Algorithmic Research in Teams

Module title: Algorithmic Research in Teams
No information

Website: http://www.akt.tu-berlin.de/menue/teaching

Learning Outcomes
On successful completion, students will be able to:
- approach concrete problems in algorithmic research
- present in written and oral form their research findings in a concise and understandable manner
- judge and classify current research results as well as their own findings

Content
The research project addresses recent selected research publications. Typically, the research topics will feature questions in algorithmic research, e.g., data clustering, computational social choice, data mining, graph algorithms with applications, social network analysis. The project will contain the following parts of algorithmic research:

- Reading and understanding of previous research contributions.
- Identification of open questions and potential improvements.
- Active participation in the research process together with other participants and the advisors.
- Development of technical writing skills in English.
- Submitting a small paper for publication to an international venue.

The participants will work in groups of size two or three in close cooperation with the advisors.

Module Components

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Type</th>
<th>Number</th>
<th>Cycle</th>
<th>SWS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algorithmic Research in Teams</td>
<td>PJ</td>
<td>0434 L 234</td>
<td>k.A.</td>
<td>6</td>
</tr>
</tbody>
</table>

Workload and Credit Points

<table>
<thead>
<tr>
<th>Algorithmic Research in Teams (Projekt)</th>
<th>Multiplier</th>
<th>Hours</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent reading &amp; research, drafting of manuscripts</td>
<td>15.0</td>
<td>12.0h</td>
<td>180.0h</td>
</tr>
<tr>
<td>Presence</td>
<td>15.0</td>
<td>6.0h</td>
<td>90.0h</td>
</tr>
</tbody>
</table>

The Workload of the module sums up to 270.0 Hours. Therefor the module contains 9 Credits.

Description of Teaching and Learning Methods
The algorithmic research project will feature
- joint informal research discussions,
- presentations of research results by the participants, and
- drafting of an English manuscript with the help of the advisors.

Requirements for participation and examination
Desirable prerequisites for participation in the courses:
Basic knowledge of algorithms

Mandatory requirements for the module test application:
No information
Module completion

Grading: graded
Type of exam: Portfolio examination
Language: English

Grading scale:
This exam uses its own grading scale (see test description).

Test description:
According to §47 (2) AllgStuPO the grade will be calculated applying grading key 1 of Fakultät IV, it may however be altered in favour of the students.

Test elements

<table>
<thead>
<tr>
<th>Type of exam</th>
<th>Category</th>
<th>Duration/Extent</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Ergebnisprüfung) manuscript</td>
<td>written</td>
<td>50 15 pp</td>
</tr>
<tr>
<td>(Ergebnisprüfung) oral presentation in the course</td>
<td>oral</td>
<td>50 60 min</td>
</tr>
</tbody>
</table>

Duration of the Module

This module can be completed in one semester.

Maximum Number of Participants

The maximum capacity of students is 9

Registration Procedures

http://www.akt.tu-berlin.de/menue/teaching/

Recommended reading, Lecture notes

Lecture notes: unavailable
Electronical lecture notes: available

Additional information:
Slides will be made available during the lecture period: www.isis.tu-berlin.de

Assigned Degree Programs

This module is used in the following module lists:

Computer Engineering (Master of Science)
StuPO 2015
Modulisten der Semester: SS 2017 WS 2017/18 SS 2018

Computer Science (Informatik) (Master of Science)
StuPO 2015
Modulisten der Semester: SS 2017 WS 2017/18 SS 2018

Elektrotechnik (Master of Science)
StuPO 2015
Modulisten der Semester: SS 2017 WS 2017/18 SS 2018

Informatik (Master of Science)
MSc Informatik PO 2013
Modulisten der Semester: SS 2017 WS 2017/18 SS 2018

Technische Informatik (Master of Science)
StuPO 2013
Modulisten der Semester: SS 2017 WS 2017/18 SS 2018

Wirtschaftsinformatik / Information Systems Management (Master of Science)
StuPO 2013
Modulisten der Semester: SS 2017 WS 2017/18 SS 2018
StuPO 2017
Modulisten der Semester: WS 2017/18 SS 2018

Miscellaneous

This course is not offered regularly, you will find detailed information on our website: http://www.akt.tu-berlin.de/menue/teaching/