inf350 - Special Topics in 'Safety-Critical Systems' I

Module name  
Special Topics in 'Safety-Critical Systems' I

Module code  
inf350

ECTS credit points  
6.0 KP

Workload  
180 h

Used in degree programmes  
- Master's Programme Computing Science > Mastermodule
- Master's Programme Embedded Systems and Microrobotics > Akzentsetzungsmodul

Contact person  
module responsibility
- Andreas Hein
- Werner Damm

authorized examiners
- Andreas Hein
- Werner Damm

Prerequisites  

Skills to be acquired in this module  
This module integrates current developments in the field in adequate study courses.

Professional competences  
The students:
- define and contrast a computer science part, in which they are specialised, in detail or evaluate computer science in general
- recognise and evaluate applied techniques and methods of their subject and are aware of their limits
- identify, structure and solve problems/tasks, also in new or developing subject areas
- apply state of the art and innovative methods to solve problems, if necessary from other disciplines
- are aware of the current limits and contribute to the development of computer science research and technology
- discuss and evaluate recent computer science developments

Methodological competences  
The students:
- evaluate and apply tools, technology and methods sophisticatedly
- combine new and original approaches and methods creatively
- evaluate problems/tasks, including new or developing subject areas of their discipline and apply computer science methods for solutions and research

Social competences  
The students:
- support team process by their abilities

Self-competences  
The students:
- pursue the overall and special computer science development critically
- implement innovative professional activities effectively and independently
<table>
<thead>
<tr>
<th><strong>Module contents</strong></th>
<th>See assigned course description, e.g. „Sicherheitsanalysetechniken“, „Zielarchitekturen Eingebetteter Systeme für Automotive-Anwendungen“, „Modellbasierter Systementwurf“…</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Recommended reading</strong></td>
<td>As announced in course</td>
</tr>
<tr>
<td><strong>Links</strong></td>
<td></td>
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<tr>
<td><strong>Language of instruction</strong></td>
<td>German</td>
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<tr>
<td><strong>Duration (semesters)</strong></td>
<td>1 semester</td>
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<tr>
<td><strong>Module frequency</strong></td>
<td>unregelmäßig</td>
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<tr>
<td><strong>Module capacity</strong></td>
<td>Unlimited</td>
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<tr>
<td><strong>Module level</strong></td>
<td>AS (Akzentsetzung /Accentuation)</td>
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<tr>
<td><strong>Modulart</strong></td>
<td>je nach Studiengang Pflicht oder Wahlpflicht</td>
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<tr>
<td><strong>Lern-/Lehrform / Type of program</strong></td>
<td>2 courses out of V, S, Ü, P, PR</td>
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<td><strong>Vorkenntnisse / Previous knowledge</strong></td>
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<td><strong>Examination</strong></td>
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<td><strong>Final exam of module</strong></td>
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<tr>
<td><strong>Course type</strong></td>
<td>Course selection</td>
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<tr>
<td><strong>SWS</strong></td>
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<tr>
<td><strong>Workload attendance</strong></td>
<td>56 h</td>
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