

I. IDENTIFICATION DATA

Thesis name:	Online Foot Strike Detection of a Hexapod Walking Robot Using Inertial Measurements
Author's name:	Jiří Kubík
Type of thesis :	bachelor
Faculty/Institute:	Faculty of Electrical Engineering (FEE)
Department:	Department of Cybernetics
Thesis reviewer:	Krzysztof Walas, PhD
Reviewer's department:	Institute of Control, Robotics & Information Engineering, Poznan University of Technology, Poland

II. EVALUATION OF INDIVIDUAL CRITERIA

Assignment	challenging
<i>Evaluation of thesis difficulty of assignment.</i>	
The assignment was challenging as for the bachelor's thesis but not extraordinary so the student have problems with finishing it on time.	

Satisfaction of assignment	Fulfilled
<i>Assess that handed thesis meets assignment. Present points of assignment that fell short or were extended. Try to assess importance, impact or cause of each shortcoming.</i>	
The assignment was fulfilled. The student conducted all the required tasks providing new and interesting results.	

Method of conception	correct
<i>Assess that student has chosen correct approach or solution methods.</i>	
The method proposed by the student is correct as it was proven in the thesis. The correctness of the approach is validated in real life experiments conducted on the six-legged robotic platform. However, the author for the slope is assuming the changes of the angle for two axis but I could imagine the slope and the pose of the robot when all three angles are affected. Additionally, I could not find the description of how the accelerometers on the legs are aligned with end-point coordinates/ Was there any calibration procedure?	

Technical level	B - very good.
<i>Assess level of thesis specialty, use of knowledge gained by study and by expert literature, use of sources and data gained by experience.</i>	
The level of expertise is high. Student is using proper vocabulary and technical terms. However, more in depth description of models used in machine learning part of the thesis would be advisable.	

Formal and language level, scope of thesis	B - very good.
<i>Assess correctness of usage of formal notation. Assess typographical and language arrangement of thesis.</i>	
The thesis is well written with couple of typos. The most annoying thing was the lack of the references to the Figures provided in the text.	

Selection of sources, citation correctness	B - very good.
<i>Present your opinion to student's activity when obtaining and using study materials for thesis creation. Characterize selection of sources. Assess that student used all relevant sources. Verify that all used elements are correctly distinguished</i>	

from own results and thoughts. Assess that citation ethics has not been breached and that all bibliographic citations are complete and in accordance with citation convention and standards.

The appropriate references were provided in the thesis. Their number and quality suggest that the student made a significant effort to obtain them. However, the missing part is the relation of the work described in this thesis to the presented works in the references. There is also no clear and strong statement about the contribution of this thesis.

Additional commentary and evaluation

Present your opinion to achieved primary goals of thesis, e.g. level of theoretical results, level and functionality of technical or software conception, publication performance, experimental dexterity etc.

In the introduction, instead of using word "construction" -- I would propose the use of word mechanical design in the future.

Problem statement: author only mentioned statically stable gaits, but there might be dynamically stable gaits.

For the future work I would propose not only change the height of foot placement (swing down) but also allow to select other point in xy plane. Some kind of search movement.

I would like to also know (quantitatively): How the movement speed influences the classification?

III. OVERALL EVALUATION, QUESTIONS FOR DEFENSE, CLASSIFICATION SUGGESTION

Summarize thesis aspects that swayed your final evaluation. Please present apt questions which student should answer during defense.

I evaluate handed thesis with classification grade **B - very good.**

Date: **06/04/18**

Signature:

