



EXTENDED ABSTRACT



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



Design Innovation Academic Show 2025



Organized by



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Cawangan Kedah



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Collaboration with



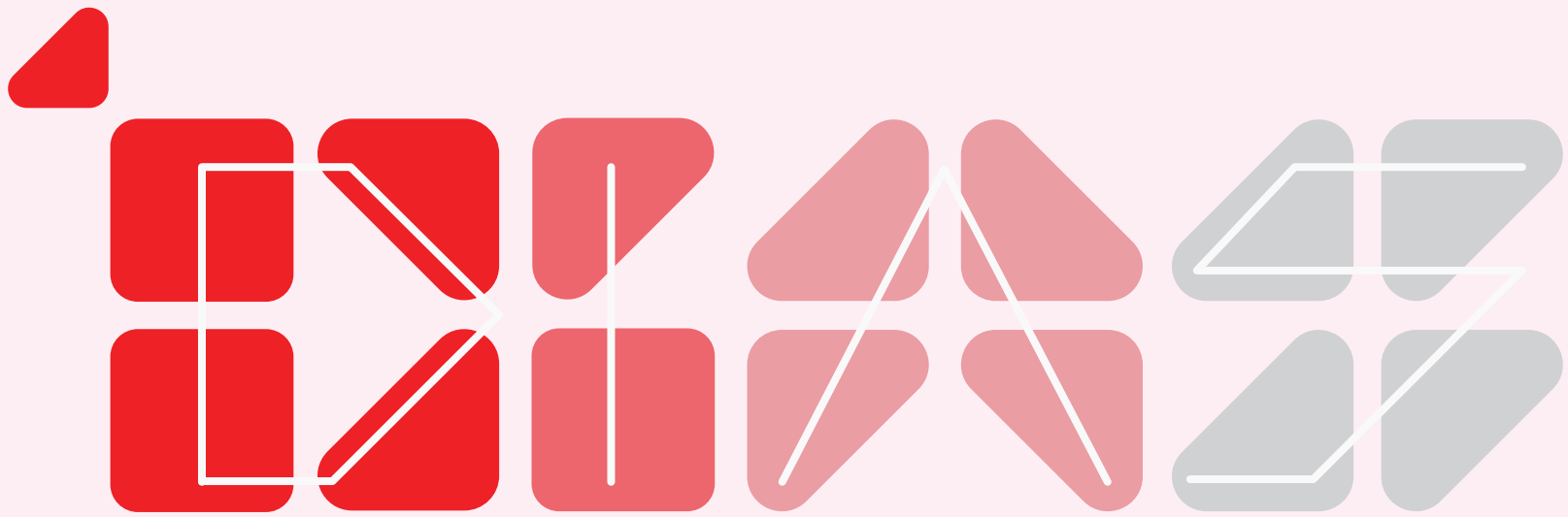
#perubahanluarbiasa
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ABSTRACT***

***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)***





DEVELOPMENT OF A COMPACT URBAN ELECTRIC MICROCAR WITH PERODUA COLLABORATION

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ABSTRACT

This project introduces **PERODUA IMPIANA**, a futuristic and compact electric microcar designed to meet the demands of urban mobility. Inspired by **PERODUA's design DNA**, the concept aims to provide a highly manoeuvrable, sustainable, and user-friendly vehicle for navigating modern city environments. Developed through a **Human-Centred Design (HCD)** process, the car focuses on compactness, comfort, and eco-efficiency. Key features include a streamlined aerodynamic body, minimal digital interface, and electric battery system suited for short city commutes. IMPIANA reflects a smart response to Malaysia's growing need for clean and practical urban transport.

Keywords: PERODUA IMPIANA, Electric Microcar, Urban Mobility, Human-Centered Design, Sustainable Transport

INTRODUCTION

Urban environments today face rising challenges in transportation, including traffic congestion, limited parking space, and environmental pollution. The PERODUA IMPIANA is a conceptual solution that envisions a locally designed electric microcar capable of addressing these problems.

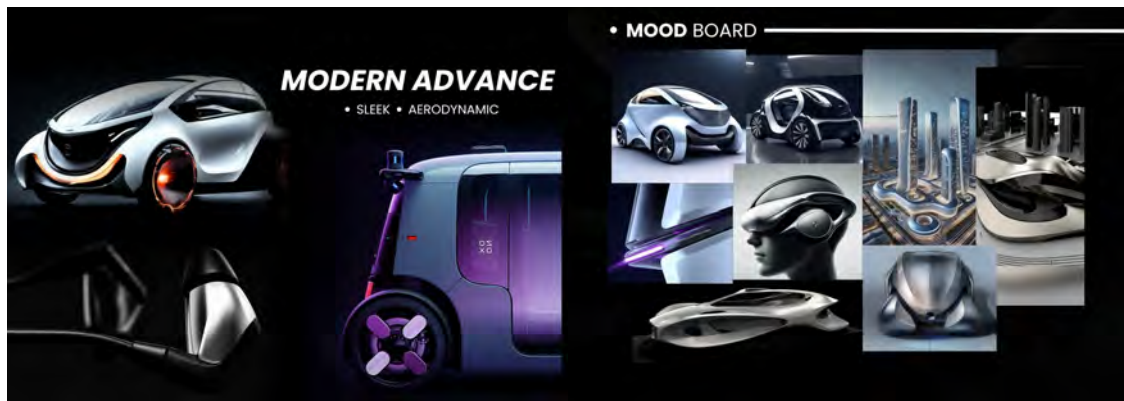


Figure 1.1 The picture of mood board for the inspiration

The car is built on a Smart-for-Two concept, designed specifically for two users with a small physical footprint, suitable for dense city layouts. Drawing inspiration from organic, compact, and futuristic forms, the design expresses PERODUA's potential direction in sustainable mobility. The design development was guided by mood boards, urban user analysis, and city-driving behaviour studies.

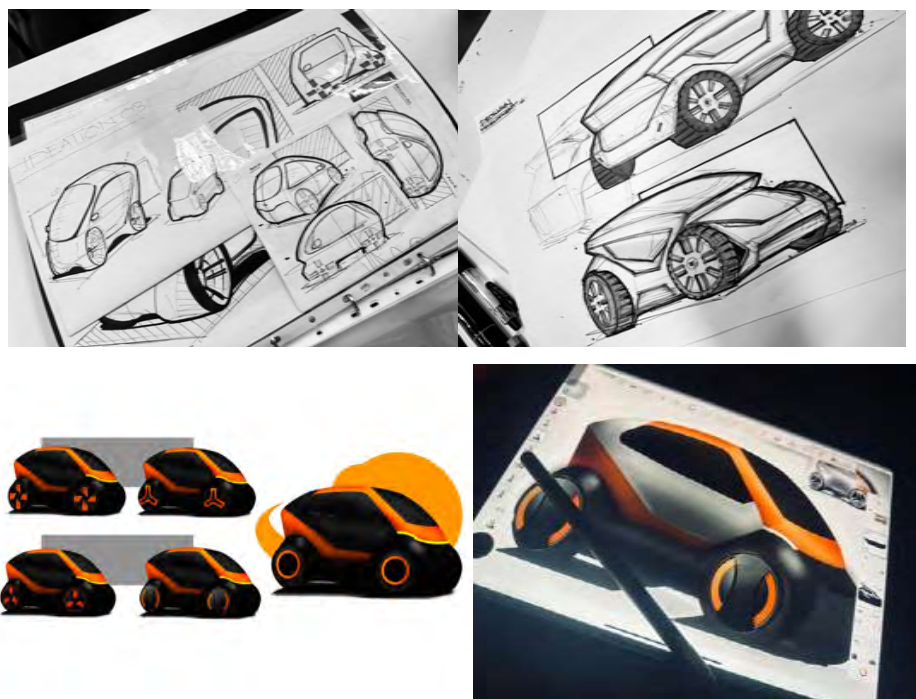


Figure 1.2 The picture sketches development

MATERIALS AND METHODS

The development of the PERODUA IMPIANA followed a Human-Centred Design (HCD) framework, beginning with observational research, concept sketching, and physical prototyping. Key focus areas included spatial efficiency, form ergonomics, and visual language. Materials were selected not only for prototyping feasibility but also to reflect sustainability and real-world applicability. The physical model of IMPIANA was built using green foam to sculpt the aerodynamic car body due to its flexibility and ease of carving. PVC board and wood were used for the structural framework to provide strength and dimensional accuracy during construction. Once the shape was achieved, putty was applied to smooth and refine the body surface, followed by sanding to prepare for finishing. Finally, spray finishing techniques were used to provide a clean, modern appearance that represents the proposed form and surface details of the final design. This model helped visualise proportions, user interaction, and spatial flow, ensuring the physical expression aligned with the design intent.



Figure 1.3 The picture of making the structure and the body of the model

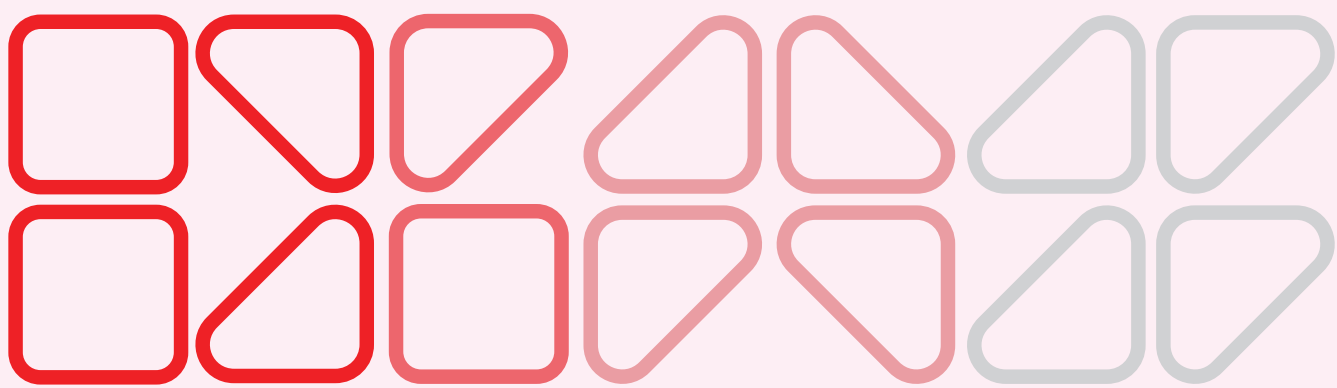
CONCLUSION & RECOMMENDATION



Figure 1.4 The picture of Final Design

The PERODUA IMPIANA electric microcar serves as a design vision for future Malaysian urban mobility. It merges practicality, brand identity, and sustainable values into a small, responsive vehicle that could play a vital role in easing traffic and reducing emissions in cities. The project demonstrates how local automotive design can evolve to offer smart, relevant solutions to real-world problems using compact electric vehicles.

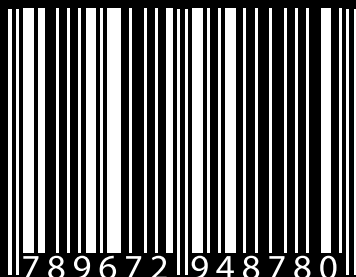
Moving forward, further development is recommended in areas such as digital connectivity, modular battery systems, and enhanced safety features to meet evolving user expectations. Collaboration with urban planners and automotive engineers could help adapt the design for real-world production and deployment within a smart city infrastructure.



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