단국대학교 UI(University Identity)를 구현한 학위예복 디자인 개발 Development of Academic Dress with UI(University Identity) for Dankook University

| 강혜승 | KANG Hae-Seung |
|------------------------------------|---|
| 단국대학교 패션산업디자인과 교수 | Professor, Dept. of Fashion Merchandise Design, College of Arts, Dankook University |
| 김현주+ | KIM Hyun-Joo+ |
| 단국대학교 패션산업디자인과 산학협력전담 조교수 | Assistant Professor, Industry Academic Cooperation Foundation, Dept. of Fashion Merchandise design, College of Arts, Dankook University |
| 김주연, 김윤진 | KIM Ju-Yeon, KIM Yun-Jin |
| 단국대학교 일반대학원 패션·제품디자인과 융합디자인전공 석사과정 | Master's course, Dept. of Fashion Product Design, College of Arts, Dankook University |

+Corresponding author : Kim, Hyun Joo | harriettekim@gmail.com

Key words : Academic dress, academic costume, UI(University Identity), Dankook University

Summary

Academic dress is a formal academical clothing for those who hold a status of academic degree, entitling them the authority and the responsibility of the degree and the society. It is also used as a communication tool to express the identity, tradition, and the future of universities. Thus, academic dresses are effective visual mediums that symbolize the school's traditions, academic authorities, and status.

UI(University Identity) is the expression or the visual elements of a university, which is crucial in enhancing the value of university brand. In modern society, universities are starting to shift their interests in establishing brands and creating their own UI. It is an intention to transform the university brand images according to the modern-day trends by consolidating the school symbols. As universities

worldwide are becoming more brand-based, Dankook University, also, has managed to keep its own unique visual images based pride and dignity.

Thus, this research and development of academic dress with UI for Dankook University aims in the development of academic dress as a cultural symbolic tool that contains the spirit of Dankook University.

For the study, various design elements(color and variations, logotype, symbol mark, etc.), that express the roles and the visions of Dankook University, were applied as colors and details of the academic dress designs. In addition, the three academic designs that were suitable for the purpose of the study were developed into samples. Through the study, one wishes the academic dress to further develop as a symbolic expression of Dankook University's identity and furthermore as a tool of communication and promotion of the university.



[Fig. 1] Final result

1. Introduction

Today, establishment of identities through the expression of visual images are resurfaced in many ways in various fields. Among the many elements of visual representations, costumes are the closest tools in relation to human beings. Thus, symbolic visualizations and identities of the nation, the people, and the culture could be expressed through the costume's colors, materials, silhouette, and details. Therefore, costumes have been frequently used as symbolic tools of visual communication mechanisms. Academic dress, especially, is a formal dress intended to be worn for a certain group of people; therefore, it is a strong medium in representing a university's identity.

Most of the universities in Korea, including Dankook University, currently use academic dresses originated from the United States of America. However, in recent years, the importance of image management has been emphasized as a way of advertising a university's image and identity; thus, introduction of UI(University Identity) strategy that presents the university's overall image subjectively and consistently is essential.

Therefore, this study focuses on enhancing Dankook University's UI(University Identity) by consistently presenting the unique qualities of Dankook University and by developing academic dresses that can be a medium of identity.

2. General study of academic dress 2-1. Definition of academic dress

Graduation is the process of completing a certain course of education or curriculum, whereas in universities, academic achievements are distinguished by the bachelor's, master's, and the doctor's degree. Graduation ceremony is a formal event for the graduates, where they are obligated to wear the traditional and symbolic graduation robes. In other words, academic dress is a ceremonial dress that represents authority and formality¹).

Academic dress is formally known as an academical clothing that contains hoods of many colors that each represent the different fields of education and that defines the authority and the ownership of knowledge through the distinguishing of the design and materials based on the different degrees of education. In content, academic dress contains the university's traditions and history, academic achievements, social status, and other responsibilities. Furthermore, academic dress metaphysically symbolizes the courage to preserve freedom of exploration and tolerating different opinions while keeping one's subjectivity.

Today, most of the academic dresses of the West and South Korea can be rooted back to the western attires of the Medieval period. Originally containing the meaning of religious authority and social respect for holy orders, these formal attires were later settled in universities as one of the virtues of the clergies²).

2-2. Composition of academic dress

An academic dress is composed of a gown, a hood, and a cap.

(1) Gown

Academic gowns can be easily distinguished by its sleeves. Gowns for the bachelor's degree contains pointed sleeves with closures such as zippers on the center and fine pleats under the shoulder yoke to give a sense of fullness and structure.

Academic gowns for the master's degree traditionally contains sleeves with arc-shaped front and oblong rear that hangs down to the knee; however, nowadays, master's gowns are starting to become more similar in shape to bachelor's gowns.

Most academic gowns for the bachelor's and the master's degrees are untrimmed. However, for the doctor's degree, panels of two long trimmings are placed on the center-front of the gown, and three stripes of velvet bars are applied across the sleeves. The colors of the bars and the hoods indicate the field of education to which the degree pertains, and the fields of education differ according to countries and schools.

Most academic gowns are black in color, but the colors can be changed within the allowable range.



(2) Hood

The hood is a draped piece of fabric that hangs down from the back of the neck. The hood is a very significant part of the academic dress because it represents different design elements such as the various types of degrees and subjects. As for the doctor's degree, details such as lines and trimming materials are applied variously on the colors

2) Kim, Young-In. et al. (2000). Yonsei University Doctoral Graduation Attire Design, Yonsei Journal of Human Ecology, vol.14.

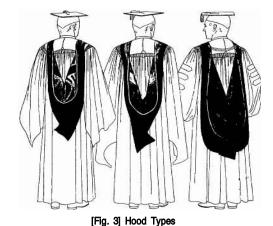
¹⁾ Hwang, Kyung-Sook. (2001). Design Development of the Academic Costumes Expressing Korean Traditional Beauty.

of the hoods.

The total length of the hood for the bachelor's degree must be 3 feet, for the master's degree 3 1/2 feet, and for the doctor's degree, 4 feet with the binding of a velvet or a velveteen, 2 inches, 3 inches, 5 inches wide for the bachelor's, master's, and doctor's degrees, respectively. Hoods should indicate the university's color and the fields of education to which the degree pertains, and the colors are sometimes presented in a variety of ways in different sections of the hoods. Moreover, many different color codes from different associations are applied in the dress codes. For example, if there are 3-inches of maize-colored trimmings on the center of the hood of an academic dress, then the field of education to which the master's degree pertains is 'agriculture' ³.

| Faculty | Color | Faculty | Color | |
|---|------------------|---------------------------|------------------------|--|
| Agriculture | Maize | Law | Purple | |
| Liberal Arts | | Library Science | | |
| Literature | White | Information Management | Lemon | |
| Humanities | - | Medicine | Green | |
| 2 | | Music | Pink | |
| Commerce | | Public Health | Salmon Pink | |
| Accountancy | Drab | Nursing | Apricot | |
| Business | | Occupational Therapy | Slate (Rhodes) blue | |
| Journalism | Crimson | Oratory | | |
| Dentistry | Lilac | Speech | Silver Gray | |
| Economics | Copper | Broadcasting | | |
| Education | Light Blue | Pharmacy | Olive Green | |
| Engineering | Orange | Philosophy | Dark Blue | |
| Science (both Social and Natural) | Golden Yellow | Theology, Divinity | Scarlet | |
| Social Work | Citron | Veterinary Science | Grey | |
| Fine Arts | Duarum | Physical Education | | |
| Architecture | Brown | Manual Therapy | Sage Green | |
| Forestry | | Physical Therapy | | |
| Environmental Studies | Russet | Public Administration | ותו ת | |
| Custoin shilit | | Public Policy | Peacock Blue | |
| Sustainability | | Foreign Service | | |

| [Table. 1 | IJ | Hood | colors | by | different | fields | of | education |
|-----------|----|------|--------|----|-----------|--------|----|-----------|
|-----------|----|------|--------|----|-----------|--------|----|-----------|



(Source:http://albrektson.dyndns.org/family/albrektson/AcademicDre ss.htm)

(3) Cap

As shown below on [Table. 2], there are many types of caps, but the 4-angled motarboard caps are the most common type of academic caps. Other than the 4-angled caps, there are also 6 and 8-angled caps and even bonnet-styled academic caps. The tassel that is attached on the center of the cap should indicate the color to which the degree pertains.

[Table. 2] Cap Types



2-3. Analytical study of domestic academic dress

Like many of the systems in Korean universities, most domestic academic dresses and caps are in accordance with the customs of America. Thus, the reality is that most academic dresses are recognized only as graduation uniforms instead of mediums that represent the identity of the country or the university, and this reality proves to us the need of developing academic dresses that represent our cultural mentality. While most of the domestic universities form of academic following American dresses, Sungkyunkwang University has distinguished itself from the other universities with its Korean traditional academic dress inspired from the traditional costumes of the Joseon Dynasty⁴).

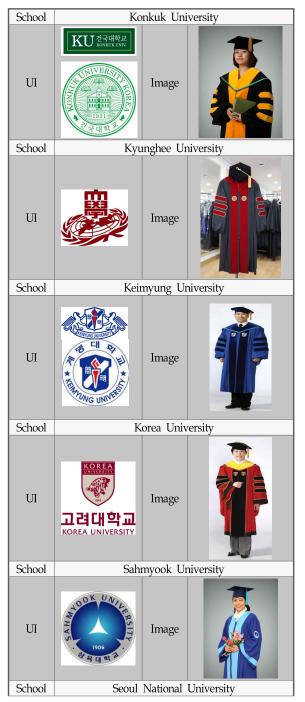
During the recent years, many universities have been putting much effort in reorganizing the schools' symbol

³⁾ Lee, Eun-Joo. (2004). The Study of Academic Costume Designs for the Embodiment of UI(University Identity) _ In the case of Chung-Ang University.

⁴⁾ Song, Sung-Eun. (2004). The Social Meaning of the Costume on Symbolism of the Academic Costume.

marks. The prime example of this case is the remodified academic dress of Seoul National University, that has been modeled after Korean traditional scholars. The remodification of Seoul National University's academic dress symbolizes a cultural movement that emphasizes the reverting of the fundamentals of Korean universities to the spirits of traditional scholars as well as declaring of identities of each universities, acting significantly as an academic dress developed with an identity of a university.

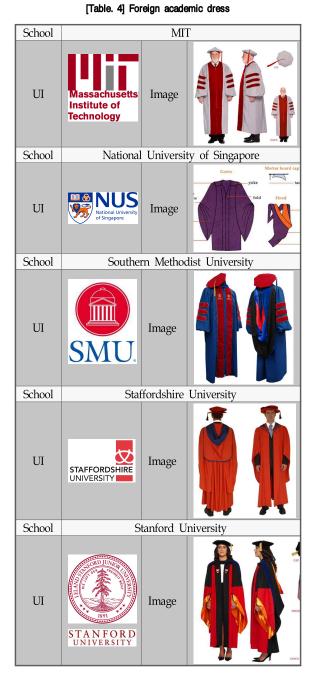
[Table. 3] Domestic academic dress





2-4. Analytical study of foreign academic dress

Academic dresses of foreign universities contain the basic elements similar to those of the domestic; however, addition of distinctive elements that identify the universities could be seen in various parts of the robes. For example, MIT and Southern Methodist University applied the school's color into the academic dress, whereas Stanford University directly identified the school's marks on the front panels of the robe. Moreover, the academic robes of National University of Mongolia contain hoods that contains half-moon-shaped trimmings inspired from the traditional costumes of the country, and other universities in countries such as England apply the country's color into the academic dresses.



3. General study of UI(University Identity) and the UI of Dankook University

3-1. Definition of UI

UI(University Identity), the combination of University

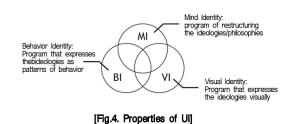
and Identity, is a strategy that consistently presents the overall image of a university. Like CI(Company Identity: Integration of company images) projects that have been conducted by several industries, UI(University Identity: Integration of university images, hereafter UI) is emerging as an important part of university development. Thus, UI is the process of constructing the university's image as a whole and increasing the brand value. As corporate brands are important, universities are starting to pay more attention in building university brands.

