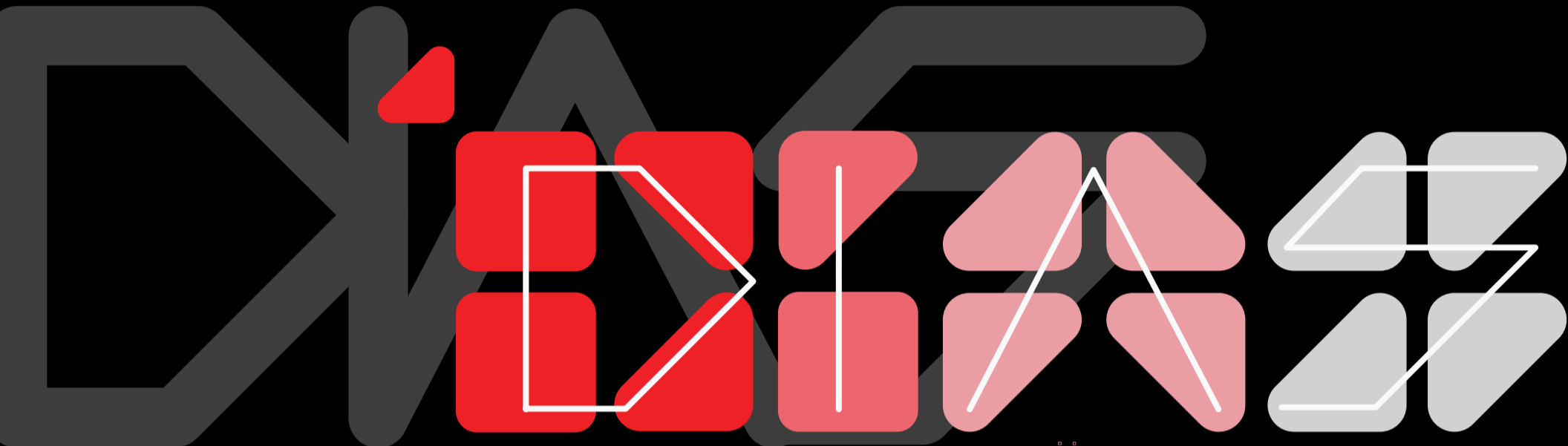




EXTENDED ABSTRACT



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 SPACIOUS AND COMFORTABLE MPV FOR GRAB AND PERODUA COLLABORATION

(Tigra-X)

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ABSTRACT

This project introduces a premium MPV design through a collaboration between Perodua and Grab, aimed at enhancing ride experiences for families, VIP clients, and travel groups. It addresses common issues in current ride-hailing vehicles, such as limited space, lack of comfort, and minimal eco-friendly features. Using Human-centred Design (HCD) and reverse engineering methods, the design focuses on spaciousness, safety, accessibility, and modern technology. Key features include a comfortable interior, privacy-enhancing layout, advanced safety systems, and eco-conscious powertrain options. The final design offers a user-friendly, sustainable, and stylish vehicle tailored for Malaysia's ride-sharing needs, supporting both comfort and environmental goals.

KEYWORDS: Perodua x Grab, MPV design, Human-Centered Design, user experience, eco-friendly vehicle, reverse engineering, smart mobility.

INTRODUCTION



Figure 1.1 The picture mood board for the inspiration



Figure 1.2 The picture of final design of the transport (Tigra-X)

Getting around is easier than ever with services like Grab, but many passengers, especially families, VIPs, and group travelers are still facing rides that feel cramped, uncomfortable, or simply not built with their needs in mind. That's what sparked the idea behind this project to design a better kind of ride-hailing vehicle, one that offers more space, comfort, and a modern touch. This concept imagines a new MPV (Multi-Purpose Vehicle) through a collaboration between Perodua and Grab, aiming to deliver a ride that's not only practical but also premium and future ready. The design process began with creating a mood board to capture the feel of what we wanted to build. The inspiration came from modern, futuristic aesthetics, combining sleek lines, smart technology, and a sense of comfort that fits today's lifestyles. Throughout the journey, we used the human-centred design approach to stay focused on what real users need. From early sketches to the final prototype, the goal remained the same: to design a vehicle that feels safe, spacious, and stylish for

something that makes every ride feel just right.

