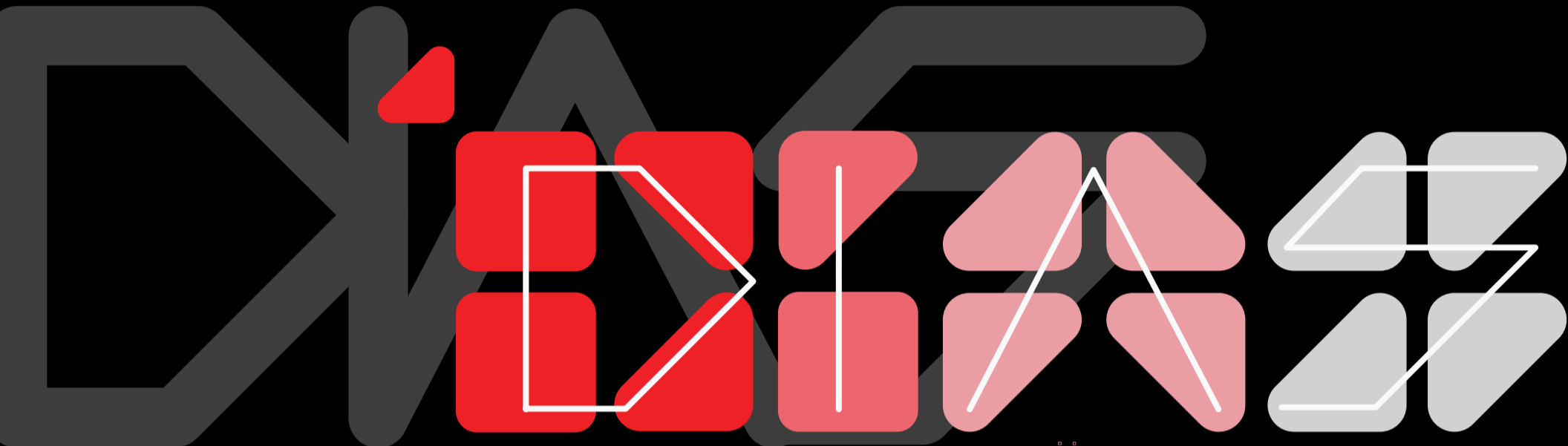




EXTENDED ABSTRACT



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
#ADpilihanpertama



**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

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)***





**STUDY ON DEVELOPING A MODERN AND AGGRESSIVE RESCUE BOAT FOR
MARITIME WITH PERODUA COLLABORATION
(SAVRIX)**

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ABSTRACT

This project introduces Savrix, a high-performance rescue boat that relevant with DNA of PERODUA, aimed at enhancing the effectiveness and safety of maritime rescue operations. It addresses key challenges faced by maritime professionals, including limited onboard efficiency, poor manoeuvrability in harsh sea conditions, and lack of sustainable features in current rescue vessels. Using Human-Centered Design (HCD) and marine design principles, the development process focused on functionality, user ergonomics, and environmental responsibility. Key features include a reinforced buoyant hull for stability, a modern and aggressive design aesthetic, ergonomic interior layout with medical and rescue compartments, and integrated solar panels for sustainable power supply. The final design delivers a user-friendly, durable and responsive rescue solution that meets the operational demands of coastal and offshore environments, while supporting both performance and eco-conscious goals in maritime safety.

KEYWORDS: Savrix, Rescue Boat Design, PERODUA Design DNA, Human-Centered Design, Maritime Operations, Solar-Powered System, Ergonomics, Rapid Response



Figure 1.1 The picture mood board for the inspiration

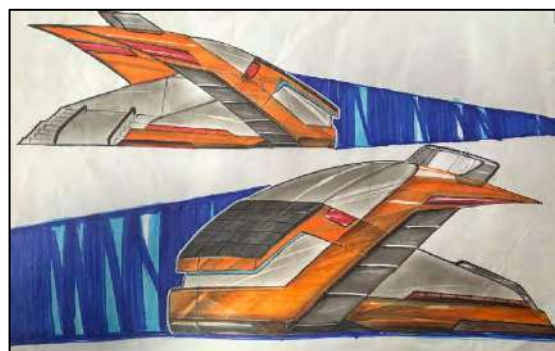


Figure 1.2 The picture of final design of the transport (Savrix)

While marine rescue operations are essential, many existing rescue boats fall short in terms of performance, user comfort, and adaptability to real-world conditions. This rescue boat designed to be **more responsive, reliable, and relevant** to the needs of today's maritime professionals.

This concept of rescue boat that relevant with DNA of PERODUA, aimed at enhancing the effectiveness and safety of maritime rescue operations offering a bold, high-performance solution built for speed, safety, and sustainability. The design process began by exploring mood boards inspired by aggressive, modern marine forms, sleek shape, and versatile that feels strong and modern.

Following the **Human-Centered Design (HCD)** approach, every stage of the project from early sketches to the final prototype was guided by real-world user feedback and operational demands. The aim was clear to create a boat that is **intuitive to operate, ergonomically structured and fully equipped** to support rescue missions in **coastal and nearshore environments**.

