[Grant-in-Aid for Scientific Research(S)]

Integrated Science and Innovative Science (Comprehensive fields)



Title of Project : Technical and managerial study on design proposal of fashion apparel and textile for international market

Masayuki Takatera (Shinshu University, Faculty of textile science and technology, Professor)

Research Area : Textile engineering, Clothing science and technology, Fashion design, Kansei information science, Business management

Keyword : fashion, apparel, design, textile, Internationalization

[Purpose and Background of the Research]

Internationalization of Japanese fashion is a national policy and subject for many years. However, the international presence is relatively low compared with electrical appliances and automobile industries. Among other Asian market, an actual result is poor and not nearly enough. The fertile Japanese domestic market, which is next to the United States, hollowed out because of the demand for manufacturing cost reduction and now facing serious situation. In order to obtain the knowledge to contribute to the internationalization of Japanese fashion business, this study introduce the importance of opinions of different kind of studies such as Kansei recognition information / clothing / commercial / management science and technology into the textile engineering that is apt to overemphasize the technology, take into account this hollowization, and promote the technical and managerial study.

Field 1: We proceed with technical and managerial approach of textile and apparel technology about design, manufacturing and selling corresponding to the international fashion market. We obtain knowledge of design and manufacturing process of fashion textile and consider the standardization and clear the characteristics of apparel design. We state the limit of recognition to apparel designer about textile presentation clearly.

Field 2: We aim at construction of "Textile Proposal System (TPS)" being accepted in the international fashion market. We devise techniques to express texture and drape of the products precisely from a viewpoint of mechanical property and solve the requirement of TPS use for the electronic commerce. Furthermore, we think up the representation of movement of textile and extend to a prediction of the property of sense of touch.

[Research Methods]

Field 1: On the basis of the knowing of the Couture maison (Cm) and Fast fashion (Ff) in the precedence study about fashion industry for international market, research about internationalization techniques of the design, pattern making and body figure are carried out based on the company and market. In addition, we investigate the category, color, visual texture, tactile feeling, physical properties, evaluation language, design and production technique, and business / distribution of the textile, which both suppliers of Cm and Ff will select, from viewpoints of textile engineering / apparel design and manufacturing / Kansei recognition science / commercial science and business management. Field 2: We study the recognition process of

textile for fashion designers and standardization of textile information. In addition, we research the presentation method of actual textile in the textile business for reference. So we can decide the representation method of textile information with TPS and preserve the compatibility with existing design / production system.

[Expected Research Achievements and Scientific Significance]

We make the knowledge of different fields intersect with textile engineering and give a solution and practicability for the advance of textile engineering in the international fashion market. In addition we show the prospects about remote multi-mediums communication business of fashion textile.

[Publications Relevant to the Project]

- Y. Cho, M. Takatera, K. Tsuchiya, S. Inui, H. Park, Y. Shimizu, Computerized pattern making focus on fitting to 3D human body shapes, International Journal of Clothing Science and Technology, Vol.22 No.1, pp.16-24,2010
- T. Otani, K. Kajiwara, K. Ikeda, M. Takatera, H. Morikawa, Entrepreneurship (Entrepreneur's Kansei) on the Luxury brand business, Journal of Japan Society of Kansei Engineering, Vol.7, 1, 5-30 (2007)

Term of Project FY2012-2016

- **[Budget Allocation]** 147,600 Thousand Yen
- [Homepage Address and Other Contact Information]

http://gtmb.shinshu-u.ac.jp