

Designing an Alternative Typeface to Reflect the Identity of the ITS Campus

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ABSTRACT

The pervasive use of typography that lack identity, uninspiring, or generic typefaces across Institut Teknologi Sepuluh Nopember (ITS) weakens brand coherence, hinders emotional resonance, and restricts creative expression, and undermines the potential of typography to convey a distinct identity. The lack of a cohesive typographic identity further limits design options and raises copyright concerns for non-standard choices within the ITS community. This research addresses these challenges by investigating how key characteristics of the ITS campus can be identified and translated into visual features for a new typeface. We address these challenges by designing a new typeface, "ITS-Artistech" that embodies the unique character of the ITS campus. We adopted a qualitative, design-based research approach. We collected and analyzed various existing typeface application in ITS promotional materials and explores user motivations and font-licensing awareness through surveys. We extracted key characteristics of the campus identity through comprehensive data analysis, perceptual studies, and iterative design processes. These characteristics were then synthesized and embedded within the anatomy of the Latin alphabet, resulting in a typeface named "ITS-Artistech" that reflects modernity, dynamism, a technology-inspired, industrial aesthetic, and creative spirit. "ITS-Artistech" has the potential to strengthen brand identity, foster emotional connections, and empower diverse communication within the ITS community. This digital resource not only enriches the visual language of the campus but also contributes to the evolving field of typography reflecting institutional identity, inspiring future designs that celebrate unique campus voices. Beyond its practical application, this research demonstrates the transformative power of typeface design to express and celebrate distinct institutional identities.

Keywords: typeface design, typography, campus identity, perceptual studies

INTRODUCTION

Institut Teknologi Sepuluh Nopember (ITS) in Surabaya, Indonesia, maintains a comprehensive visual identity system and graphic guide. This brand guideline establishes official standards for applying the university's visual identity across various media, including Friz Quadrata Std (designed by Ernst Friz) as the signature typeface and Work Sans Family for body text in logos and symbols (see Figure 1). This applies particularly to unit logos and symbols, such as those of faculties and departments (ITS Public Relations/Humas ITS, 2021). However, the guide lacks clear recommendations for other design contexts, such as environmental signage and event promotional media headlines. Notably, no dedicated typeface specifically designed for these purposes has been created within the ITS academic community.



Figure 1. Friz Quadrata Std as a signature font for ITS visual identity, and Work Sans Family, as typeface for body text.

Source: brand guidelines ITS, by Humas ITS, 2021

The impact, based on observations, particularly of printed and outdoor promotional materials on the ITS campus or shared through social media, reveal a tendency towards generic or uninspired typeface choices, especially used in headline, without paying attention to or exploring appropriateness and suitability (see Figure 2). These choices often fail to consider the theme of the event or the representation of the ITS campus itself. Similarly, environmental 3D typographic signs in landmarks like the ITS Roundabout, ITS globe, library, rectorate building, ITS Global Kampong, and ITS robotics center frequently rely on the neutral personality in Sans Serif typeface (see Figure 3). While this popular typeface

possesses inherent character, it could be further enhanced and made more representative of ITS through a bespoke typeface incorporating distinct university elements. Ultimately, the selection of a typeface transcends mere visual preference; it becomes a pivotal element in constructing the narrative and emotional tenor of a communication piece. Typefaces carry the potential to convey semantic meaning and evoke specific emotions in the audience. Consequently, inappropriate typeface choices can undermine the intended message and disconnect from the target audience. Conversely, a harmonious alignment between typeface and meaning strengthens the connection and enhances the overall communication experience.

The generic use of typefaces mutes the vibrant voice of the ITS campus, masking its distinct identity within a sea of uninspired fonts. Additionally, the absence of ITS-specific typefaces restricts designers' creative freedom and compels them to rely on generic options, oftentimes raising concerns about copyright infringement for non-standard choices. Generic typefaces fail to capitalize on the evocative power of typography to engage audiences and express the unique character of ITS. Thus, this research aims to address these challenges by designing a new typeface that embodies the essence of ITS. This bespoke typeface will be: 1) reflecting ITS character: infused with unique visual elements and inherent personality that resonate with the university's identity; 2) copyright-free: freely available to the ITS community, fostering brand promotion and a stronger sense of collective identity; and 3) Tailored to context: adaptable to various communication contexts, from impactful headlines in promotional media to program materials and artistic expression. It is important to emphasize that this research does not intend to design a typeface that replaces the existing logotype letterform or signature type of the ITS visual identity. The graphic standard guidelines have already established typographic elements within the logo, and This project aims to design a typeface that is a complement and option for wider communication needs.

