

wb1413

Multibody Dynamics B

Spring Term 2013, Thu 15:45-17:30, room EWI-CZ C), 4 ECTS credits.

Homework assignment 4

Redo assignments 2a-f and 3a-c but now use independent generalized coordinates and Lagrange equations to derive the equations of motion. Compare and discuss your results with the results from assignments 2a-f and 3a-c. Note that this can not be done for the constraint forces (or the constraint impulses) since by using independent generalized coordinates you have eliminated these forces from the equations of motion.

Bonus Question: Try to think of a general method to determine *only one* arbitrary constraint force when using the Lagrange equations of motion and demonstrate this method on the double pendulum.

IN-CLASS QUIZ: For the next lecture on Thu 28 March 2013, please bring in your laptop or smart phone, or any other device by which you can make a wifi connection in order to vote. Today I like to do a small test on the usage of in-class quizzes with the TurningPoint software and voting via Responseware. The contents of the in-class quiz is of course Multibody Dynamics. Those who participate are good for 1 Bonus point on HW5.