inf659 - Environmental Management Information Systems II

Module label: Environmental Management Information Systems II
Module code: inf659
Credit points: 6.0 KP
Workload: 180 h

Used in course of study:
- Master's Programme Business Informatics > Akzentsetzungsmodule Bereich Wirtschaftsinformatik
- Master's Programme Computing Science > Angewandte Informatik
- Master's Programme Environmental Modelling > Mastermodule
- Master's Programme Sustainability Economics and Management > Additional Modules

Contact person:

Module responsibility
- Jorge Marx Gomez
- Die im Modul Lehrenden

Authorized examiners
- Jorge Marx Gomez
- Die im Modul Lehrenden

Entry requirements:

Skills to be acquired in this module:
This course aims at examining emerging research questions in the field of corporate environmental management information systems (CEMIS). After finishing this course, the students will have extensive knowledge regarding Business Environmental Informatics. In addition, they will be aware of recent research topics and challenges as well as relevant software solutions and practical projects.

Professional competence
The students:

- will obtain extensive knowledge in the field of CEMIS
- know emerging research questions and challenges as well as software solutions and projects

Methodological competence
The students:

- find their own solutions or apply already existing approaches to new and unsolved questions in the field of CEMIS
- capture required data, analyse it and present it to their team or the whole group

Social competence
The students:

- are supposed to work in teams and therefore have to identify working packages and have to take on responsibility for the jobs assigned to them
- present and discuss their own results with the team and the other members of the course

Self-competence
The students:

- learn about their own limitations and learn to accept criticism in order to strengthen their own abilities

Module contents:
A strong social pressure forces enterprises to question their current way of implementing their business and to include different aspects of sustainability into their strategies and operational actions. Such a rethinking of one’s business is supported by corporate environmental management information systems. Such systems aim at optimising the energy and ressource usage, emission and waste minimisation as well as production integrated environmental protection. Of course they support the fulfillment of legal requirements such as waste management or hazardous material handling.

The module will cover:
recent and emerging research questions and topics related to the field of CEMIS as well as Business Environmental Informatics.

discussion and hands-on experience of standard software systems and newly established solutions.

applying the knowledge obtained to the definition of new as well as on solving new case studies.

Reader’s advisory

Marx Gómez, Jorge, Scholtz, Brenda (Eds.) (2016): Information Technology in Environmental Engineering. Springer International Publishing


Hershey (PA), London


Rautenstrauch, C. (1999), Betriebliche Umweltinformationssysteme, Springer-Verlag

Links

http://www.wi-ol.de

Languages of instruction

German, English

Duration (semesters)

1 Semester

Module frequency

jährlich

Module capacity

unlimited

Reference text

Type and language of program will be announced prior to the beginning of the course

Modulart

je nach Studiengang Pflicht oder Wahlpflicht

Lern-/Lehrform / Type of program

V (2 SWS), Ü (2 SWS) or SE

announced at the beginning of the lecture period (2SWS V + 2 SWS Ü oder block seminar)

Vorkenntnisse / Previous knowledge

Examination

Time of examination

Type of examination

Semenar paper and presentation or term paper

Final exam of module

Usually 2 weeks after the end of the lecture period

Sessment paper and presentation or term paper

Course type

Comment

SWS

Frequency

Workload attendance

Lecture

2.00

WiSe

28 h

Exercises

2.00

WiSe

28 h

Total time of attendance for the module

56 h