



# EXTENDED ABSTRACT



**InViCCAD 2025**  
1<sup>ST</sup> INTERNATIONAL VIRTUAL COMPETITION OF CREATIVE  
ARTS & INNOVATIVE DESIGN IN TEACHING & LEARNING



# Design Innovation Academic Show 2025



Organized by



Fakulti  
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Collaboration with



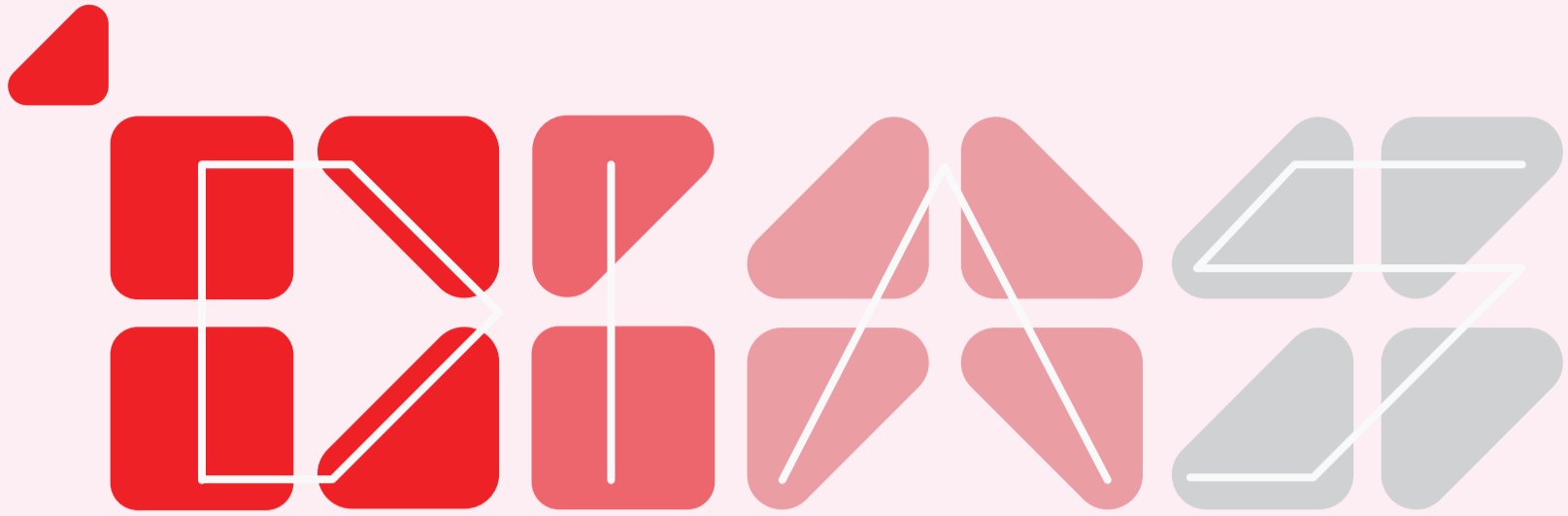
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**EXTENDED  
ABSTRACT**

**Design  
Innovation  
Academic  
Show 2025**





DIAS 2025 (Design Innovation Academic Show) is all about "Transcending the Boundaries of Creativity: Innovation in Art & Design for 21st Century Education." This vibrant program shines a spotlight on how creativity and innovation are reshaping modern education.

It consists of three key components. First up is the Mindareka Design Show, an exhibition that showcases students' final year projects and creative designs, giving them a chance to connect with industry professionals and the wider community. Next, we have the Northern Innovation Academic Tour (NIAT), which takes participants on an academic adventure to select institutions and innovation centers in the northern region, aimed at promoting knowledge sharing and building strong academic and professional networks.

Finally, there's the 1st International Virtual Competition of Creative Arts & Innovative Design in Teaching & Learning (InViCCAID), a global competition that recognizes outstanding practices in teaching and learning by blending art, technology, and innovative design. But DIAS 2025 is more than just a talent showcase; it's a powerful platform for empowering both students and educators, while also strengthening collaborations between universities, creative industries, and global communities. With its inclusive and interdisciplinary approach, this initiative strives to spark relevant, competitive, and impactful ideas and innovations that truly benefit society and push the future of education forward.



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**D**esign  
*Innovation*  
**A**cademic  
**S**how 2025



**Prof. Dr. Roshima Haji Said**  
Acting Rector  
UiTM Kedah Branch

# Rector's Message

I am delighted to extend my heartfelt congratulations to the College of Creative Arts, UiTM Kedah Branch, for bringing MINDAREKA 2024 - Unleashing Your Visual Creativity to fruition. The triumphs of past MINDAREKA editions undoubtedly fueled the organization of this year's event, making MINDAREKA 2024 a reality.

