**Project work – Experimental Analysis on Computed Torque Control**

<table>
<tr><td colspan="2">Project Title: Experimental Analysis on Computed Torque Control</td><td>Institution ID:<br>MEI-112</td></tr>
<tr><td colspan="3">Project Aim: Implementing a CTC algorithm for a DC motor. The students must create a mathematic model of the control system (DC motor with a spring as a load), then the control algorithm ca be developed for an ARDUINO (or similar) embedded system. Finally, the control solution should be tested through experiments.</td></tr>
<tr><td>Supervisor:</td><td colspan="2">Varga Bence</td></tr>
<tr><td>Contact:</td><td colspan="2">varga.bence@bgk.uni-obuda.hu</td></tr>
<tr><td>Group: (min./max.):</td><td colspan="2">3-5 person<br>without the minimal requirement (3person) the project is not starting</td></tr>
<tr><td>Preliminary Requirements:</td><td colspan="2">Completing Subjects: Programming I. – II., Industrial Robot Kinematics and Dynamics.</td></tr>
<tr><td rowspan="6">Scheduling:</td><td>1.-2. week</td><td>Get in touch with the supervisor, forming the project group.</td></tr>
<tr><td>3.-4. week.</td><td>Review on Computed Torque Control and closed loop control of DC motors.</td></tr>
<tr><td>5.-6. week</td><td>Creating a mathematic model on the controlled system.</td></tr>
<tr><td>7.-9. week</td><td>Implementing the control algorithm.</td></tr>
<tr><td>10.-13. week.</td><td>Experimental analysis.</td></tr>
<tr><td>14.-15. week</td><td>Documenting the results.</td></tr>
<tr><td colspan="3">Note:<br>• Application in the NEPTUN system.</td></tr>
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