As a result, UI can be seen as a strategy that corresponds an organization's ideology or business spirit to the true nature of a university's environmental adaptation activities or goal attainment projects in which uplifts the university images into a symbol understood by a group of related people. Thus, the replacement of UI is being implemented as one of universities' long-term development plans, and the main reason for the replacements exist in revolutionizing the cliched images through the establishment of UI⁵.

3-2. Properties of UI

The three main elements of CI are MI(Mind Identity: the program of restructuring the ideologies of a corporate), BI(Behavior Identity: the program that expresses the ideologies of a corporate as patterns of behavior), and VI(Visual Identity: the program that expresses the ideologies of a corporate visually).

UI, also, contains the elements of mind(MI: understanding of the philosophy and goals), behavior(BI: practicing of the vision and ideologies), and face(VI: symbolizing the vision and ideologies), in which the three elements form the characteristics of public images[Fig. 4].



First, MI is the process of setting directions for a university to take part in the society, referring to the school's educational philosophy and goals.

Second, BI is the process of setting future directions for a university's basic academic philosophies, fundamentals, and goals, and thus leading the related members into

5) Lee, Eun-Joo. (2004). The Study of Academic Costume Designs for the Embodiment of UI(University Identity) _ In the case of Chung-Ang University.

understanding the process and inducing them to participate in unified academic activities. Here, the related members refer to intimate personal relations, labor-management relations, senior-junior relations, relations from academic activities, and etc.

Third, VI is correctly presenting a unified visual image of a university's symbol marks or logo to achieve the academic philosophies and goals to those involved both internally and externally. Typically, visual elements influence a university's image at much higher rate than non-visual elements. Due to a higher understanding of the visual elements through the frequency of contacts such as visual sensing and feeling, the determination of an image is much superior when compared to the non-visual elements. Especially, impressions from non-visual elements last for a short period of time whereas visual elements have the properties of long-time impressions. Therefore, the systemization of identity is possible, and the contents of VI, MI, and BI are frequently applied as visual elements in an image-making strategy.

Thus, among the three elements, MI and BI may be factors that present the image of a university, but much time is required for it to be recognized by the public; on the other hand, presentation of images through VI is mostly effective since it consists primarily of visual elements.

3-3. UI of Dankook University

The UI of Dankook University consists of the symbol mark, emblem, signature, logotype, character, and others that consistently identifies the academic philosophies and goals of Dankook University.

The identity designs used in this study is based upon the revised regulation of Dankook University, the 'Standard Guide of UI Design for Dankook University', enforced on April 6, 2007⁶).



[Fig. 5] Dankook University UI 1

(1) Emblem

The emblem is the representative symbol of the university. It consists of symbol mark in Korean language, logotype in English, and the year the school was founded. In the center of the two oval lines are the symbol mark, and the logotype in both English and Korean is arranged on the top and the bottom of the symbol mark.

By arranging the symbol mark in the center of the oval, the emblem represents the placement of the university in the center of the world and in the universe. The components are placed in blue and white background, and the ratio of 100 in width and 75 in height can be manipulated into a variety of sizes.

(2) Symbol Mark

The symbol mark is the main element of Dankook University's UI, and it symbolizes the university's future progress and the unification with the world through the dynamic rotations of light centered around the school's initials, 'DKU'. Also, the rotating orbits of DKU represent the firm academic commitments and the unification within the students.

(3) Signature

The signature of 'Dankook University' in both Korean and English languages are arranged side-by-side. The signatures are selected appropriately depending on the various types of media.

(4) Image Mark, Traditional Mark

Inspired by 'Yin Yang and the Five Elements of the Universe', the image mark is composed of five colors, yellow(\underline{B}), blue(\underline{B}), white(\underline{B}), red($\underline{\pi}$), and black($\underline{\mathbb{R}}$), which represent the role and the vision of Dankook University.



