Journal of Creativity Student
http://journal.unnes.ac.id/journals/jcs

The Feasibility of "Scanara" Ready-to-Wear Clothing with QR Code Technology

Neny Novitasari[1], Sita Nurmasitah[2]*

[1]Universitas Negeri Semarang, Indonesia, https://orcid.org/0009-0006-9393-7207
[2]Universitas Negeri Semarang, Indonesia, https://orcid.org/0000-0001-8621-789X

*Corresponding Author: sita_nurmasitah@mail.unnes.ac.id

Abstract
The development of digital technology has driven innovations in the fashion industry, including the integration of Quick Response (QR) codes into clothing products as an interactive information medium. This study aims to determine the feasibility of the design and products of the "Scanara" Ready-to-Wear Fashion, as well as the feasibility of QR Code media with embroidery techniques applied as a means of delivering digital information. The research method employs a descriptive percentage approach, utilizing an assessment instrument compiled based on theoretical studies related to fashion design, construction, aesthetics, comfort, and interactive media. The assessment was conducted by six experts, comprising three fashion experts and three media experts. Data were analyzed using quantitative descriptive techniques by calculating the feasibility percentage based on the obtained score and the maximum score. The results showed that the "Scanara" ready-to-wear fashion obtained a feasibility percentage of 82.5% and was categorized as "Very Feasible". Meanwhile, the QR Code media achieved a feasibility score of 96.25% with the category of "Very Feasible". These Findings indicate that the integration of QR Code technology with embroidery techniques not only improves the informative and aesthetic functions of fashion but also supports the development of modern, interactive, and adaptive fashion products. Thus, the developed fashion and digital media are declared very feasible for use, production, and further development.

Keywords: Feasibility, ready-to-wear, QR Code

INTRODUCTION

As time progresses, technology plays an increasingly important role and has become an integral part of modern human life in the 21st century. Technology does not stand alone, but is integrated into various disciplines, bringing significant changes to the characteristics and development direction of the fields in which it is applied[1]. The roots of technological development can be traced back to the 1990s, when globalization began to have a profound impact on various sectors of life. This period was marked by rapid advances in information technology, telecommunications, and transportation, driving changes in people's thinking patterns and behavior toward a global culture. One impact of the globalization phenomenon is the emergence of digital technology, which is now being utilized by the Indonesian fashion industry[2].

One form of technology application in the fashion industry is the use of Quick Response Code, or QR Code. This two-dimensional code can contain digital information and be accessed quickly and

[1] Elif Buğra Kuzu Demir et al., "A challenge for higher education: Wearable technology for fashion design departments," *World Journal on Educational Technology: Current Issues* 8, no. 1 (2016): 65–73, https://doi.org/10.18844/wjet.v8i1.503.
[2] Winwin Wiana, "Dampak Budaya Digital dalam Proses Perancangan Busana," *ITB Journal of Visual Art and Design* 2, no. 3 (2008): 261 270-270, https://doi.org/10.5614/itbj.vad.2008.2.3.4.

easily[3]. This technology can be easily scanned using digital devices, such as smartphones or tablets equipped with a camera. Quick Response Code (QR Code) was integrated into "Scanara" ready-to-wear clothing. Ready-to-wear clothing is a rapidly growing fashion category, driven by its practicality and comfort, which makes it highly sought after by the younger generation, particularly Generation Z[4]. This generation grew up in a digital environment and has a strong affinity for internet technology and social media. They tend to prefer products that are practical, instant, and able to emphasize their identity[5].

The connection between digital consumer needs and technological development is the basis for the development of the ready-to-wear clothing product “Scanara". This product is designed as a smart garment that integrates a QR Code as a digital means of conveying information. By scanning the QR Code, users can access information about the philosophy and meaning of batik motifs, the materials used, and the clothing manufacturing process. This integration not only makes clothing more informative and interactive but also supports product transparency and strengthens the cultural value of contemporary fashion[6].

Previous research has shown that QR codes have been utilized in the development of fashion products. One example is research on the “Baju Kurung Basiba Songket Silungkang”, which uses QR Code on Direct-to-Film (DTF) sticker labels to display information about the clothing's philosophy, motifs, patterns, and manufacturing process. The use of this technology is also considered capable of supporting digital promotion and enhancing the competitiveness of local products in the era of technology-driven industries[7]. Another study by Mardika developed Balinese Folklore Wear. This educational ready-to-wear clothing line integrates QR codes through a salon technique on a t-shirt to display a video of Balinese folk tales[8]. The results of this study demonstrated an increase in children's knowledge of local culture, emphasizing the potential of QR Codes as an interactive medium for preserving local culture.

Unlike previous research, which generally implemented QR Codes through screen printing or DTF techniques, the "Scanara" ready-to-wear clothing line presents an innovation by integrating QR Codes directly into the clothing design using embroidery techniques. Embroidery techniques offer advantages in terms of washability, material strength, and high aesthetic value[9]. According to Pratiwi & Yuningsih, embroidery can highlight the beauty of clothing through the artistic composition of color, shape, texture, and thread[10]. Therefore, the application of embroidery techniques to QR codes not only enhances durability and aesthetics but also strengthens the visual character of clothing that combines elements of information technology with the richness of textile craftsmanship.

Based on the description, this study was conducted to determine the feasibility of the design and product of ready-to-wear clothing "Scanara" as well as the feasibility of embroidery-based QR Code media as a means of delivering digital information that is informative, aesthetic, and relevant to the needs of modern consumers, especially Generation Z.

---

[3] Astrie Qonita Ayunda, “Penerapan Label Quick Response Code (QR Code) Pada Produk Baju Kurung Basiba Songket Silungkang Sebagai Media Informasi Produk Pada Era Industri 4.0,” 2024, 1–7, http://localhost:8080/jspui/handle/123456789/1524.

[4] Marini Yunita Tanzil et al., “A Study Of Academic And Industry Ready-To-Wear Fashion Product Collaboration Based On Design Thinking Method,” *Idealog: Ide dan Dialog Desain Indonesia* 6, no. 2 (2021): 135–49, https://doi.org/10.25124/idealog.v6i2.4281.

[5] Sri Wening, Putu Diah, dan Ari Kusumadewi, “Tren Berkain Generasi Z : Peluang Pengembangan Industri,” *Prosiding Pendidikan Teknik Tata Boga Busana FT UNY* 18, no. 1 (2021): 2–3, https://journal.uny.ac.id/index.php/ptbb/article/view/68011.

[6] Bassant Sherif Abd Elaziz Mustafa, Shereen Sayed Mohamed, and Nashwa Mostafa Hafez Professor, "The Aesthetical Impacts of Quick Response (QR) Codes in Apparel Design to Revitalize Handcrafts," *International Design Journal* 15, no. 1 (2025): 385–409, https://doi.org/10.21608/idj.2025.395724.

[7] Ayunda, “Penerapan Label Quick Response Code (QR Code) Pada Produk Baju Kurung Basiba Songket Silungkang Sebagai Media Informasi Produk Pada Era Industri 4.0.”

[8] I K Mardika et al., “Balinese Folklore Wear: Pengenalan Cerita Rakyat Bali Pada Anak Usia Dini Melalui Inovasi T-Shirt Berbasis QR Code Guna Mempertahankan Budaya Lokal Di Era Globalisasi,” *Pekan Ilmiah Pelajar*, 2024, 372–90, https://e-journal.unmas.ac.id/index.php/pilar/article/view/8709/6763.

[9] Ewa Skrzetuska, Paulina Szablewska, and Aleksander Patalas, "Manufacture and Analysis of a Textile Sensor Response to Chemical Stimulus Using Printing Techniques and Embroidery for Health Protection," *Sustainability (Switzerland)* 16, no. 22 (2024), https://doi.org/10.3390/su16229702.

[10] Dinar Octa Pratiwi dan Sari Yuningsih, “Perancangan Busana Ready To Wear Menggunakan Teknik Bordir Dengan Inspirasi Motif Benang Bintik,” *Moda* 4, no. 2 (2022), https://doi.org/10.37715/moda.v4i2.3161.

