Teaching and Research Area
Mechatronics in Mobile Propulsion

Lecturer: Dr.-Ing. Dipl.-Wirt.-Ing. Johannes Richenhagen
Thursdays, 12:30 – 16:00 hrs, S11 (1385|211)
Software in mobile Propulsion in SS2023

Topics

How is the modern drive system developing?

Which technologies are used in development to fulfill the system requirements of modern drive systems?

Practical Experience:
- Direct exchange between students and representatives from industry
- Software development and dealing with complexity at system level

Target Group:
- Students from the fields of mechanical engineering, computer science, and electrical engineering who are interested in the software development of automotive systems

Requirements:
- None (Helpful: First experience with MATLAB/Simulink and C programming)

Further information can be found here: Academics/Lecture: Software in Mobile Propulsion (mmp.rwth-aachen.de)
**Software in mobile Propulsion in SS2023**

**Practical Insights**

<table>
<thead>
<tr>
<th>Develop your own software function!</th>
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<tr>
<td><strong>Content of the exercise:</strong></td>
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<tr>
<td>– Development of a software function in Matlab/Simulink for a demonstrator vehicle based on the methods presented in the lecture.</td>
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<td><strong>Practical exercise and excursion:</strong></td>
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<td>– This software function is then validated in the vehicle during the last exercise session (practical exercise).</td>
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<td>– The practical exercise is planned to be extended by an excursion in Aachen, where further interesting insights into the practical automotive software development at MMP and the FEV.io are provided.</td>
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<td>– Further information will be provided during the course.</td>
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Software in mobile Propulsion in SS2023
Lecture/Exercise Overview (preliminary, from 27.03.2023)

<table>
<thead>
<tr>
<th>KW</th>
<th>Date</th>
<th>Time</th>
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<tbody>
<tr>
<td>14</td>
<td>06.04.2023</td>
<td>12:30 – 16:00</td>
<td>Lecture 1</td>
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<td>15</td>
<td>13.04.2023</td>
<td>12:30 – 14:00</td>
<td>Exercise 1</td>
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<td>16</td>
<td>20.04.2023</td>
<td>12:30 – 16:00</td>
<td>Lecture 2</td>
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<td>17</td>
<td>27.04.2023</td>
<td>12:30 – 14:00</td>
<td>Exercise 2</td>
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<td>18</td>
<td>04.05.2023</td>
<td>12:30 – 16:00</td>
<td>Lecture 3</td>
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<td>19</td>
<td>11.05.2023</td>
<td>12:30 – 14:00</td>
<td>Exercise 3</td>
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<td>18.05.2023</td>
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<td>21</td>
<td>25.05.2023</td>
<td>12:30 – 16:00</td>
<td>Lecture 4</td>
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<td>22</td>
<td>01.06.2023</td>
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<td>08.06.2023</td>
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<td>24</td>
<td>15.06.2023</td>
<td>12:30 – 16:00</td>
<td>Exercise 4+Excursion</td>
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<td>25</td>
<td>22.06.2023</td>
<td>12:30 – 16:00</td>
<td>Lecture 5</td>
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<td>26</td>
<td>29.06.2023</td>
<td>12:30 – 16:00</td>
<td>Lecture 6</td>
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<td>27</td>
<td>06.07.2023</td>
<td>12:30 – 14:00</td>
<td>Question time</td>
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<td>28</td>
<td>13.07.2023</td>
<td>12:30 – 14:00</td>
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Basic information

- Thursdays, 12:30 – 16:00 hrs, S11 (1385|211)
- Lecture and exercise materials are provided via the Moodle study room.
- The given time plan is subject to situational changes.
- Exam date: 11.08.2023; 18-19 hrs; H09 (1385|105)
- Consultation by appointment
- Kontakt:
  - Patricia Wessel: wessel_p@mmp.rwth-aachen.de
  - Haoran Wang: wang_h@mmp.rwth-aachen.de