MINDAREKA 2024 - Unleashing Your Visual Creativity stands as a testament to the dedication of students at the College of Creative Arts, UiTM Kedah Branch, providing them with a platform to showcase their final art projects. Beyond serving as a space for the exploration of fresh, innovative, and entrepreneurial concepts, this exhibition is poised to connect aspiring talents with potential clients and employers.

I extend my sincere gratitude to all participants whose enthusiasm and support have contributed to the success of MINDAREKA 2024 - Unleashing Your Visual Creativity. Their unwavering belief and commitment have truly brought this event to life, marking it as a resounding triumph!





# Head of Faculty Message

It is an honour to introduce DIAS 2025 – Design Innovation Academic Show, held under the theme “Transcending the Boundaries of Creativity: Innovation in Art & Design for 21st-Century Education.” This significant event reflects the faculty’s ongoing commitment to fostering a culture of innovation, critical thinking, and creative exploration among our students and academic community. As we navigate the complexities of the 21st century, it becomes increasingly clear that education must go beyond traditional boundaries to embrace multidisciplinary approaches that are both relevant and future-forward.

The three core components of DIAS 2025, Mindareka Design Show, Northern Innovation Academic Tour (NIAT), and the 1st International Virtual Competition of Creative Arts & Innovative Design in Teaching & Learning (InViCCAID) which is serve as vital platforms to highlight the convergence of design, technology, and pedagogy. These initiatives not only empower our students to showcase their talents and ideas, but also create opportunities for engagement with industry leaders, academic peers, and global collaborators. The Mindareka Design Show celebrates student creativity and innovation through compelling final year projects. NIAT fosters knowledge sharing and institutional partnerships through academic visits and exchanges, while InViCCAID offers international recognition for excellence in integrating art and design into teaching and learning.

I would like to express my deepest appreciation to the organising committee, faculty members, students, and strategic partners who have worked tirelessly to bring this programme to life. Your dedication and collaborative spirit have made DIAS 2025 a reality and a reflection of our shared vision for transformative education. It is my hope that this platform will continue to inspire meaningful dialogue, cultivate groundbreaking ideas, and spark a new wave of innovation that enriches both education and society.



**Mohamat Najib Mat Noor**  
Head of Faculty  
Faculty of Arts & Design  
UiTM Kedah Branch





**Industrial  
Design  
(Bachelor)**





## LIDÉ | NIPAH PALM MIDRIB STICK OTTOMAN

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### ABSTRACT

This study explores the aesthetic and functional potential of Nipa Palm (*Nypa fruticans*) midrib sticks in sustainable craft and furniture design, focusing on both material enhancement and practical application. Through a series of experimental dyeing and bleaching techniques, the research investigates the visual transformation of midrib sticks using natural and synthetic dyes on treated and untreated samples. Results reveal that treated midribs absorb dyes more uniformly, with natural dyes showing better integration with the fibrous texture, resulting in a soft, organic finish. Bleaching improves surface brightness and uniformity, enhancing the material's decorative appeal without compromising color intensity. These findings offer practical insights into optimizing local, eco-friendly resources for modern design applications. Building upon this material study, the project introduces LIDÉ, a multifunctional ottoman that incorporates dyed and bleached nipa palm midrib sticks as key decorative elements. Blending traditional cultural identity with contemporary furniture aesthetics, LIDÉ features MDF panels adorned with midrib patterns and serves dual purposes seating and storage making it ideal for small living spaces. The design not only promotes cultural heritage and environmental responsibility but also supports local artisan communities by elevating underused natural materials through innovative craftsmanship. This integrated approach demonstrates how scientific experimentation, and thoughtful design can work together to modernize traditional resources, offering sustainable, visually compelling alternatives in today's furniture market. The project reinforces the relevance



of Malaysia's natural materials in contemporary design while preserving cultural identity through eco-conscious, nature-inspired solutions.

**Keywords:** Nipa Palm, sustainable design, natural dyes, furniture innovation, cultural heritage

## INTRODUCTION

LIDÉ explores the design of a multifunctional ottoman that incorporates nipa palm midrib sticks, a traditionally underutilized material, into modern furniture design. By combining natural elements with synthetic-dyed accents, LIDÉ highlights vibrant textures and colors while promoting sustainability and cultural preservation. The design serves two purposes: it functions as both seating and storage, making it ideal for urban dwellers and residents of small spaces. MDF panels, decorated with LIDÉ's unique patterned elements, enhance its visual appeal. This innovative approach supports local artisans, strengthens cultural appreciation, and introduces a fresh, eco-conscious alternative to today's furniture market.

