



EXTENDED ABSTRACT



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



Design Innovation Academic Show 2025



Organized by



Fakulti
Seni Lukis & Seni Reka
Cawangan Kedah



اوسها تقوى موليا

Collaboration with



#perubahanluarbiasa
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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.



Publisher

Universiti Teknologi MARA Kedah Branch,
Sungai Petani Campus,
08400 Merbok,
Sungai Petani,
Kedah,
Malaysia.

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Perpustakaan Negara Malaysia
Cataloguing – in- Publication Data

Editor : Syahrini Shawalludin, Juaini Jamaludin, Normaziana Hassan, Fadila Mohd Yusof

Co-Editor : Shafilla Subri, Mohd Syazrul Hafizi Husin, Abu Hanifa Ab Hamid, Norarifah Ali, Zaidi Yusoff, Mohd Taufik Zulkefli, Mohd Hamidi Adha Mohd Amin, Ahmad Fazlan Ahmad Zamri, Abdullah Kula Ismail, , Suhaiza Hanim Suroya, Mohamad Hazmi Shoroin, Mohd Zamri Azizan, Mohamat Najib Mat Noor, Asrol Hasan, Azhari Md Hashim, Azmir Mamat Nawawi, Dinah Rakhim, Hasnul Azwan Azizan@ Mahdzir, Nazri Abu Bakar, Muhammad Aiman Afiq Mohd Noor, Nizar Nazrin, Nazirul Mubin Awang Besar, Qatrunnisa Shariff, Mohd Rozman Mohd Nasir, Wan Noor Faaizah Wan Omar

Design & Layout Editor: Syahrini Shawalludin, Nazirul Mubin Awang Besar, Mohd Rozman Mohd Nasir & Qatrunnisa Shariff

Language Editor : Normaziana Hassan & Juaini Jamaludin

DIAS 2025 : Extended Abstract

Perpustakaan Sultan Badlishah
e ISBN: 9 789 672 948 780

Printed By :
Universiti Teknologi MARA Kedah Branch,
Sungai Petani Campus,
08400 Merbok,
Sungai Petani,
Kedah,
Malaysia.





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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

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
(Diploma)***





MASHOU | PORTABLE COOKING STOVE & HYGIENE KIT

¹ Muhammad Taufik bin Ramlan, ² Mohd Hamidi Adha bin Mohd Amin ,

³ Mohd Rozman bin Mohd Nasir

Industrial Design Department,
Faculty of Art and Design,
Universiti Teknologi MARA (UiTM)

ABSTRACT

The Portable Cooking Stove & Hygiene Kit, named **MASHOU**, is a compact, lightweight, and multifunctional emergency solution specifically designed to aid flood victims in Malaysia. Crafted using **durable and eco-friendly PLA (polylactic acid) material**, MASHOU emphasizes sustainability while providing essential cooking and hygiene tools in one convenient kit. Its design prioritizes portability, hygiene, and ease of use, ensuring that displaced individuals maintain dignity, safety, and resilience during disaster situations. MASHOU is a practical and responsible innovation aimed at improving daily survival and comfort in emergency environments.

Keywords: Emergency Relief, Portability, Hygiene & Cooking, Pla Bioplastic , Flood Response

INTRODUCTION

In Industrial Design, the integration of form, function, sustainability, and user experience is fundamental to creating impactful solutions for real-world challenges. MASHOU, a Portable Cooking Stove and Hygiene Kit, is a disaster-responsive product developed through a user-centered design approach. It addresses the urgent needs

of flood victims in Malaysia by combining essential cooking and hygiene functions into a single, compact unit that is easy to carry, use, and store. This project reflects core industrial design principles such as ergonomic functionality, modular thinking, material exploration, and contextual problem-solving. MASHOU is constructed using **PLA (polylactic acid)**, a biodegradable bioplastic material chosen for its environmental benefits, lightweight properties, and suitability for mass production. The design process involved research on user behaviour during emergencies, iterative prototyping, and visual presentation to ensure that both usability and aesthetics are achieved. Through this product, the goal is not only to meet practical needs during disasters but also to demonstrate how industrial design can contribute to social impact, sustainable innovation, and human dignity in times of crisis.



Figure 1 MASHOU

Meaning of MASHOU

In Japanese, "Mashou" (ましよう / ましようか) is a verb ending that expresses **volition or invitation**, often translated as "**let's [do something]**" or "**shall we [do something]?**" It conveys a proactive intention or a collaborative spirit to act together. A Portable Cooking Stove and Hygiene Kit designed for disaster relief. **MASHOU** symbolizes an encouraging call to action such as "**Let's prepare, let's care, let's support each other.**" This reflects the product's purpose as a practical, ready-to-use solution that empowers flood victims and disaster-affected communities to actively manage cooking and hygiene needs in difficult circumstances.

MATERIALS AND METHODS



Figure 2 The picture of the final 3d print

MASHOU is made from PLA (polylactic acid), a biodegradable bioplastic derived from renewable plant sources such as corn starch or sugarcane. PLA is an excellent choice of material due to its versatility in industrial design. It can be easily shaped using various manufacturing methods like injection molding and 3D printing, allowing the creation of ergonomic, modular, and compact products. Moreover, PLA offers good mechanical strength and rigidity, which are essential for a portable cooking stove and hygiene kit meant to withstand everyday use in challenging environments.

Overall, PLA is the optimal material for MASHOU because it successfully balances industrial design requirements, economic feasibility, health safety, and environmental



sustainability. This makes MASHOU a practical, affordable, and eco-friendly solution tailored to improve the lives of disaster-affected communities while promoting responsible innovation.

RESULTS AND DISCUSSION / FINDINGS

Based on the research conducted, it was found that flood victims need both cooking and hygiene support during emergencies. Many respondents suggested including items like soap, wet tissues, dish soap, hand sanitizer, and basic cooking tools. Portability was a key concern, with most people preferring a lightweight kit that is easy to carry, ideally under 2kg. As a result, PLA (polylactic acid) was chosen as the main material due to its lightweight, durable, and eco-friendly qualities. Users also preferred a multifunctional design that combines cooking and hygiene tools in one compact unit, such as a backpack or small box. The name MASHOU was well received and gave a calm yet strong identity to the product. Overall, these findings helped shape a user-friendly and practical emergency kit that supports flood victims' basic needs while focusing on comfort, dignity, and sustainability.

CONCLUSION & RECOMMENDATION

Overall, Portable Cooking Stove & Hygiene Kit has a lot of potential after reviewed has been done through the survey and data collection. During the flood crisis, **accessibility in cooking** could lead toward a huge problem **due to the lack of gas/electricity**. Majority of the respondent would **like to cook** their own meal during the flood crisis. **A portable and easy to carry around** is one of the features that has been highlight as one of the main features for this product. Due to this, most of respondent has seen the **backpacking stove kit** as their preferable concept kit. A portable cooking stove & hygiene kit weight also one of the infamous questions which lead to the **less than 2 kg** as a solution based on the collected data. Majority of respondent has chosen **aluminium** as the main material. **Black color** was the highest vote among of the other color. Lastly, hygiene kit such as **tissue, soap, hand sanitizer** was chosen as the fundamental items for hygiene kit.



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