

OPINION

on the dissertation for the award of the educational and scientific degree "DOCTOR"

Author of the dissertation: Galina Doncheva Stefanova

Title of the dissertation: Contemporary ergonomic and design aspects in the design of clothing with special purpose

Doctoral program: "Ergonomics and Industrial Design"

Professional field: 5.13 "General Engineering"

Member of the scientific jury: Prof. Dr. Eng. Tanya Pencheva Panayotova

The basis for the present statement is Rector's Order of the Technical University — Varna No. 9 of 05.01.2026.

The doctoral dissertation of PhD candidate Galina Doncheva Stefanova has been prepared in a volume of 140 pages, containing text, 43 figures and 21 tables. The list of literature sources contains 125 titles, of which 88 are in Cyrillic and 37 are in Latin script. The volume of the appendices is 54 pages.

1. Relevance of the problem developed in the dissertation.

My proposal for reviewing the dissertation is relevant, including scientific-applied research focused on the development of a comprehensive methodology for surveying and assessing special-purpose clothing intended for workers in the restaurant business and the food-taste industry. Emphasis is placed on synthesizing technical-technological requirements and an anthropocentric approach in the design of specialized work garments, considering the complex interrelations between production requirements, health aspects and design solutions. The topic is directly related to outlined tendencies in prioritizing personnel needs over employers' theses. From the employees' side, ergonomic qualities of protective design solutions are defined, which should respond to specific production parameters and guarantee their functionality and comfort, including optimal mobility, effective thermoregulation and reduction of psychophysiological stress. From the employers' side, attention is focused on organizational aspects of the labor process — rationalization of production processes, increasing operational efficiency, minimizing professional risks in accordance with ISO and EN standards, as well as the introduction of innovative design concepts that integrate functional characteristics with aesthetic components and corporate identity. All this indisputably proves the relevance of the problem posed as the main emphasis of the present dissertation.

2. Contributions of the dissertation.

The dissertation possesses an original scientific contribution to knowledge thanks to the achieved scientific-applied results, realized through the introduction of effective methods that correspond to contemporary achievements in the researched field.

The scientific-applied contributions presented in the dissertation can be summarized as follows:

- A systematic and critical study of the historical development and current state of design for specialized work clothing in the food-taste industry, with emphasis on technical, functional, ergonomic and aesthetic characteristics.
- Theoretical justification of conceptual principles and methodological approaches for ergonomic design of professional workwear intended for use by specialists in the food-taste industry.

- Development of an innovative methodology for ergonomic design of work uniforms for specialists in the food-taste industry, directing the design process for product creation — from conceptual phase to final realization — which ensures and increases the ergonomics and overall comfort of the end user.

Applied contributions:

- Through its systemic approach, based on ergonomics, a comprehensive assessment of ergonomic parameters of the created prototypes of work clothing has been made under their use in real working conditions.
- The effectiveness of the developed methodology has been experimentally proven by the author when applied to the design of ergonomic and visually durable work clothing for employees in enterprises of the food industry.

The contributions will also enrich certain aspects of existing practice, theory and the educational process in the field of ergonomic design of work clothing. No plagiarism was detected in the dissertation.

3. Evaluation of the dissertation publications.

The main results of the dissertation are realized in 4 publications, 2 of which are co-authored and 2 authored solely by the doctoral candidate. All publications are on topics of the dissertation. They sufficiently, fully and accurately reflect the contribution moments.

4. Opinions and recommendations on the dissertation.

1. Paragraph 3.3 in the third chapter of the dissertation “Experimental application of the developed methodology in a real working environment” could be separated as an independent fourth chapter.
2. The conclusion at the end of the dissertation could be replaced with “General conclusions and summary.”
3. The relative share of contemporary publications in the general list of used literature could be increased.

5. Conclusion

My overall assessment of the presented dissertation is positive. It represents a completed scientific-applied development with obtained scientific-applied contributions. I consider that it fulfills the requirements of the Law on the Development of the Academic Staff and the regulations for its application. I propose that the members of the scientific jury award the educational and scientific degree “Doctor” to Galina Doncheva Stefanova under the doctoral program: “Ergonomics and Industrial Design” in the professional field: 5.13 “General Engineering.”

Member of the jury:
(Prof. Dr. Eng. T. Panayotova)