METHOD

The research method used in this study is descriptive statistics. Data collection was conducted using a feasibility assessment instrument compiled based on theoretical studies as the primary foundation. Relevant theories, including those related to fashion design, construction, aesthetics, function, and comfort, as well as theories of interactive media and QR Code technology, were utilized to inform the formulation of statements and indicators in the assessment instrument. The instrument was responded to by six experts selected based on their respective fields of expertise.

Three fashion experts, comprising Dwi Putri Asih, S.Pd., M.Pd., Maria Krisnawati, S.Pd., M.Sn., and Risa Maharani, were chosen due to their competencies in fashion design, construction techniques, and fashion product development. Three media experts consisting of Godham Eko Saputro, S.Sn., M.Ds., Rizky Ajie Aprilianto, S.Pd., M.Eng., and Septian Eko Prasetya, S.Pd., M.Eng., who were chosen because they have expertise in the fields of information technology, digital media design, and the application of interactive technology including QR Code.

Data obtained from the six experts was analyzed using descriptive percentage analysis techniques. The analysis was performed by summing the assessment scores given by each expert across all indicators and then comparing the results to the maximum possible score. The results were converted into a percentage to describe the product's feasibility level quantitatively. The feasibility percentage was calculated using the following formula.

$$P = \frac{Skor\ Diperoleh}{Skor\ Maksimal}\ x\ 100\%$$

The formula refers to Sugiyono's opinion in "Educational Research Methods: Quantitative, Qualitative, and R&D Approaches", which explains that quantitative descriptive analysis is used to calculate averages, percentages, and determine feasibility categories in development research (R&D)[11]. To interpret the feasibility percentage, the category classification proposed by Arikunto in "The Practical Approach Research Procedure" is used[12]. The feasibility category classification is presented in the following table.

Table 1. Product Feasibility Classification

Percentage	Category
81% - 100%	Very Feasible
61% - 80%	Feasible
41% - 60%	Quite Decent
21% - 40%	Less Than Feasible
0% - 20%	Not Feasible

RESULTS AND DISCUSSION

This section presents the results of research on the feasibility of clothing and QR Code media in "Scanara" ready-to-wear clothing, based on expert assessments. The analysis is presented concisely and clearly, highlighting key findings and comparisons with previous research.

Clothing Feasibility

The clothing feasibility assessment was conducted to determine the extent to which the ready-to-wear clothing "Scanara" meets the design, aesthetic, construction, function, and innovation standards required in the development of modern fashion products. This feasibility was assessed by three experts using an instrument that covered aspects of design, proportion, construction, aesthetics, and the integration of QR Code technology as part of the "Techno Batik" concept. The results of this study served as the basis for determining the visual and technical quality of the clothing, as well as

[11] Sugiyono, *Metodologi Penelitian Kuantitatif, Kualitatif dan R & D*, 2020, https://digi-lib.stekom.ac.id/assets/dokumen/ebook/feb_35efe6a47227d6031a75569c2f3f39d44fe2db43_1652079047.pdf.

[12] Desti Ayu Novianti, "Pengembangan Modul Akuntansi Aset Tetap Berbasis Pendekatan Saintifik Sebagai Pendukung Implemetasi K-13 Di SMKN 2 Buduran," *Jurnal Pendidikan Akuntansi* 3 (2015): 2, https://ejournal.unesa.ac.id/index.php/jpak/article/view/13193.

assessing the product's potential for broader development within the context of the ready-to-wear fashion industry. The following is a summary of the expert assessment results presented in Table 2 below.

Table 2. Recapitulation of the Feasibility of "Scanara" Ready-to-Wear Clothing

Expert	Maximum Score	Obtained Score	Presentatiom
Expert 1	86	120	71.7%
Expert 2	106	120	88.3%
Expert 3	105	120	87.5%
Total	**297**	**360**	**82.5% (Very Feasible)**

Table 2 shows the results of the expert assessment of the feasibility of the "Scanara" ready-to-wear clothing. The summary results recorded a score of 297 out of 360, or 82.5%. Based on the feasibility criteria, this score falls into the "Very Feasible" category. This means that the three experts gave excellent ratings for design, proportion, construction, aesthetic, innovation, and feasibility of the clothing concept. These findings indicate that the "Scanara" clothing meets the standards of feasibility as assessed by the instrument used in the study.