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 DESIGNING AN ALTERNATIVE TYPEFACE TO REFLECT
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Figure 2. Communication materials disseminated through social media channels or printed scenic elements adorning stages.
 Source: author's documentation, 2023

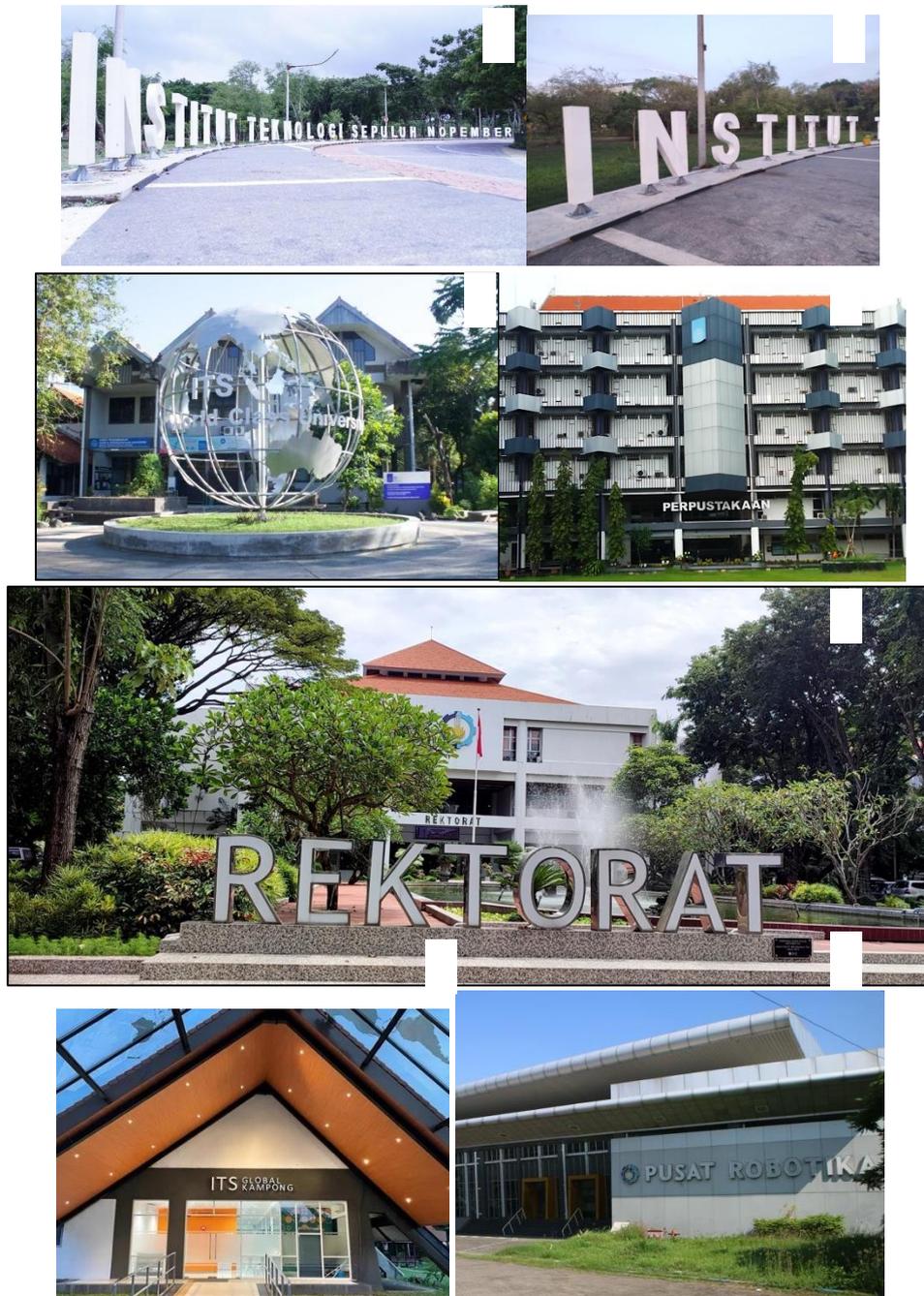


Figure 3. Environmental 3D sign typography on several landmarks and buildings at the ITS campus: (1) The environment around the ITS Roundabout, (2) the ITS globe, (3) the ITS library, (4) the ITS rectorate building, (5) the ITS Global Kampong, and (6) ITS robotic center.

