## Design of an Ergonomic Chair for Handloom Workers: Enhancing Comfort and Productivity

Author<sup>1</sup>, Author<sup>2</sup> and Author<sup>3</sup>

<sup>1</sup>Industrial Design, National Institute of Design, Bhopal, Madhya Pradesh, Email: author1@gmail.com

<sup>2</sup>Department of Textile and Apparel Design, Name of the Institution, Location, State, Email: author2@gmail.com

<sup>3</sup>Department of Design, Communication Design, Name of the Institution, Location, State, Email: author3@gmail.com

## Abstract:

Handloom workers play a pivotal role in preserving traditional crafts and heritage while contributing significantly to the textile industry. However, their work often involves long hours of sitting, leading to various musculoskeletal disorders and reduced productivity due to discomfort. This research focuses on addressing these issues by proposing a novel ergonomic chair specifically designed for handloom workers.

The material selection emphasizes sustainability and durability, aligning with the principles of ecoconscious design. The chair integrates locally sourced, eco-friendly materials without compromising on strength and stability. Additionally, the manufacturing process is optimized for efficiency, ensuring affordability and scalability for widespread adoption among handloom workers.

To validate the effectiveness of the designed chair, comprehensive ergonomic assessments and user feedback sessions are conducted. The results demonstrate significant improvements in posture, reduced strain, and increased overall satisfaction among handloom workers. Moreover, enhanced comfort leads to improved focus and productivity, positively impacting the quality and quantity of their output.

## Keyword: Keyword1, Keyword2, Keyword3

A typical full paper will have the following or similar headings, with no author identification:

Title

Abstract

Background/Motivation

Aim(s)

Significance

Method (which can elaborate about the list of methods, drawings, pictures, etc.); A typical paper shall consists of 4 to 6 pages in which all the details are elaborated.

Results (Text, graphical and tabulated results shall be presented and explained in detail)

Conclusions (The overall conclusion shall be briefed in one paragraph)

Acknowledgements (Acknowledge all the supporters and funding agencies)

References (Give list of references)

Each person who wish to present the paper should pay Rs.2500/- per person. They will get the Certificate of Presentation along with the title of the paper. Irrespective of the number of authors of the papers, Maximum three presenters shall present the paper in the given time limit. Other authors

shall attend the conference by paying Rs.1500/- as participants and they will be provided with the Certificate of Attendance. However, in the Conference proceedings the papers will be published with the details of all the authors.

## References

- 1. Dorst, K.: The problem of design problems. In: Cross, N., Edmonds, E. (eds.) Expertise in Design: Design Thinking Research Symposium 6, pp. 135–147. Studios, Sydney (2003)
- 2. Fallman, D.: Design-oriented human–computer interaction. In: Proceedings of the Conference on Human Factors in Computing Systems, CHI, pp. 225–232. ACM (2003)
- 3. Flick, U.: Qualitative Sozialforschung. 3. Aufl. Reinbek, Hamburg (2010)
- 4. Richter, C., Allert, H.: A practice-oriented perspective on collaborative creative design. Int. J. Design Creativity Innov. 4(3–4), 195–205 (2016)
- 5. Visscher-Voerman, I., Gustafson, K.L.: Paradigms in the theory and practice of education and training design. Educ. Tech. Res. Dev. 52(2), 69–89 (2004)