The ready-to-wear "Scanara" fashion achieved a feasibility percentage of 82.5%, indicating that this fashion has strong visual and technical qualities. In more detail, experts gave high scores on the expectations of color harmony, silhouette feasibility, design balance, and the accuracy of proportions between clothing parts. These elements confirm that "Scanara" can display a modern and sporty casual character, similar to the "Techno Batik" concept, which emphasizes the simplicity of lines, visual dynamics, and flexibility of movement[13]. The following image (1) shows the design of the ready-to-wear fashion brand "Scanara".

Figure 1. Ready-to-Wear Fashion Design "Scanara"

The construction aspect also received excellent ratings, particularly for the neatness of stitching, the accuracy of seaming technique, the precision of pattern joints, and finishing. Neat construction and feasibility are important characteristics of ready-to-wear clothing because they relate to wearer comfort, durability, and production feasibility. This finding aligns with research confirming that construction precision directly influences the physical quality of clothing[14]. The following image 2 shows the physical appearance of the ready-to-wear "Scanara" clothing.

[13] Luki Nur Aidah dan Ratna Suhartini, "Analisis Hiasan Bordir Tiga Negara Ditinjau Dari Aspek Desain Dan Teknik," *Ejournal.Unesa.Ac.Id* 10 (2021): 26–37, https://doi.org/https://doi.org/10.26740/jurnal-online-tata-busana.v10i3.42977.

[14] Anisa Rika Tejaningrum dan Cucu Ruhidawati, "Aplikasi Bunga Peony Teknik Bordir pada Busana Kreasi dengan Gaya Karakter Peri Elina," *JBSI: Jurnal Bahasa dan Sastra Indonesia* 4, no. 02 (2024): 76–88, https://doi.org/10.47709/jbsi.v4i02.5025.

Figure 2. Ready-to-Wear “Scanara”

Furthermore, high scores on aesthetics and innovation demonstrate the successful integration of the embroidered QR Code as a fashion design element. QR Code not only serves as a digital information storage medium but also as a visual element that integrates seamlessly with the design. The embroidery technique creates an aesthetically pleasing embossed texture, is more durable than printing, and enhances the visual value of clothing[15]. This aligns with research demonstrating that embroidery can enrich the surface structure of textiles and enhance the character of the design.

The innovative application of QR Code embroidery on “Scanara” demonstrates a significant advancement in the integration of digital technology with textile crafts. Several studies in Indonesia have shown that embroidery techniques function not only as decoration but also as a supporting visual identity for clothing. The ability of embroidery to be applied to various types of clothing, both creative and formal, demonstrates the flexibility of this technique and supports its application as an aesthetic and durable sign medium[16]. Thus, the QR Code embroidery on “Scanara" clothing is not only visually appealing but also practical from a functional and technical perspective.

The research confirms that “Scanara” ready-to-wear clothing is highly suitable for development as a modern, technology-based fashion product. The combination of proportional design, neat construction, and innovative QR Code technology, combined with embroidery techniques, produces clothing that has high aesthetic, informative, and commercial value. The integration of digital technology and textile crafts demonstrates the potential for developing adaptive fashion products that meet the needs of aesthetics, functionality, and innovation in today's fashion industry.

Media Feasibility

The feasibility assessment of the QR Code media on the ready-to-wear clothing “Scanara" was conducted to measure the effectiveness, readability, durability, and visual quality of the QR Code integrated into the clothing design. This media not only functions as a digital information medium, but also as an aesthetic element that supports the "Techno Batik" concept. Therefore, expert assessment is necessary to ensure that the QR Code can be scanned effectively, has sufficient contrast, and remains safe and stable when applied using embroidery techniques. The following is an image of the QR Code applied to the ready-to-wear clothing "Scanara”.

[15] Romadhona Chusna Tsani, “Textile Surface Design On Lace Using 3-Dimensional Embroidery Technique,” *Corak* 12, no. 1 (2023): 85–92, https://doi.org/10.24821/corak.v12i1.7790.