(5) Logo type

Both the English and the Korean versions of the logotype of Dankook University is composed of the 'Dankook' typeface. Since the logotype is the key element of the UI system, it must be used for printing purposes only.

(6) Symbol Character

The symbol character of Dankook University is the 'black bear'. Based on the Korean 'Dangun' myth, it symbolizes virtues of patience and diligence, the vitality of courage while retaining the spirit of the nation.

Design Standards Manual, Dankook University, established: 2006.12.28 | amendment: 2007.4.6.

(7) Character

The symbolic animal, 'black bear', is modified into a younger version <Name: Danbi (left), Danwoo(right)> to express a friendly yet progressive spirit.

4. Results and findings

4-1. Necessity of developing academic dress with UI

Design marketing is gaining much attention worldwide in corporate, academics, and in all aspects of the society. The core of design marketing is 'branding'. Thus, the world's leading companies are starting to include CDO(Chief Design Officer) along with the CEO(Chief Executive Officer) and the CFO(Chief Financial Officer), risking to increase the power of the brand. The words 'design marketing' and 'brand power' are mistaken to be used only in the industrial markets; however, universities confined in the ivory tower are also aware of the importance of brand power. In other words, educational foundations are starting to establish strategies that are as powerful as the industries'. The primary reason for why each universities are rapidly focusing on design marketing is because of the strong influence it has on the images and the competitiveness of the brand as well as the consumers and the faculties of education. Like this, integration of university images(UI·University Identity) is acting as the backbone of design marketing. By consolidating the school's insignia, logo, slogan, etc., the symbol is intended to modify the University's brand image that is suitable to the modern trend. As universities worldwide are becoming a brand of their own, Dankook University has also managed to keep their overall image with a differentiated identity from the other universities.

One of the components of the UI, the VI is the most effective in conveying visual images and costumes, in particular, which have been used historically as powerful tools of symbol and identity. Academic dress, especially, can be utilized as a medium of presenting the university's image, the authority of degrees, and the traditions of the university. Therefore, the development of creative academic dresses that contain the identities and traditions of universities can be seen as an effort in adapting to the 21st century of globalization.

4-2. Improvement and development plans for academic dress

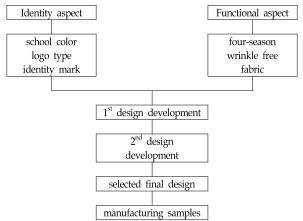
The academic dress designs for this research were focused on two aspects— identity and function.

First, in terms of identity, the UI of Dankook University was strongly applied to the designs in order to emphasize the originality of the school in comparison to its outdated, basic academic dress of the past. Thus, the aim of the design is to inspire the graduating students of Dankook University in gaining academic pride and expressing the identity and the tradition of the university.

Visual elements such as the school colors, logotype, identity mark, etc., were applied as important elements of the academic dress that can represent the school's image, allowing students to gain pride of their own school.

As for the functional aspect, the academic dresses were designed to be worn for the four seasons and created with wrinkle-free poly, acetate, and velvet materials that are conveniently manageable for the consumers.





4-3. Application of color and shape of UI for Dankook University

The colors were applied within the UI Design Standard Manual of Dankook University.



4-4. Design results [Design A]

• **Concept:** The UI of Dankook University was strongly applied to the design in order to strengthen the school's identity in comparison to the common black-colored

academic dress of the past.

The university's main color, Pantone 661C (C100+M70+K10) was used as the main color of the academic dress along with Pantone Cool Gray 3C(K20) as the sub color. Distribution effects through the bold color combinations and cutting lines made the silhouette look slimmer while the satin sleeves make the heavy-looking velvet fabrics a lighter effect. In addition, patchworks of the traditional image marks of Dankook University were applied symmetrically on the each sides of the sleeves.

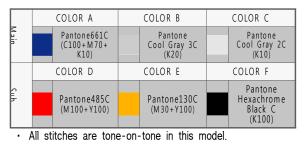
In the case of the sample work, the design was progressed in an aesthetic and an expressive course; therefore, once the design is selected for the purpose of mass production, the patchwork may be replaced by DTP(Digital Textile Printing), as it is more cost-saving than embedding embroidery works.