MATERIALS AND METHODS



Figure 1.3 The picture of making model using pvc boat



Figure 1.4 The picture after applying putty & duko

The design development began with background research to define the purpose and significance of creating a new type of rescue boat. The concept focuses on addressing real operational needs in maritime rescue by combining PERODUA's design DNA with performance-driven functionality. Inspired by the increasing demand for reliable, user-friendly, and sustainable rescue vessels, the project aims to improve safety and efficiency in coastal and nearshore environments.



The design process started with manual sketching during the ideation phase, where multiple concepts were explored through quick rough sketches. This was followed by the concept development stage, where selected ideas were refined with more detailed drawings focusing on form, usability, and space planning. In the design refinement phase, critical features such as hull shape, equipment layout, and the integration of solar panels were finalized, aligning with the project's goals of performance, ergonomics, and sustainability.

A physical prototype of the rescue boat was built to realize the idea. Because PVC board is rigid and easy to shape, it was chosen as the model's foundation material. Putty was used to smooth the surface after the structure was put together, and Duko spray paint was used to finish the model, giving it a neat, polished look that accurately captures the design intent. Lastly, using high-quality spray paint, giving it a clean and realistic appearance. This hands-on approach allowed for a tangible representation of the concept and demonstrated how the design could be applied in real-world scenarios.

RESULTS AND DISCUSSION/FINDINGS

The design development of the Savrix rescue boat is closely aligned with the operational needs and user-focused improvements outlined in the research. While the initial design process emphasized form, usability, and sustainability through manual sketching, detailed drawings, and physical prototyping, the deeper goal was always to solve real-world challenges faced by rescue teams.

The early finding such as poor ergonomics and lack of sustainable systems that directly shaped design decisions throughout the process. For example, in the **design refinement phase** and critical aspects like **hull shape** were tailored to support faster response times and ease of use under pressure. The inclusion of **solar panels** also reflects the project's commitment to sustainability and durability, as highlighted during background research.

By integrating **Human-Centered Design (HCD)** principles and engaging with end users throughout ideation and model-making, the Savrix concept matured into more than just a prototype however it became a functional and thoughtful solution. Every stage, from PVC model construction to ergonomic planning, served to ensure that the final

design not only looked modern and agile but also delivered genuine improvements in **safety, comfort, and mission readiness** for rescue crews.

CONCLUSION & RECOMMENDATION



Figure 1.6 The picture of Environment (Savrix)

The **Savrix rescue boat design concept** demonstrates how Human-Centered Design can effectively address real-world maritime rescue needs while prioritizing user experience and operational efficiency. By focusing on functionality, safety, ergonomics, and environmental responsibility, the vessel delivers a reliable solution for rescue teams operating in coastal and nearshore environments. Its organized interior, intuitive control layout, and integration of sustainable features like solar panels make it a modern, purpose-driven design tailored for high-stress scenarios.

It is recommended that future developments continue exploring the use of lightweight, sustainable materials, modular interior configurations for different mission types, and advanced technologies to support navigation and communication.



Ongoing collaboration with rescue professionals and stakeholders will help ensure the design evolves to meet user expectations and operational challenges in the field.

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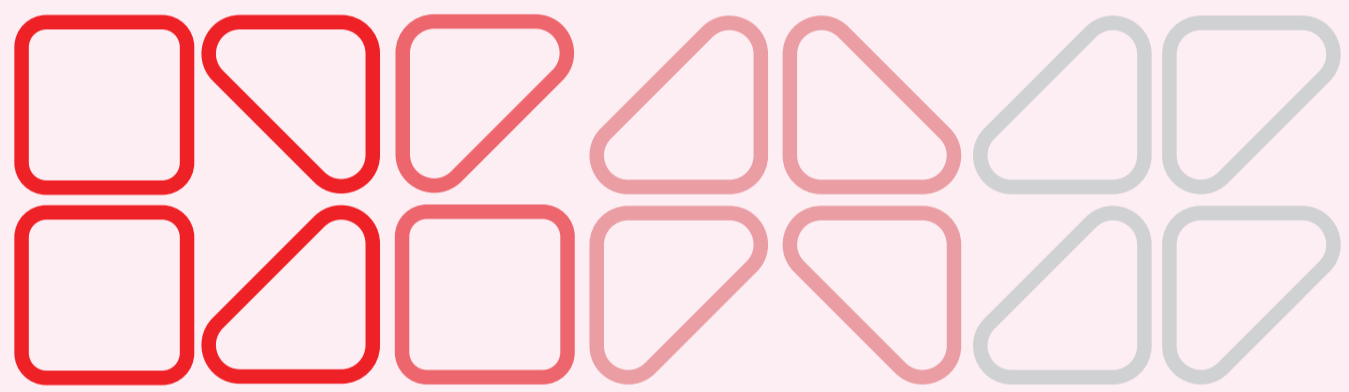
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