[16] Imranul Islam et al., “Innovative Solutions for Sustainable Fashion : QR Code - Driven Pre - Consumer Waste Sorting in Garment Manufacturing,” 2025, https://link.springer.com/article/10.1007/s42824-025-00196-3.

Figure 3. QR Code for Ready-to-Wear Clothing “Scanara”

The results of the expert assessment were then summarized and presented in Table 3 below.

Table 3. Recapitulation of the Feasibility of Ready-to-Wear Fashion Media “Scanara”

Expert	Maximum Score	Obtained Score	Presentation
Expert 1	78	80	97.5%
Expert 2	76	80	95.0%
Expert 3	77	80	96.3%
Total	**231**	**240**	**96.25% (Very Feasible)**

Table 2 presents the results of the expert assessment of the suitability of QR Code media for the "Scanara" ready-to-wear clothing. The score obtained was 231 out of 240, with a percentage of 96.25%, making it categorized as "Very Feasible". This assessment indicates that the QR Code is considered very good in terms of readability and display quality: placement, information security, and its durability against various digital media on clothing.

The QR Code media on the “Scanara" clothing was declared highly suitable, as indicated by a suitability percentage of 96.25%, representing the quality of the digital media that is stable, functional, and safe for use on clothing. The high readability rating indicates that the QR Code can be scanned quickly and accurately using various devices. This finding aligns with research confirming that clear, proportional, and high-contrast QR Code modules play a crucial role in maintaining scanning accuracy, even when their appearance is artistically modified[17]. The following image displays the results of scanning a QR Code on a ready-to-wear clothing item, "Scanara", which features an informative video related to the product.

Figure 4. QR Code Scan Results

The placement of the QR Code on the back is considered appropriate from both visual and physical perspectives, as it does not interfere with the clothing's aesthetic and is easily accessible during the scanning process. These results are supported by research showing that the QR Code can remain legible when applied to textured or three-dimensional surfaces, as long as the module structure

[17] Yetti Yuniati dan Anisa Ulya Darajat, “Pemanfaatan QR-Code untuk Akses Informasi Digital Koleksi Museum Ruwa Jurai Lampung,” *Jurnal Abdimas Mandiri* 8, no. 3 (2024): 409–15, https://doi.org/https://doi.org/10.36982/jam.v8i3.4657.

and contrast are maintained[18]. Expert assessments also confirm that the QR Code on “Scanara” is resistant to friction and long-term use, thus meeting the eligibility standards for digital media on textiles.

The most prominent element of this innovation is the use of embroidery as a method for creating QR codes. Embroidery offers greater durability than printed QR codes because its thread structure is resistant to damage even after repeated washing or use. This is relevant to research on the concept of textile ID, which shows that integrating digital identity into fabric can increase the durability, information stability, and sustainability of fashion products[19]. In addition, embroidery produces a more artistic and textured visual appearance, so the QR Code not only functions as a digital medium but also as an aesthetic element in fashion design.

Compared to previous research that used sticker- or print-based QR Codes, the QR Code media on "Scanara" presents an update through direct integration into the fabric surface. This is reinforced by the discovery that two-dimensional codes can be permanently applied to textiles, including through the use of laser marking techniques or other surface media, while still maintaining scan ability[20]. Thus, the embroidered QR Code applied to “Scanara” demonstrates significant innovation in the integration QR Code applied to “Scanara” demonstrates significant innovation in the integration of information technology and fashion aesthetic.

The QR Code media on “Scanara" clothing is highly suitable, meeting the standards of readability, durability, aesthetics, and information security. This media not only functions as a digital medium but also enhances the visual character of the clothing through innovative embroidery, offering both aesthetic and functional value. This demonstrates the significant potential of applying textile-based digital media in the development of interactive and highly competitive modern fashion products.