## MATERIALS AND METHODS



Figure 1.1 The picture of final design

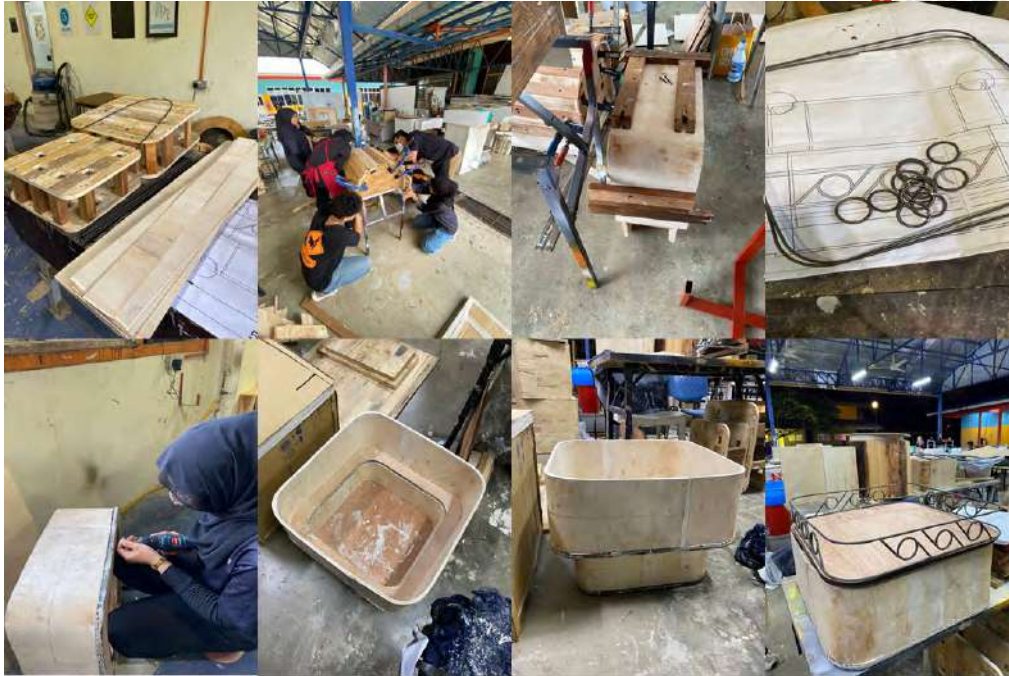


Figure 1.2 The picture of the ottoman-making process

First, I used pine wood to create the mold for shaping 3mm plywood. Once the mold was completed, I cut the plywood according to the desired size. The plywood was layered using four pieces to ensure strength and flexibility. Then, I began bending the layered plywood around the mold that I had built. Next, I used 5mm plywood to form the base of the ottoman body and secured it by screwing it into place. After that, I assembled the top and base parts to form the full body of the ottoman. For the decorative metal frame, I bent the metal to achieve the desired shape and welded the joints together. After completing the main structure, I attached the exterior shell, including the MDF panels and integrated *lidi nipah* (Nipa Palm midrib) pattern elements. The final steps involved polishing the entire ottoman to give it a smooth, sleek, and sophisticated finish. The last few images show the nearly completed LIDÉ ottoman, featuring curved MDF edges, natural decorative patterns, and a blend of traditional materials with modern furniture design.



The LIDÉ ottoman project shows how traditional materials can be used in modern furniture design. I used layered 3mm plywood and shaped it using a pine wood mold to create a smooth, curved form. By using four layers, the plywood was both flexible and strong. I added a 5mm plywood base to make the structure more stable. The bending and assembly process worked well, and the plywood kept its shape without cracking. I also created a metal frame by bending and welding it to match the design, which gave extra support and a nice decorative look. One of the special parts of this ottoman is the use of *lidi nipah* (Nipa Palm midrib sticks). I treated, dyed, and arranged them to create a unique pattern, which added color and cultural value to the design. The finished ottoman has curved MDF edges, a clean finish, and serves two functions—as a seat and as storage. It is perfect for people living in small spaces. Overall, this project combines traditional craft with modern style, while also being eco-friendly and meaningful.

## CONCLUSION & RECOMMENDATION

In conclusion, the LIDÉ ottoman successfully integrates nipa palm midrib sticks into a multifunctional modern furniture piece that blends traditional Malaysian elements with synthetic-dyed accents. The final product is both aesthetically appealing with vibrant colors, textures and highly practical, serving as seating and storage, making it ideal for urban dwellers and small living spaces. This approach not only promotes the use of underutilized natural materials but also supports local artisan communities and encourages sustainable design practices. Moving forward, it is recommended to explore natural and eco-friendly dyeing methods, develop protective surface treatments to improve durability, and consider expanding the application of nipa palm midrib sticks to other design products such as interior décor and lighting. Collaborations with traditional craft practitioners are also encouraged to preserve cultural heritage while fostering innovation in modern furniture design.



Figure 1.3 The picture of Environment (LIDÉ)

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