Source: author's documentation, 2023

The significance of designing a new typeface transcends its purely utilitarian function as a visual tool. Typography embodies a potent interplay between two distinct concepts: the verbal, representing the literal meaning of words, and the visual, encompassing the typeface's form and inherent "type personality." These elements must synergistically converge to deliver impactful messages to the target audience (Meggs and Purvis, 2016). Notably, a well-designed typeface can be imbued with the unique essence of the entity it represents, manifested through its anatomical details and intrinsic character. These characteristics act as signifiers, facilitating audience identification and interpretation of the associated entity (Noordyanto, 2015; Widiatmoko et al., 2010). This interplay between visual elements and inherent connotations further engenders a specific mood or impression within the design itself, enriching the message beyond the literal (Lupton, 2014).

Beyond its communicative potential, a typeface intrinsically linked to the ITS community offers several advantages: 1) brand promotion and community Identity: a freely shared typeface can foster brand recognition and strengthen the sense of community within the ITS ecosystem; 2) communicative potential and emotional resonance: a carefully designed typeface can effectively convey semantic meaning, evoke emotions, and create a visually appealing and emotionally evocative design experience; and 3) innovation and creative expression: the design process itself can contribute to the body of knowledge on typeface design and pioneer font production within ITS.

The use of typography to reflect the character of an institution is not a novel concept. Renowned institutions like Bauhaus design school in Weimar, Germany, pioneered this approach in the early 20th century, developing typefaces that embodied their modern aesthetic. Bauhaus famous designers, such as Joost Schmidt, Herbert Bayer, or Laszlo Moholy-Nagy, believed that typography should be simple, geometric, and functional (Meggs and Purvis, 2016). They created a typeface that reflected these principles, which was used in a variety of Bauhaus publications and products to help establish the school's reputation for innovation and creativity. This Bauhaus typography became famous, along with the school it reflected. This research adopts a similar approach, aiming to design a new typeface

that captures the essence of ITS while offering a diverse range of choices for designers.

Therefore, the new typeface is intended to be one of several typography options that reflects ITS, as an alternative, rather than creating the only official typeface for the official identity, which could potentially be expanded with future designs. This would create a rich diversity of alternative choices for users, allowing them to select the typeface that is most appropriate for the specific content and context of their design. Typefaces, as defined by Spiekermann (2022), can be likened to clothing. They are selected based on their suitability for a particular context and purpose. Although they may have been originally created with a specific purpose in mind, typefaces ultimately become a matter of personal choice. When selecting a typeface, it is important to consider the visual characteristics and connotations of the typeface, as these will contribute to the overall tone and feel of the design. By carefully selecting the right typeface, designers can create works that are both visually appealing and emotionally evocative.

Overall, this research aims to address the need for thematically appropriate and diverse typography at ITS campus. The proposed new typeface will not only address inconsistencies and enhance brand coherence but also act as a valuable resource for the ITS community, fostering creative expression, and contributing to the field of typeface design.

Research goals

There are two objectives of the research as mentioned below:

1. Explore how to extract key characteristics of ITS Campus and synthesize them into key features for the creation of a new typeface.
2. Design a new typeface reflect the ITS Campus identity.

RESEARCH METHOD

The authors conducted the following methods for designing a typeface based on research:

1. Collecting data:

- a. This study examines the use of typefaces in the ITS environment and their intended purposes, with a focus on their suitability for reflecting the campus identity. Observations of various informational and promotional media revealed that display typefaces (Cullen, 2012; Samara, 2018; Sowersby, 2011; Bringhurst, 2005; Poynor, 2011) are typically used and stylized to create a unique identity for a specific entity, such as an event or campus organizer. However, some typefaces were selected without due consideration of their appropriateness or compatibility with the theme. To understand the motivations behind typeface selection, the academic community (students and faculty members) was surveyed. Results showed that they were generally unaware of the licensing status of the typefaces they used. Consequently, even though some were aware of the visual characteristics associated with certain themes (e.g., a robotics event using a typeface with geometric shapes, bold lines, sharp angles, and mechanical and sci-fi design elements), they did not pay much attention to the appropriateness and compatibility of these typefaces with their intended purpose. Additionally, ITS has official visual identity guidelines that specify predefined typefaces (Humas ITS, 2021) (Sayatman *et al*, 2020). Therefore, official documents without typographic styling were excluded from the study, as its focus was not typography as a primary graphic system of the ITS visual identity.
- b. We determined that the primary target audience of the typeface is the ITS academic community, which includes students, faculty members, and graphic designers. However, we anticipate that people outside of the campus may also appreciate and be interested in using the typeface due to its unique design characteristics. The typeface is intended for use in a variety of media, including digital and print promotional materials.