CONCLUSION

Based on the research results, the ready-to-wear clothing product "Scanara" is deemed worthy of implementation as a technology-based fashion product. The results of the assessment by fashion experts show that the design, construction, material selection, and aesthetic aspects obtained an average score of 82.5% which is included in the "Very Feasible" category. In line with that, the QR Code media with embroidery techniques integrated into the clothing also received a high assessment result from media experts, with an average score of 96.25%, which is in the "Very Fesible: category. The score includes assessments of the readability of the QR Code, durability to washing, embroidery strength, and the effectiveness of the media in conveying digital information. Thus, both the clothing and the QR Code media developed have successfully met the feasibility standards and can be declared very feasible for use, production, and further development as a fashion innovation that combines technology with modern textile aesthetics.

ACKNOWLEDGMENTS

The author would like to express her gratitude to the supervisor who provided valuable direction, guidance, and input during this research process. She also expresses his appreciation to the Coordinator of the Fashion Design Education Study Program at Universitas Negeri Semarang for the support and facilities provided during the research process.

REFERENCES

Aidah, Luki Nur, dan Ratna Suhartini. “Analisis Hiasan Bordir Tiga Negara Ditinjau Dari Aspek Desain Dan Teknik.” Ejournal.Unesa.Ac.Id 10 (2021): 26–37.

[18] Eva Nurul Candra dan Risa Mufliharsi, “Sosialisasi Penggunaan Qr Code Sebagai Upaya Pengembangan Bahan Ajar Untuk Siswa SMK,” *JPPM (Jurnal Pengabdian dan Pemberdayaan Masyarakat)* 4, no. 2 (2020): 311, https://doi.org/10.30595/jppm.v4i2.6575.

[19] Eva Rahmawati et al., “Optimalisasi Presensi Sekolah Berbasis QR Code dengan Metode Rapid Application Development,” *Computer Science (Co-Science)* 5, no. 2 (2025): 87–94, https://doi.org/10.31294/coscience.v5i2.8505.

[20] Dava Nur Kurniawan dan Irwan A. Kautsar, “Pemanfaatan QR Code untuk Transaksi pada Sistem E-Kantin Berbasis Web,” *Journal of Internet and Software Engineering* 1, no. 1 (2024): 13, https://doi.org/10.47134/pjise.v1i1.2249.

