

I. IDENTIFICATION

Title:	Kinematic analysis of cinema dolly
Author:	Suren Ali-Ogly
Type:	Bachelor thesis
Faculty:	Fakulta strojní (FS)
Department:	Ústav mechaniky, biomechaniky a mechatroniky
Opponent:	Jan Pelikán
Work place:	Ústav mechaniky, biomechaniky a mechatroniky

II. CRITERIA EVALUATION

Level	Above average
Thesis topic is aimed into the movie industry and its useful mechanic and mechatronic devices. Specifically advanced device for precise camera movement TECHNODOLLY by TECHNOCRANE is analysed. Review on mechanisms used in movie industry, kinematic description of technodolly motion, numeric solution of the set of equations and the verification of previous solution are the general steps of the proposed work.	

Assignment fulfillment	Fullfiled with small reservations
From the five tasks, according to assignment, three of those (1,2,3) were fully completed, part four was done partially (model was animated only in MATLAB®). Part five, due to its direct connection with part four, was also competed partially. Partially completed tasks do not have an adverse impact on the overall quality of the presented work.	

The chosen solution procedure	A - excellent
The author acted in accordance with the methods and techniques taught at the faculty. The transformation matrix method and MATLAB programing is very effective way how to reach the final solution. Camera dolly kinematic motion animation was executed by the kinematic solver in MATLAB.	

Technical proficiency	A - excellent
Technical proficiency of the work is on a very good level. Author clearly demonstrates his ability to solve complex engineering problems. The work required to work with large amount of external information sources and author's ability to cope with this challenge proved to be flawless.	

Formal and language use, work scope	A - excellent
Typographical and graphical level of the work is very good. The scope of work is exceeding the expected scope.	

Sources selection, citations correctness	B – very good
Work includes quite an extensive list of references. Author does properly use bibliographical citation norms and customs but sources of some pictures are not cited.	

Additional commentaries and evaluations

Obtained simulation results and suggested procedure are surely useful for next tasks about camera trajectory planning. Used procedure is also very important and frequently solved in another areas of the object manipulation in three dimensional space.

III. TOTAL EVALUATION AND CLASSIFICATION PROPOSITOON

In general the goals of the proposed work are basically satisfied. The resulting work clearly demonstrates author's ability to solve practical engineering problems involving active use of computer (CAD system, matlab programming, numeric analysis, animation).

The work is graded **A - excellent**

Date: 18.8.2015

Ing. Jan Pelikán, Ph.D.