2. Analysis

a. Perceptual studies

This research adopted a qualitative approach to capture the unique identity of the ITS campus. Informed by relevant works like Larson and Carter (2014), Boer (2010), and Hunt (2012), we employed perceptual studies to delve into how individuals perceive the ITS campus's visual

language and characteristics, beyond the official profile documents. Analyzing this data allows us to identify the essence of the campus, which then serves as the foundation for synthesizing this identity into the anatomy of the Latin script, the basis for typeface design. This is crucial because effective typefaces go beyond functionality; they evoke desired emotional responses and embody the unique character of the space they represent. To this end, we conducted interviews with 200 participants, including students, lecturers, and members of the wider community, to understand their perceptions of the ITS identity.

b. Extracting the essence: from key features to type personality

The next analysis involved refining the key characteristics gathered from the perceptual studies, ITS profile documents, and campus visual data. These were grouped into thematic keywords and subsequently condensed into a single, powerful sentence embodying the core visual connotation, called type personality (Strizver, 2006). This pivotal sentence serves as the guiding principle for the typeface design, ensuring its visual characteristics resonate with the desired connotative impression. In essence, this summary extracts the core look and feel of the typeface, often referred to as its key features of the typeface. This methodology aligns with Noordyanto's (2015) approach of analyzing an entity's identity to translate its defining elements into a newly designed typeface. As Widiatmoko et al. (2010) argue, this process essentially breathes life into the Latin script, imbuing it with the unique spirit of the entity it represents.

3. Design development

- a. We conducted a comprehensive review of existing typefaces with similar styles to avoid plagiarism and create a unique and distinctive new typeface. We analyzed their design elements, such as anatomy, proportions, and spacing, to identify key features that we could incorporate into our own typeface while maintaining originality. These distinctive characteristics are evident in the typeface we designed (Table 2).

- b. Our approach to typeface design is informed by ITS profile and perceptual studies of the ITS campus identity. We combine key characteristics and images from the campus identity to create a unique typeface anatomy and personality. The basic letters (A-Z, a-z, numeral, and punctuation) are experimental creation and do not take inspiration from preexisting letters. Instead, they are synthesized directly from sketches.
- c. Computational methods can be used to convert manually sketched alphabets into digital typefaces (vector-based images) that are optimized for legibility, readability, and unity. We also conducted matrix measurements and optical adjustments on each character. We fixed the kerning problem manually through the font generator. At the end, these digital typefaces can then be converted into installable fonts that can be used by users.
- d. We conducted a series of evaluations (authors team and user testing) to assess our new digital typeface, including:
 - 1) Legibility tests were conducted to measure how easily and accurately each character (including uppercase, lowercase, and punctuation) can be recognized, and to ensure that the characters have distinct shapes (Harkins, 2010).
 - 2) Readability tests were conducted to measure how well people can understand the type set in sentences or longer passages. This information can be used to design typefaces that are more readable and easier to comprehend.
 - 3) Unity tests were conducted to measure how well the uniform appearance of the typeface's anatomy reflect the unique characteristics and identity of the campus (Samara, 2006).
- e. Based on user and team feedback, we made minor changes to the typeface and retested it. This iterative refinement process is essential for creating a typeface that is both functional and aesthetically pleasing.
- f. We named the new typeface: ITS-Artistech. A more detailed explanation of this decision is provided in the Result and Discussion section.

