behavior and the environment underwent a significant change over the past decades. Emissions into air, water and soil, the consumption of valuable metals and the increasing primary energy consumption are part of the ecological and economic effects of our "digital life". Considering these problems, the question of how to achieve a sustainable consumption of ICT arises. So far, the scientific community almost exclusively deals with the sensitization and consulting of the actors. However, in this research project, we chose an open innovation approach in order to actively integrate all parties involved in the design of a sustainable ICT consumption, while respecting social, economic and ecological aspects and by using efficient, sufficient and consistent strategies. The aim is to break down existing barriers and to promote innovation through inclusion of all stakeholders, whereby science takes on the role of the initiator and coordinator of societal change.

TEMPRO

Recent studies have shown that around 50.000 data centers are causing 2% (12 TWh) of the whole power consumption in Germany. Despite the numerous efforts made to improve energy efficiency, according to the forecast for 2020 expected total power consumption is going to be around 14 TWh. Because of this, a grey energy (indirect energy, which is used for production, transport, storage, sale, and disposal) needs to be considered for an overall energy management optimization. The Carl von Ossietzky University of Oldenburg is addressing this problem in the research project called TEMPRO (Total Energy Management for Professional Data Centers).

NEMo
Mobilität. Von uns, für uns.

The German acronym NEMo stands for "Sustainable satisfaction of mobility demands in rural regions". Due to the demographic change, it is getting more and more difficult for municipalities to offer a basic set of public transport services, such as bus and train. Simultaneously, the mobility demand in rural regions is increasing because of the agglomeration of health care and shopping infrastructure to nearby cities.
Based on this problem statement the research project NEMo is developing sustainable and innovative mobility offers and supporting business models especially for rural regions. Information and communication technology plays an important role as enabler for the participation of the citizens. NEMo is funded by the VW foundation with € 1,53 M. and has a duration of 3 years. Funded are 8 doctoral students and one postdoctoral position. NEMo is an inter- and transdisciplinary project headed by Prof. Dr.-Ing. Jorge Marx Gómez. Overall 8 professorships are participating in the project: Frank Köster, Jürgen Taeger, Jürgen Sauer, Andreas Winter from Oldenburg, Anna Henkel and Jantje Halberstadt from Lüneburg and David Woisetschläger from Brunswick. Furthermore, many partners from industry and public are participating in the project. In a close dialogue with the citizens of the test regions, the solutions will be tested and evaluated.

Prof. Dr.-Ing. Jorge Marx Gómez

- Dr.-Ing. Andreas Solsbach
- M. Sc. Jad Asswad
- Dipl.-Oec. Benjamin Dietrich
- Dipl.-Inf. Volkan Gizli
- M. Sc. Georg Hake
- Dipl.-Inf. Barbara Rapp
- M. Sc. Alexander Sandau

Areas of application

➢ Environmental Management Information Systems
➢ Business Intelligence
➢ Sustainability Reporting

Regular courses

Business Intelligence I + II, BUIS I+II, ERP-Technology, Mobile Commerce, IT-Controlling, Customizing, E-Business, Business informatics II, and project groups

eCoInnovateIT - http://ecoinnovateit.de/

TEMPRO - http://tempro.uni-oldenburg.de/

NEMo - https://www.nemo-mobilitaet.de/

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VolkswagenStiftung

http://vlba.wi-ol.de/
http://www.uni-oldenburg.de/centos/