

Diploma thesis review

Příjmení a jméno řešitele: **Deepali Dhruvanshi**
Název diplomové práce: **Thermo-physiological comfort analysis of traditional Indian clothing (Sarees)**
Vedoucí diplomové práce: **doc. Ing. Antonín Havelka, CSc.**
Recenzent: **Ing. Ladislav Nagy, Ph.D.**

The aim of the diploma thesis is to evaluate the thermo-physiological properties of the adjacent traditional clothing worn in the southern regions of Asia. Samples for objective evaluation were selected using a questionnaire survey and analysis of results. The evaluation is performed both in the field of subjective evaluation of clothing according to the preferences of the wearers and by means of objective assessment by means of instruments and recommended standards for the assessment of heat, air transmission and water vapor textile sample. Due to the way the garment is worn by layering it on top of each other objective evaluation also includes the evaluation of the thermal resistance of the garment using the device Thermal Manikin, which allows you to simulate and objectively measure the properties of clothing in his "Shape" and "form" in its natural way of wearing. A large population wear this clothing every, it is an interesting topic with good potential for further research and subsequent application.

Assessment / evaluation of the diploma thesis:

- 1) Objectives of the assignment
- 2) Result evaluation and formal aspects of the work.
- 3) Statement to award the corresponding academic degree.
- 4) Recommendations for defense.
- 5) Final mark.

1) Objectives of the assignment

The aim was to carry out a search and evaluation term thermo-physiological comfort of traditional and Indian clothing and select the best material combination accordingly. Test are performed objective and subjective. Experimental part of the job can divide d by three areas. The first is Subjective evaluation of clothing on probands, secondly objective testing is performed on devices like, heat resistance (thermal resistance) Rct , breathability (air permeability) and a water vapor permeability of WVTR to evaluate the performance of samples . The third part includes testing on thermal manikin.

The scope of the assignment of the diploma thesis is extensive, and therefore the author focuses only on solving it to the most important areas for meeting all the objectives of the work in the specified range. The author of the thesis uses the knowledge from the research part both in the analysis and evaluation of the measured ones data from objective testing, as well as in the discussion of the results at the end of the work. Results achieved are very significant.

From the submitted s thesis it is obvious that the author of the work progressed systematically. From the discussion at the end of thesis the author notes that this type of clothing is suitable for objective analysis and testing on thermal manikin.

The discussion of the results and the conclusions of the author can be agreed. But I would choose a more careful wording in the area of the possibility of using thermal manikin in testing loose-fitting clothing (p. 68), which is also evidenced by the measured results in chap. 4.3.4. To draw a conclusion in this area, it was appropriate to extend the testing to include motion simulation and to carry out further investigations.

2) Result evaluation and formal aspects of the work.

The submitted diploma thesis is clearly processed in the appropriate scope and quality of the text. Both the research part and the experimental part meet the requirements with their division and scope for the diploma thesis. The student drew and processed information from 130 sources. For I would only recommend the text to a European reader who has no experience in this area of clothing add pictures to the descriptive text of traditional clothing, or add a few explanatory ones notes, such as page 28, where information is provided on so-called "bamboo fibers", but what is probably the source of the raw material. In several places, the title is bounced from a paragraph of text or a table, but overall it is diploma thesis prepared above average both in terms of content and form and I evaluate it positively.

Question from the experimental part:

1. The objective evaluation is performed clothing using thermal mannequin, also involved the simulation of movement, which can influence on the loser fit clothing, how does it affect the results.

3) Statement to award the corresponding academic degree.

Work scope and drafting meets the targets set out in the specified. I recommend the award of the corresponding academic title (Ing.) .

4) Recommendations for defense.

I recommend the submitted work for defense .

5) Design of the final grade .

With regard to the submitted work I evaluate the thesis as

" 1 " (Excellent) .

In Liberec 27.8.2020

Ing. Ladislav Nagy, Ph.D.