MATERIALS AND METHODS

The design development began with background research to identify the purpose and relevance of creating a new type of car. In this case, the concept focuses on a collaboration between Grab and Perodua to address the increasing demand for a premium, spacious, and user-friendly MPV for ride-hailing services. The idea was inspired by the need to improve passenger comfort, enhance privacy for VIP clients, and support sustainability through eco-conscious vehicle design. The process started with manual sketching, beginning from the ideation phase, where various concepts were explored through rough sketches.



Figure 1.3 The picture of making model using green foam



Figure 1.4 The picture after applying putty

This was followed by the idea development stage, where selected concepts were refined with more detailed drawings. In the design development stage, key features, such as form, function, layout, and style, were finalised. This led to the creation of the final design, which reflects the goals of the project: comfort, accessibility, modern aesthetics, and practicality. After finalising the design, a physical prototype was constructed to visualise the concept. Green foam was used for the base model due to its ease of shaping, while putty was applied to the exterior for a smooth finish. The model was completed 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



Figure 1.5 Solar Panel

Designing a vehicle that truly meets user needs requires more than just a stylish exterior; it's about understanding how people move, what they value, and the small discomforts that often go unnoticed. Through early research and observation, it became clear that many passengers, especially families and VIP clients, often feel limited by the current ride-hailing vehicle options. Common concerns included tight spaces, lack of privacy, minimal comfort features, and a growing demand for more environmentally friendly transport solutions. These insights directly shaped the design of the Perodua x Grab MPV. The final concept features a spacious layout, comfortable seating, and user-focused elements such as smart infotainment systems, improved accessibility, and privacy-enhancing design. Inspired by modern and futuristic aesthetics, the overall form maintains practicality while appealing to current design trends.

As part of the human-centered design approach, sustainability and user well-being were prioritised. A solar panel system was integrated to power interior lighting, ensuring a pleasant cabin environment while reducing energy consumption. This feature not only supports eco-friendliness but also contributes to passenger comfort during both day and night travel, particularly in low-light conditions. Throughout the process, starting from early sketches to the final prototype, real user feedback played a crucial role. The result is a balanced vehicle that addresses both functional needs like space and technology and emotional expectations such as feeling safe,

respected, and relaxed during every ride.

CONCLUSION & RECOMMENDATION



Figure 1.6 The picture of Environment (Tigra-X)

The Perodua x Grab MPV design concept showcases how human-centred design can effectively address real-world transportation needs while respecting user diversity. By focusing on comfort, accessibility, safety, and environmental responsibility, the vehicle provides a premium ride experience for families, VIP clients, and travel groups. Its spacious layout, smart technology integration, and eco-friendly features make it a practical yet modern solution for Malaysia's evolving ride-sharing services. It is recommended that future developments further explore sustainable materials, customisable interiors for different user types, and continuous technological upgrades to enhance user interaction and vehicle efficiency. Maintaining collaboration with local users and stakeholders is crucial to ensure the design consistently reflects user preferences and societal values.



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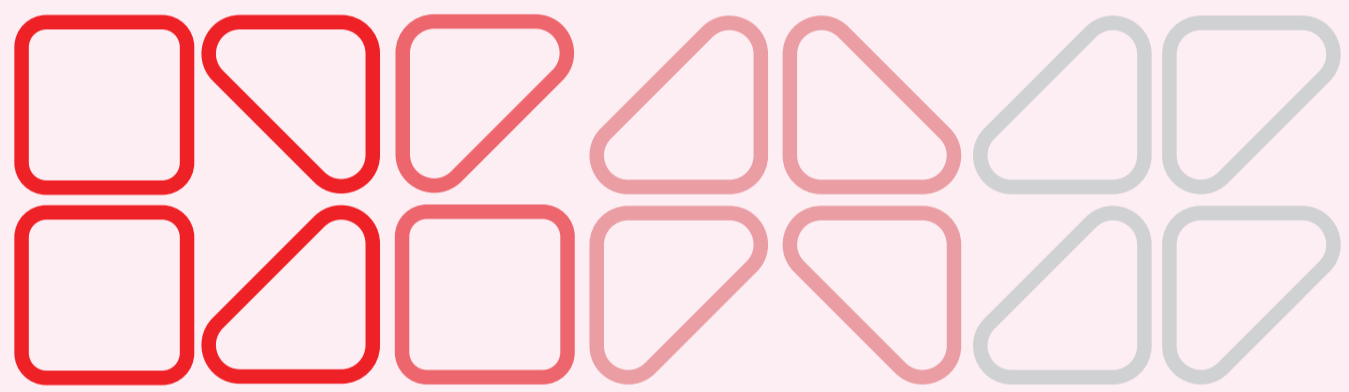
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