

CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE

Faculty of Tropical AgriSciences

Evaluation of the Diploma Thesis by Opponent

Thesis Title **Decomposition processes of household waste via small-scale biogas technology: a case study of Nigeria**

Name of the student **Genevieve Chinwe Olumba, BSc**

Thesis supervisor **doc. Ing. Hynek Roubík, Ph.D.**

Department **Department of Sustainable Technologies**

Opponent **Ing. Ghaith Hasan, PhD.**

Institution **ExxonMobil**

Formulation of the aims	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input checked="" type="checkbox"/> 3	<input type="checkbox"/> 4
Appropriate research methods	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input checked="" type="checkbox"/> 3	<input type="checkbox"/> 4
Fulfilment of the aims	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input checked="" type="checkbox"/> 3	<input type="checkbox"/> 4
The scientific contribution of the thesis and originality	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input checked="" type="checkbox"/> 3	<input type="checkbox"/> 4
The theoretical background of the author (literature review, theoretical background)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input checked="" type="checkbox"/> 3	<input type="checkbox"/> 4
Data analysis	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input checked="" type="checkbox"/> 3	<input type="checkbox"/> 4
Handling with scientific literature (relevant citations)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input checked="" type="checkbox"/> 3	<input type="checkbox"/> 4
Argumentation and critical thinking	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input checked="" type="checkbox"/> 3	<input type="checkbox"/> 4
Abstract and keywords	<input type="checkbox"/> 1	<input checked="" type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
Structure of the chapters and paragraphs	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input checked="" type="checkbox"/> 3	<input type="checkbox"/> 4
Accuracy of terminology and comprehensibility	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input checked="" type="checkbox"/> 3	<input type="checkbox"/> 4
Formatting, layout and general impression	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input checked="" type="checkbox"/> 3	<input type="checkbox"/> 4
Evaluation of the work by grade (1, 2, 3, 4)				3

Evaluation: 1 = the best

Date 03/06/2024

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Signature of Opponent

Other comments or suggestions:

As a reviewer, I agree with the "Report on checking content similarity" of the thesis called: Decomposition processes of household waste via small-scale biogas technology: a case study of Nigeria.

However, as a reviewer, I will be focusing on reviewing the content of the thesis itself and leave the decision about the plagiarism to the defense committee.

The thesis of Olumba Genevieve Chinwe

deals with an important topic, which is the decomposition processes of household waste via small scale biogas technology. However, there are many points of concern in general.

The table of context misses chapter four, and the bold font was used incorrectly.

The list of tables and figures must be refreshed to reflect the correct place of tables and figures inside the thesis.

The list of the abbreviations used in the thesis misses abbreviations such as HRT.

The dissertation's text consists of 87 pages, 61 of which are related to insufficient literature review "due to the absence of recent papers and references" about biogas technology in general without focusing on the biogas technology in Nigeria, which is the case study of this thesis.

In general, there is a paucity of citations to recent references.

The figures could definitely be better presented (low quality without references). Editing the text is needed as there are many connected and duplicated words. A significant review of the written English (grammar, syntax, orthography) should have been done.

The aims of the thesis, methodology, results, discussion, conclusion, and recommendations are of scientifically poor quality.

Questions for thesis defence:

1. Please explain how the two aims of your research can be linked to the thesis topic or to the data that was analyzed.
2. mentioning methods such as the Kjeldahl method, atomic absorption spectroscopic method, Molybivanado phosphoric acid method, and ANOVA statistical deserve a detailed explanation; please explain why you used ANOVA specifically.
3. Nigeria is the second largest oil and gas producer in Africa. Do you think this fact affected society's adoption of renewable energy technologies such as biogas?

Date 03/06/2024

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