RESULT AND DISCUSSION

Design development

Description and analysis	
ITS Profile (characteristics/ identity)	<ol style="list-style-type: none"> 1. The technical wheel is part of the ITS logo and emblem, which contains the meaning of the holy struggle of the nation's heroes to guarantee hope to the nation's people who have noble morals in science, technology, and art. The basis of this technical wheel is used in various identities of associations, communities, monuments, signs, and others. 2. The typographic elements of the ITS logo: the text "ITS" is in a bold, artistic, and simple style, and contains the meaning of experience in the fields of science, technology, and art, the strength of history of ITS that is increasingly competitive. 3. To be a world-class university that contributes to national independence and is a reference in education, research, community service, and innovation development, especially those that support industry and the maritime sector. 4. Mission: To contribute to the field of science and technology for the welfare of society through education, research, community service, and management that is based on information and communication technology. 5. ITS has innovation-based units/institutions, technology management, and commercialization of technology and design products (creative industries), such as the ITS Innovation & Science Techno Park Directorate (Direktorat Inovasi & Kawasan Sains Teknologi ITS) and PT. ITS Tekno Sains; 6. Science Techno Park divide in 4 clusters: 1) Automotive; 2) ICT and Robotics; 3) Maritime; and 4) Creative Design (Science and Technology Center of Excellence: creative Design); 7. ITS research is typically forward-looking, contemporary, and current;

	<ol style="list-style-type: none">8. ITS is actively pursuing national and international rankings and reputation. ITS release of its thematic jargon and logo for 2023: ITS reach for the Top.9. The slogan for the 63rd Dies Natalis of Institut Teknologi Sepuluh Nopember (ITS), "ITS Bergerak," can be interpreted as "moving forward" and "progressing."10. ITS Smart Eco Campus is a program that was established to promote the development of a green campus, primarily through socio-engineering.11. The new ITS motto, "Advancing Humanity," (released in 2021) is to cultivate a new spirit in creating innovation through technology and knowledge for society.12. ITS has 6 faculties with a foundation in science, engineering/technology, and industrial, namely the Faculty of Science and Data Analytics (F-Scientics), Faculty of Marine Technology (F-Martech), Faculty of Industrial Technology and Systems Engineering (F-Indsys), Faculty of Intelligent Electrical and Informatics Technology (F-Electics), Faculty of Civil, Planning, and Geo Engineering (F-CIVPLAN), Faculty of Vocational (F-Vocation),13. ITS also has faculties with a foundation in social and cultural sciences and design, namely the Faculty of Creative Design and Digital Business (F-Creabiz); and a foundation in medical sciences, namely the Faculty of Medicine and Health.14. ITS has achieved a significant number of achievements in the fields of science, technology, and social and cultural, such as the 2022 Habibie Prize in the field of culture from the National Research and Innovation Agency (BRIN) and Yayasan SDM untuk IPTEK (former president Habibie's foundation), which was awarded to Naufan Noordyanto, lecturer at Department of VCD.15. ITS is deeply rooted in Surabaya's culture and historical ties: the background of the name 10 November; released the slogan ITS CUK (smart, resilient, creative) until around 2008, and replaced it with ITS CAK (smart, trustworthy, creative) with the
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	original word "cuk" and "cak" are usually spoken by Surabaya residents.
Perception of ITS by the communities outside campus	<ol style="list-style-type: none"> 1. Hi-tech campus: ITS is a leading technology university in Indonesia; 2. Technical/technological/science-based campus; 3. Favorite and reputable campus in East Java; 4. Excellent performance and innovation in the field of robotics, the automotive industry, maritime innovation; 5. Tends to reflect the typical culture of East Java or Surabaya; 6. Up-to-date with developments and many research, innovation, and cutting-edge technology schemes are available 7. Students are perceived as intelligent (on average) 8. The campus area and students seem to be divided into two: the area and students of science and engineering/technology (which are perceived as formal areas) and the area and students of design (which are perceived as informal-creative); 9. Education with high quality 10. Students follow a tight schedule to complete assignments; 11. Active and competitive; 12. Many achievements got by students and faculty members.

<p>Visual materials (support the construction of key characteristics)</p>	<div style="text-align: center;">  </div> <p>Description: (in order) ITS emblem, ITS logo, and logo of ITS Reach for the Top jargon</p> <div style="text-align: center;">  </div> <p>Description: Several landmarks in several spots on the ITS campus (for more details, see Figure 3)</p>
<p>Key characteristics (become a type personality)</p>	<p>Highlighting the repeated and representative keywords from descriptions that strongly represent characteristics and images: it glorified modernity, dynamism, technology, machines, industry, speed, and humanity (creativity) simultaneously.</p>
<p>Key features of typeface (become a visual characteristics)</p>	<p>Designed to evoke the look and feel of key characteristics include:</p> <ul style="list-style-type: none"> ● Celebration of technology-inspired and industrial aesthetic: we are fascinated by the technological advancements of their time and industrial machinery. They sought to depict the beauty and power of the machines in the typeface. But reflecting how machines have gained influence over human creativity. ● Dynamic motion: this typeface often conveyed a sense of movement and speed. We used techniques such as italic style or diagonal lines to create a feeling of motion and energy in their anatomy.