https://doi.org/https://doi.org/10.26740/jurnal-online-tata-busana.v10i3.42977.
Ayunda, Astrie Qonita. "Penerapan Label Quick Response Code (QR Code) Pada Produk Baju Kurung Basiba Songket Silungkang Sebagai Media Informasi Produk Pada Era Industri 4.0," 2024, 1–7. http://localhost:8080/jspui/handle/123456789/1524.
Candra, Eva Nurul, dan Risa Mufliharsi. "Sosialisasi Penggunaan Qr Code Sebagai Upaya Pengembangan Bahan Ajar Untuk Siswa SMK." JPPM (Jurnal Pengabdian dan Pemberdayaan Masyarakat) 4, no. 2 (2020): 311. https://doi.org/10.30595/jppm.v4i2.6575.
Demir, Elif Buğra Kuzu, Kadir Demir, Sanem Odabaşı, dan Ferhan Odabaşı. "A challenge for higher education: Wearable technology for fashion design departments." World Journal on Educational Technology: Current Issues 8, no. 1 (2016): 65–73. https://doi.org/10.18844/wjet.v8i1.503.
Islam, Imranul, Hasan Mazharul, Haq Farhad, Hitu Biswas, dan Bashar Uddin. "Innovative Solutions for Sustainable Fashion : QR Code - Driven Pre - Consumer Waste Sorting in Garment Manufacturing," 2025. https://link.springer.com/article/10.1007/s42824-025-00196-3.
Kurniawan, Dava Nur, dan Irwan A. Kautsar. "Pemanfaatan QR Code untuk Transaksi pada Sistem E-Kantin Berbasis Web." Journal of Internet and Software Engineering 1, no. 1 (2024): 13. https://doi.org/10.47134/pjise.v1i1.2249.
Mardika, I K, N I Komang Mardika Yuli, Ni Made Yuli, Ni Luh Putu Lina Kartika Putri, I Wayan MadiyaM, dan NLPLK Putri. "Balinese Folklore Wear: Pengenalan Cerita Rakyat Bali Pada Anak Usia Dini Melalui Inovasi T-Shirt Berbasis QR Code Guna Mempertahankan Budaya Lokal Di Era Globalisasi." Pekan Ilmiah Pelajar, 2024, 372–90. https://e-journal.unmas.ac.id/index.php/pilar/article/view/8709/6763.
Novianti, Desti Ayu. "Pengembangan Modul Akuntansi Aset Tetap Berbasis Pendekatan Saintifik Sebagai Pendukung Implemetasi K-13 Di SMKN 2 Buduran." Jurnal Pendidikan Akuntansi 3 (2015): 2. https://ejournal.unesa.ac.id/index.php/jpak/article/view/13193.
Pratiwi, Dinar Octa, dan Sari Yuningsih. "Perancangan Busana Ready To Wear Menggunakan Teknik Bordir Dengan Inspirasi Motif Benang Bintik." Moda 4, no. 2 (2022). https://doi.org/10.37715/moda.v4i2.3161.
Rahmawati, Eva, Herlambang Brawijaya, Doni Andriansyah, dan Elly Mufida. "Optimalisasi Presensi Sekolah Berbasis QR Code dengan Metode Rapid Application Development." Computer Science (Co-Science) 5, no. 2 (2025): 87–94. https://doi.org/10.31294/coscience.v5i2.8505.
Sherif Abd Elaziz Mustafa, Bassant, Shereen Sayed Mohamed, dan Nashwa Mostafa Hafez Professor. "The Aesthetical Impacts of Quick Response (QR) Codes in Apparel Design to Revitalize Handcrafts." International Design Journal 15, no. 1 (2025): 385–409. https://doi.org/10.21608/idj.2025.395724.
Skrzetuska, Ewa, Paulina Szablewska, dan Aleksander Patalas. "Manufacture and Analysis of a Textile Sensor Response to Chemical Stimulus Using Printing Techniques and Embroidery for Health Protection." Sustainability (Switzerland) 16, no. 22 (2024). https://doi.org/10.3390/su16229702.
Sugiyono. Metodologi Penelitian Kuantitatif, Kualitatif dan R & D, 2020. https://digi-lib.stekom.ac.id/assets/dokumen/ebook/feb_35efe6a47227d6031a75569c2f3f39d44fe2db43_1652079047.pdf.
Tanzil, Marini Yunita, Astrid Astrid, Paulina Tjandrawibawa, Yoanita Tahalele, dan Fabio Ricardo Toreh. "A Study Of Academic And Industry Ready-To-Wear Fashion Product Collaboration Based On Design Thinking Method." Idealog: Ide dan Dialog Desain Indonesia 6, no. 2 (2021): 135–49. https://doi.org/10.25124/idealog.v6i2.4281.
Tejaningrum, Anisa Rika, dan Cucu Ruhidawati. "Aplikasi Bunga Peony Teknik Bordir pada Busana Kreasi dengan Gaya Karakter Peri Elina." JBSI: Jurnal Bahasa dan Sastra Indonesia 4, no. 02 (2024): 76–88. https://doi.org/10.47709/jbsi.v4i02.5025.
Tsani, Romadhona Chusna. "Textile Surface Design On Lace Using 3-Dimensional Embroidery Technique." Corak 12, no. 1 (2023): 85–92. https://doi.org/10.24821/corak.v12i1.7790.
Wening, Sri, Putu Diah, dan Ari Kusumadewi. "Tren Berkain Generasi Z : Peluang Pengembangan Industri." Prosiding Pendidikan Teknik Tata Boga Busana FT UNY 18, no. 1 (2021): 2–3. https://journal.uny.ac.id/index.php/ptbb/article/view/68011.
Wiana, Winwin. "Dampak Budaya Digital dalam Proses Perancangan Busana." ITB Journal of Visual Art and Design 2, no. 3 (2008): 261 270-270. https://doi.org/10.5614/itbj.vad.2008.2.3.4.
Yuniati, Yetti, dan Anisa Ulya Darajat. "Pemanfaatan QR-Code untuk Akses Informasi Digital Koleksi Museum Ruwa Jurai Lampung." Jurnal Abdimas Mandiri 8, no. 3 (2024): 409–15. https://doi.org/https://doi.org/10.36982/jam.v8i3.4657.