• Material(fabric):

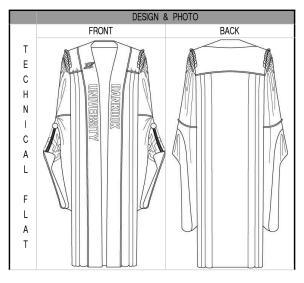
| | Material | Composition |
|---------|------------------|-------------------|
| Main | velvet (blue) | poly 95%, span 5% |
| Color 1 | velvet (gray) | poly 93%, span 7% |
| Color 2 | satin (5 colors) | poly 100% |
| Detail | satin | poly 100% |

• Material(trimmings): Covered buttons(poly 95%, span 5%), piping(satin, poly 100%), decorative strings(rayon 100%)

• COLOR



• DESIGN & PHOTO







[Design B]

• **Concept:** This design is the basic form of a gown from the traditional academic dress with a modification in the details and the color from black to Dankook University's blue(Pantone 661C) color.

Acetate was used to improve a sense of draping and manageability while reducing the weight of the existing shape. Silky and luxurious velvets were used partially in order to show the differences in the texture of the materials.

The logotype of Dankook University was embroidered at the front center to add three-dimensional design elements.

As for the overall shape of the gown, the amount of gatherings were reduced to decrease the volume and the overall bulkiness. In addition, trimmings of covered buttons were added as details in order to solve the issue of the hood flipping backwards. Also, the velvet part in the center front of the gown was decorated with silver piping.

• Material(fabric)

| | Material | Composition | | |
|---------|-----------------|-------------------|--|--|
| Main | acetate (rayon) | | | |
| Color 1 | velvet (blue) | poly 95%, span 5% | | |
| Color 2 | velvet (gray) | poly 93%, span 7% | | |
| Detail | satin | poly 100% | | |

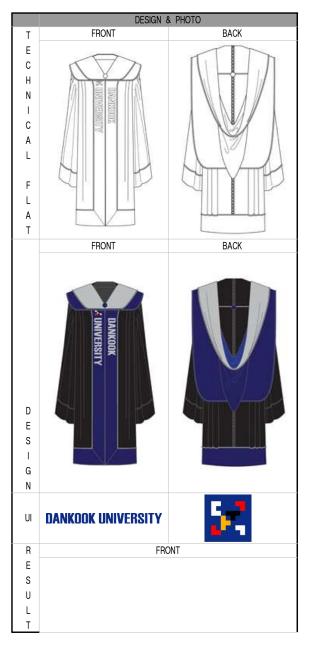
• Material (trimmings): Covered buttons(poly 95%, span 5%), piping(satin, poly 100%), decorative strings(rayon 100%)

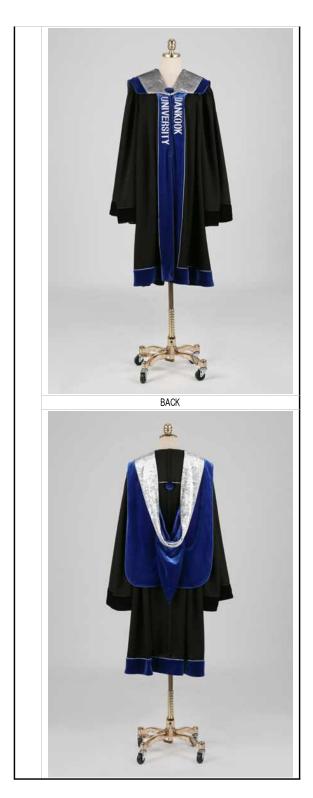
• COLOR

| | COLOR A | COLOR B | | COLOR C | |
|------|--|---------|----------------------------------|---------|-----------------------------------|
| Main | Pantone Hexachrome Black C (K100) | | Pantone Cool Gray 3C (K20) | | Pantone Cool Gray 2C (K10) |
| | COLOR D | | COLOR E | | COLOR F |
| Sint | Pantone485C (M100+Y100) | | Pantone130C (M30+Y100) | | Pantone661C (C100+M70+K 10) |

· All stitches are tone-on-tone in this model.