	<ul style="list-style-type: none">• Geometric shapes: we explored abstract and geometric forms, breaking down objects into their basic, angular components to represent the influence of technology and urban life in ITS campus life.• Use of Bold strokes: strong and bold used to convey energy and emotion. The combination of technology and artistic vision contributed to the development of important artistic practices on this typeface.• Minimalism and clean: embraced a minimalist aesthetic but stylizing the form influenced by technology, machine, and industrial form expression.• Universal language: it was created a universal language of art that could transcend national boundaries and communicate across cultures.• The typeface's sharp angles and straight lines evoke the look and feel of science and technology, while its soft angles and rounded lines evoke humanity and creativity.• More notched (mechanical) and angled <p>Include: Uppercase, lower case and punctuation</p>
Typeface design (synthesis outcome)	

	<p><i>abcdefghijklmnopqr stuvwxyz</i></p> <p><i>0123456789</i></p> <p><i><>/\[]{}()</i></p> <p><i>;"'~^*=-_+ .,\$!/?%@&#</i></p>
Name of the Typeface	<p>The new typeface is named "ITS-Artistech", or simply "Artistech". This name follows the usual naming convention for typefaces, which is to list the type foundry followed by the typeface name. In this case, the type foundry is ITS, and the typeface name is Artistech.</p> <p>The name Artistech is a combination of the words "artist" and "technology." This combination reflects the key characteristics or values of the ITS campus identity, which reflect science and art (creative design).</p>

Variety of application	<ol style="list-style-type: none"> 1. The typefaces can be used to create strong and memorable logos for technology, robotic, or industrial companies and other businesses that want to convey a sense of innovation and modernity. 2. Headlines and titles as a display type: the typefaces can be used to create eye-catching headlines and titles for websites, magazines, and other publications. 3. Sci-fi and fantasy designs: the typefaces can be used to create a futuristic and technological look for sci-fi and fantasy designs.
Versatility	The typefaces are a versatile and powerful tool that can be used to create a variety of modern, industrial, mechanical, robotic, but soft looks and feels. If you are looking for a typeface that is modern, futuristic, and eye-catching, then this typeface is a great option to consider.

Table 1. Analysis and design development of the typeface
Source: author's documentation

No	Typeface look	Description
1	ITS-Artistech	According to Table 1, ITS-Artistech is characterized by more notches and angles, as well as a combination of curved and straight lines. Its sharp angles and straight lines evoke the look and feel of science and technology, while its soft angles and rounded lines evoke humanity and creativity.
2	Robotic look	Often characterized by their clean, geometric lines, sharp angles, and bold strokes.

3	Industrial look	<ul style="list-style-type: none"> ● Bold and geometric forms. This gives them a strong and powerful appearance. ● Utilitarian aesthetic: Industrial look typefaces often have a utilitarian aesthetic, meaning that they are designed for function over form. This is reflected in their simple and unadorned designs. ● Inspiration from industrial materials and forms: Industrial look typefaces are often inspired by the materials and forms of industrial machinery and structures. <p>Some examples of industrial look typefaces include: DIN, Eurostile, Gotham Gill Sans, Futura, Avant Garde, Courier, Univers, Helvetica, Neue Haas Grotesk, Avenir, Source Sans Pro</p>
4	Machine look	<ul style="list-style-type: none"> ● Geometric forms ● Precise forms: The forms of machine look typefaces are very precise and well-defined. There are no rough edges or imperfections. ● Sharp angles and straight lines. This gives them a bold and edgy look. ● Uniform proportions: The proportions of machine look typefaces are often very uniform. This gives them a balanced and symmetrical look. ● Lack of ornamentation. This gives them a simple and minimalist look. <p>Some example of typeface of machine look typeface: Futura: Avant Garde: Courier: Univers; Helvetica, Avenir, Source Sans Pro, Roboto, Open Sans, Lato,</p>
5	Digital look	<ul style="list-style-type: none"> ● Pixelated forms: gives them a digital or electronic look. ● Sharp and precise forms: ● often have a bold and edgy look. This is due to their sharp forms and often high contrast. ● Lack of ornamentation. <p>Some examples of digital look typefaces include: Press Start 2P, Minecraft, Glitch, Pixelmania 8-BIT WONDER, Bitstream Vera SaCourier Prime, Liberation Mono, Menlo, Monaco, Source Code Pro</p>

