UNIVERSITI TEKNOLOGI MARA

EXTENDED ABSTRACT

DKA 2025

InVICCAID 2025
1ST INTERNATIONAL VIRTUAL COMPETITION OF CREATIVE ARTS & INNOVATIVE DESIGN IN TEACHING & LEARNING

MONDARIKA

NIAT
NORTHERN INNOVATION ACADEMIC TOUR

Design Innovation Academic Show 2025

Organized by

Faculty of Art & Design
#perubahanluarbiasa
#ADpilihanpertama

UNIVERSITI TEKNOLOGI MARA
Fakulti Seni Lukis & Seni Reka
Cawangan Kedah

UiTM di hatiku

Collaboration with

PUSAT SAINS NEGARA WILAYAH UTARA

KEMENTERIAN SAINS, TEKNOLOGI DAN INOVASI
MINISTRY OF SCIENCE, TECHNOLOGY AND INNOVATION

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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Design Innovation Academic Show 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

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

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.

Industrial Design (Bachelor)

OURA LAMP | TABLE LAMP

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ABSTRACT

The Oura Lamp is a biophilic-inspired table lamp that explores the potential of rice straw an abundant agricultural byproduct as a sustainable material for modern lighting design. Often discarded or burned after harvest, rice straw contributes to air pollution and environmental degradation. This project seeks to address that issue by transforming rice straw into a meaningful design element, aligning with principles of sustainability and nature-inspired design. Guided by biophilic design, the Oura Lamp reconnects users with nature through form, material, and sensory experience. The design investigates the physical and aesthetic properties of rice straw, focusing on its fibrous texture, light diffusion qualities, and compatibility with other natural materials such as sustainably sourced wood. The organic shape and tactile surface are intended to evoke calmness and emotional comfort within interior spaces. The final prototype reflects a blend of minimalism, environmental responsibility, and cultural relevance. Through material testing and iterative design, the lamp demonstrates how rice straw can be upcycled into a visually engaging, functional product. The Oura Lamp exemplifies how locally sourced, biodegradable materials can promote environmental awareness and well-being through sustainable product design.

Keywords: Rice Straw, Sustainable Design, Biophilic Design, Table Lamp, Green Innovation

INTRODUCTION

In response to growing environmental concerns and the disconnection between humans and nature in modern living spaces, biophilic design has emerged as a meaningful approach in industrial design. By integrating natural elements into everyday products, biophilic design enhances well-being, reduces stress, and promotes a deeper connection with the environment. This project, titled "*Exploring the Potential of Rice Straw as a Sustainable Material in Table Lamp Design,*" introduces the Oura Lamp, a table lamp designed using rice straw, a locally available agricultural byproduct often treated as waste(Hill, A., 2023).

Rice straw is typically burned after harvest, contributing to air pollution and carbon emissions. This project seeks to repurpose it into a valuable, eco-friendly design material that aligns with sustainable and biophilic principles. By combining rice straw's natural texture, organic form, and light-diffusing qualities with minimalist aesthetics, the Oura Lamp reconnects users with nature through both material and sensory experience. The project demonstrates how thoughtful product design can transform waste into functional beauty while promoting environmental awareness and well-being. (Hähn, N., 2020).

MATERIALS AND METHODS

Figure 1.1 Material manufacturing

The main material used in the creation of the Oura Lamp is rice straw, an agricultural waste product typically discarded or burned after harvest. Recognizing its environmental impact, this project aims to transform rice straw into a sustainable design resource. Its natural fibers are biodegradable, lightweight, and possess a unique texture that makes it ideal for lampshade applications. The material was sourced locally to reduce the carbon footprint and highlight the potential of renewable resources in industrial design (Jha, P., 2011).

The preparation process began by cleaning, boiling, and soaking the rice straw to break down its fibers. The softened straw was then blended into a pulp using water. This pulp was shaped into flat and cylindrical forms using a traditional papermaking method with a wooden frame and mesh screen, as shown in the image. The sheets and tubes were left to dry naturally, resulting in a firm, textured surface suitable for lampshade construction. The cylindrical form used in the Oura Lamp effectively diffuses light while maintaining a natural, handmade appearance. This method not only demonstrates the feasibility of reusing rice straw in modern product design but also supports sustainable, user-centered manufacturing practices (Kaur, D ., 2016).

RESULTS AND DISCUSSION/FINDINGS

The findings from the *Oura Lamp* project reveal that rice straw has strong potential as a sustainable material in product design, particularly for lighting applications. Through a series of material tests and design experiments, it was found that rice straw possesses unique aesthetic qualities, including a natural fibrous texture and warm light diffusion, making it highly suitable for lampshades. Additionally, when combined with sustainable wood for structural support, the overall product maintains both functionality and visual appeal. The final prototype successfully met the design objectives by being environmentally friendly, culturally inspired, and user centered. It demonstrated that rice straw, often viewed as waste, can be reimagined into a valuable design component without compromising strength or durability. This outcome supports the idea that locally available natural resources can be effectively utilized in green product development. The *Oura Lamp* serves as a practical example of how sustainable

thinking can influence modern design solutions (Binod, P., 2009).

CONCLUSION & RECOMMENDATION

In conclusion, the *Oura Lamp* project successfully demonstrates the potential of rice straw as a sustainable and aesthetically appealing material in table lamp design. By reimagining agricultural waste into a functional product, the project not only contributes to environmental sustainability but also promotes the creative use of local natural resources. The final design proves that rice straw can offer unique texture, warm light diffusion, and cultural relevance in modern interior products. This project highlights the importance of integrating eco-friendly practices into industrial design processes to address global environmental challenges.

As a recommendation, future projects should explore further techniques to improve the durability and finishing quality of rice straw-based materials, such as combining them with natural binders or protective coatings. Additionally, collaboration with local craftsmen and material experts could enhance production methods and scalability. Overall, the *Oura Lamp* sets a strong foundation for future innovation in sustainable lighting and product design using renewable materials.

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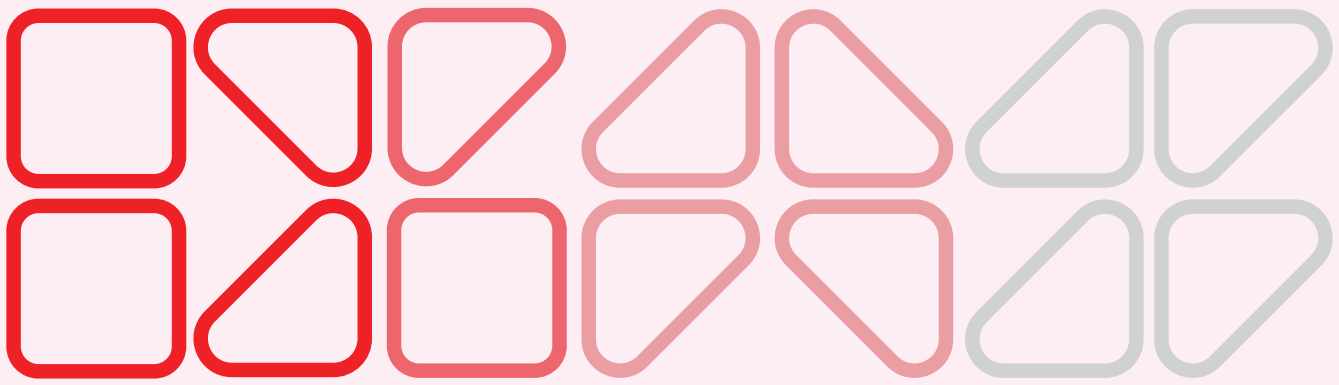

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