• DESIGN & PHOTO





[Design C]

• **Concept:** Making provision for the negative opinions on unique academic dresses, this design was developed almost similarly to the existing academic dresses with detachable hoods in accordance to the degree of education.

A wide tuck was added on the front part of the body for a comfortable, sufficient amount of space, and covered

buttons and rings were used on the hood for an aesthetic effect.

Like the Design B, acetate and velvet were both used for the design for a difference in the texture of the materials.

Slits were added on the side lines of the bodies to improve bodily activities.

• Material(fabric)

| | Material | Composition |
|---------|-----------------|-------------------|
| Main | acetate (rayon) | poly 95%, span 5% |
| Color 1 | velvet (blue) | poly 95%, span 5% |
| Color 2 | velvet (gray) | poly 93%, span 7% |
| Color 3 | velvet (black) | poly 100% |

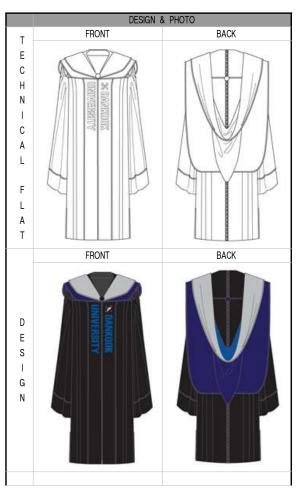
• Material (trimmings): Covered buttons(poly 95%, span 5%), piping(satin, poly 100%), Decorative strings(rayon 100%)

COLOR

| | COLOR A | COLOR B | COLOR C |
|------|--|-----------------------------------|----------------------------------|
| Main | Pantone Hexachrome Black C (K100) | Pantone661C (C100+M70+K 10) | Pantone Cool Gray 3C (K20) |
| | COLOR D | COLOR E | COLOR F |
| Siih | Pantone Cool Gray 2C (K10) | Pantone485C (M100+Y100) | Pantone130C (M 30 + Y100) |

· All stitches are tone-on-tone in this model.

• DESIGN & PHOTO





5. Conclusion

The sudden change of the educational environment in the 21st century is driving the universities to transform the school's image or develop UI(University Identity) for image integrations. UI symbolizes the university and plays a role

of delivering the image externally, and internally allows the related group of members to have the right impression of the university. The development of UI is an important factor in establishing the university's image, identification, and determination, as well as inspiring in communicating with other universities. The purpose of this study is to improve the problems of the Western-styled domestic academic dresses and develop university image suitable for the development of the globalization era and to develop academic dress as a part of the image management and the improvement of the image of Dankook University.

As the academic dress design with an application of UI and other visual elements play an important role of presenting the image of the university, the identity marks and the school colors that symbolize Dankook University were strongly applied to the designs.

For the study, various design elements(color and variations, logotype, symbol mark, etc.), that express the roles and the visions of Dankook University, were applied to the academic dress designs as colors and details, and three designs that were suitable for the purposes of the study were developed into samples.

The newly proposed design of Dankook University's academic dress was developed as a sample without the evaluation of school's students and faculties, therefore is limited with insufficient evaluations. Thus, the preferred designs of faculties and students must be comparatively analyzed for a follow-up study in the future.

Reference

• Hwang, Kyung-Sook. (2001). Design Development of the Academic Costumes Expressing Korean Traditional Beauty.

• Kim, Young-In. et al. (2000). Yonsei University Doctoral Graduation Attire Design, Yonsei Journal of Human Ecology, vol.14.

• Lee, Eun-Joo. (2004). The Study of Academic Costume Designs for the Embodiment of UI(University Identity) _ In the case of Chung-Ang University.

• Song, Sung-Eun. (2004). The Social Meaning of the Costume on Symbolism of the Academic Costume.

• Data 98-3: Design Standards Manual, Dankook University, establish: 2006.12..28 | amendment: 2007.4.6.

Web-site

- http://albrektson.dyndns.org
- http://www.herffjones.com
- http://www.gownrental.co.kr