6	Speed and dynamic motion	<ul style="list-style-type: none"> • Sharp angles: Speed, dynamic motion look typefaces often have sharp angles, which gives them a fast-paced and energetic look. • Diagonal lines: Diagonal lines are another common feature of speed, dynamic motion look typefaces. These lines create a sense of movement and dynamism. This creates a single style of lettering, called italic. • Bold strokes: Bold strokes are also common in speed, dynamic motion look typefaces. These strokes help to create a sense of power and impact. • Lack of ornamentation
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Table 2: A review and comparison of ITS-Artistech to other typefaces
Source: author's documentation

Explore concepts visually through sketches



Figure 4. ITS Artistech typeface draft sketch.
Source: author's documentation, 2023

Vector-based graphics digitization and stroke correction process

In this stage, we performed digital matrix measurement and optical adjustment. This resulted in changes and adjustments from manual sketches to digital.



Figure 5. Screenshot of the vector graphics-based digitization process.
Source: author's documentation, 2023

The fundamental stem structure slanted, stroke width, anatomy, and Hand Gloves test

1. The fundamental stem structure slanted, 12 degree to the right, based on Samara (2006). If the slanted stem structure is less than 12 degrees, it is optically less significant. Conversely, if it is more than 12 degrees, it appears too tilted. This diagonal line angle is important because it represents the key character of a typeface: movement, dynamic motion, speed.

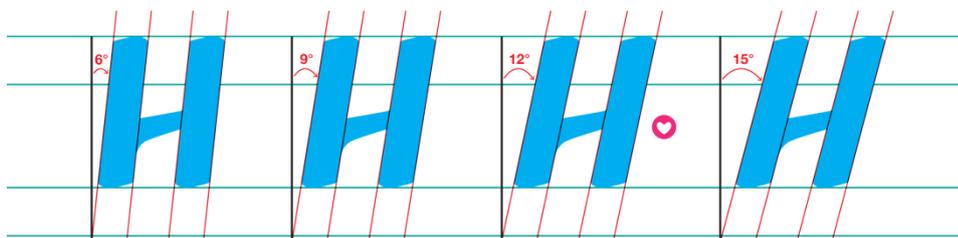


Figure 6. Exploration of the diagonal lines.
Source: author's documentation, 2023

- In the anatomy of the letterform, the x-height is designed to be 52% of the height of the type-body (from the ascent line to the descent line), while the ascender and descender are 24% of the body height. In the "Hand Gloves" test, which is designed to determine the effects of matrix measurement and optical adjustment, as well as the kerning or spacing problems caused by the shape (anatomy) of the designed letterforms, samples of uppercase (H), lowercase, lowercase with ascenders (d), lowercase with descenders (g), letters with a single vertical stroke (l), and a group of letters with a basic circular shape (o, e, s) and triangular shape (v) are displayed.

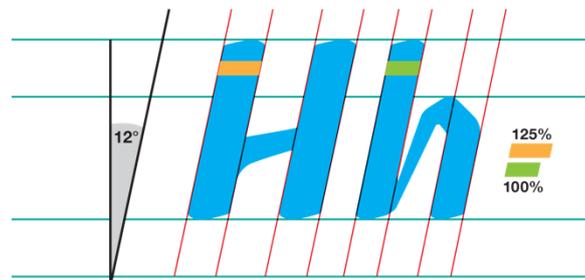


Figure 7. Comparison of vertical strokes or stems in uppercase and lowercase letter.
Source: author's documentation, 2023

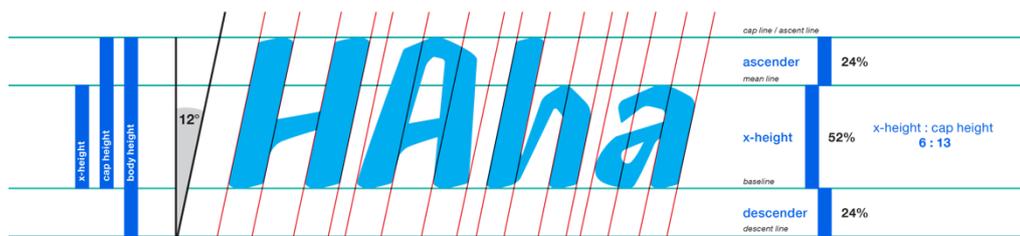


Figure 8. Typeface design in the anatomy of letters.
Source: author's documentation, 2023



