

Poster session 4: Biofabrication of consumer goods

P4.1

Smart design in Bioconstruction

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Aim: Biofabrication is becoming a pioneer to advance the production of discipline as well as in materials and manufacturing processes.

Changes in lifestyles nutrition and activities affect human actions. The new products provide answers to such transformations.

Apply tools of Smart Design for bioengineered products are efficient not only in the functional aspect but also in conceptual and formal aspects.

Methods: Design develops methods to optimize human well-being.

Studies and analyzes from different disciplines together to create new or redesigned products.

These analyzes are based on:

- Ergonomics
- Biomechanics
- Artistic Expression
- Sustainability

Results: The results are obtained if a design project we include a comprehensive study on factors such as:

- Ergonomics. The person-environment-technical relationship must be completed for each individual product adaptable.

Ergonomic context in which is used a product with increased safety efficiency and productivity as well as increased user interaction.

To this are essential anthropometric and detailed anatomical studies the study of the human dimensions for the purpose of assessing physical changes of man.

- Biomechanics. The new products are not static but have some kind of function mobility or drive so the biomechanical study is essential for movement balance endurance etc. It should analyze the kinematic and mechanical phenomena.

- Artistic Expression. The market requires that products are attractive and better in form the perceptual tendency textures colors finishes and all visual aids that may accompany a product like built: brands visuals but also .. external as packagings bags ...

- Sustainability. We must take into account environmental and social benefits that can protect public health welfare and the environment with products that take into account their entire life cycle from extraction of the first materials to use and end disuse in a closed cycle.

Conclusions: Biofabrication handles materials processes and techniques. Smart Design produces products with high added value efficient customized ergonomic connected simple moving beautiful and custom.