Figure 9. Experimentation on readability when letters are arranged in words.
Source: author's documentation, 2023

A sample of the alternative designs



Figure 10. Alternative designs for a sample of letter form. The selected letters are marked with a heart.
Source: author's documentation, 2023

No	Characters	Description (based on key features on the Table 1)
1	B, D, and P	Choosing an eye shape with a sloping shoulder that widens on a vertical stem, similar to letters with similar structures (D, R, and F, C, G).
2	M	Choosing a low/modern vertex, branch that seems to continue the vertical stem, notched and angled
3	Q	Choosing a longer tail because it creates stronger legibility
	T	Choosing an arm/crossbar that has a similar shape on the left and right
5	V	Choosing a stem that is straighter than curved
6	W	Similar to M, it is more notched and angled
7	X, x, and Z	Choosing a narrower letterform because a wider one creates a wider optical effect
8	o (zero)	Choosing a letter that has a diagonal stem (crossbar) to distinguish it from the letters "O" and "o"
9	1 (one)	Choosing a letter with a crossbar to distinguish it from the letters "I" and "l"
10	g and y	Choosing a story that is wider and parallel to the shoulder
11	l and t	Choosing the tailed version (instead of the cruciform version) because it creates stronger legibility
12	o	Choosing a stem that is more precise
13	p	Choosing an eye shape with a dipping shoulder and a lower branch
14	r	Choosing a different lowercase "r" shape that better reflects the key features
15	w	Choosing a letter with a more curved stem
16	@	Choosing a more notched (mechanical) design

Table 3. The selection of a sample of characters and the description
Source: author's documentation

Legibility, readability, and unity test

This test was conducted on 200 students, faculty members, and external campus visitors. At the end, the author team also gave a score based on their expert judgment. From the test results, it can be concluded that the Artistech typeface has a high level of legibility, readability, and unity, and is easy to reflect the character of the ITS campus.

Legibility	Readability	Unity	Easily associated with the key characteristics of ITS campus
★★★★★	★★★★★	★★★★★	★★★★★

Table 4. The result of legibility, readability, and unity test
 Source: author's documentation

Design of promotional posters, character/alphabet presentation posters, and anatomy posters.

Promotional posters were designed to promote and introduce the typeface to the audience/user (figure 8). Specimen posters present the complete alphabet, including numerals and punctuation marks (figure 8). Finally, the anatomy poster displays samples of the typeface's anatomy along with samples of waterfall tests at various sizes (figure 9).



Figure 11. (left) Promotional poster of ITS-Artistech and (right) the specimen poster
Source: author's documentation, 2023



Figure 12. ITS-Artistech anatomy poster
Source: author's documentation, 2023

CONCLUSION

Based on the design process that has been carried out, we have produced a set of typefaces named ITS-Artistech, including uppercase, lowercase, and punctuation. This typeface was created by synthesizing and embedded key features into the anatomy of Latin letters that were extracted from the key characteristics and images of the ITS campus profile/identity. The typeface glorifies modernity, dynamism, technology-inspired, industrial aesthetic, and creative spirit. The typeface is available as a digital letterform (font) that can be installed, used and shared. This typeface is one of the alternative typefaces that reflects the characteristics of ITS. This research is intended to contribute to the theoretical and practical knowledge in designing typefaces that reflects campus identity. In the future or in subsequent research, more ITS-inspired typeface designs can be created to enrich the choice of typefaces for display or headline needs in promoting campus activities and identities.

ACKNOWLEDGEMENT

The authors acknowledge the financial support of the Department of Visual Communication Design, Faculty of Creative Design and Digital Business (Creabiz Faculty), Institut Teknologi Sepuluh Nopember (ITS), Surabaya, Ministry of Education, Culture, Research and Technology, for this research under the Departmental Research Funding Agreement (Departmental Research scheme), Work Unit Fund, Batch 1, 2023, with Master Contract Number: 1300/PKS/ITS/2023, dated 12 Mei 2023 and Researcher Contract Number: 1359/PKS/ITS/2023, dated 12 Mei 2023. The authors acknowledge the contributions of our students to the completion of this research.

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