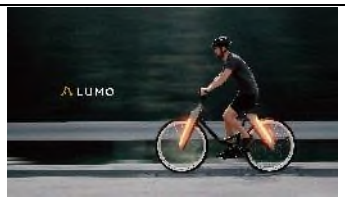
【26th International Bicycle Design Competition Winners List】

Awards	Project Title	Country	Designer	Project Description	Design Illustration
Gold	Mobile ecological data station-GreenTrail Hub	Taiwan	Yen-Chung, CHO	"The Mobile Ecological Data Station is an innovative urban perception system that redefines widely distributed shared bicycles from mere transportation tools into dynamic, grid-based environmental data collection nodes. It creates an ""every ride is collection, every move is sensing"" open platform, transforming daily commutes and leisure cycling into collective public action that contributes to scientific participation and sustainable urban development. Design Philosophy: From ""Transportation"" to ""Perception"" This design elevates the traditional function of shared bikes, which address ""last-mile"" travel needs, by endowing them with three new layers of value: 1.Perception Value: The bicycles become ""mobile nerve	

				endings"" for the city, continuously collecting high spatiotemporal resolution environmental data. 2.Participation Value: Each rider becomes a ""citizen scientist,"" their travel path directly generating valuable environmental information. 3.Sustainability Value: It quantifies and valorizes green mobility, creating a virtuous cycle of ""low-carbon travel → data feedback → environmental optimization."" Future Vision The Mobile Ecological Data Station outlines a new paradigm for smart cities: interactive infrastructure, fluid data, and citizens as co-creative agents. It is more than an environmental monitoring tool; it is a neural system propelling the city towards a perceivable, breathable, and sustainable future. Each ride becomes a gentle ""auscultation"" of the city's pulse, collectively	

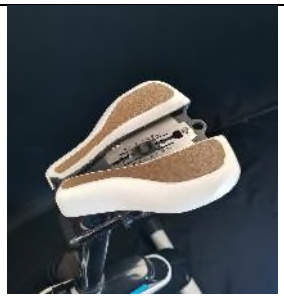
				composing a vivid, communal diary of the urban ecosystem."	
Silver	ORBI - smart cycling companion	India	Surya Teja Konijeti, Akanksha Shukla	Orbi ! - A smart cycling companion Orbi! is a smart cycling companion designed to help children build safe, joyful, and sustainable riding habits from an early age. It combines a detachable child-facing speedometer with a parent-controlled mobile app to turn everyday cycling into guided outdoor play. Parents create location-based missions through the app, while children unlock questions, rewards, and progress only by riding to real-world destinations. This design shifts engagement away from passive screen time toward active exploration. Safety is integrated through live location tracking, speed monitoring, SOS alerts, and emergency communication, giving parents peace of mind without interrupting play. By rewarding real-world movement rather than digital consumption, Orbi! encourages cycling as a positive habit rather than a one-	

				time activity. Over time, these early experiences help shape long-term mobility choices - supporting healthier lifestyles and fostering a future generation that naturally chooses cycling as a sustainable mode of transport.	
Bronze	Micromobility x Shopping	Taiwan	Chien-Chen, LAI Yu-Hsin, CHEN Jen-Hsiang, CHAN	Tosky Design collaborated with the Taiwan Design Research Institute (TDRI) on this project. This concept vehicle can be rented for use in shopping malls and nearby public transportation hubs. Integrated with an AI shopping assistant and smart follow function, the vehicle can automatically accompany users while shopping, providing real-time price checks, promotional notifications, and indoor navigation. The telescopic handle and foldable footboard allow it to convert into driving mode. While its storage space can hold purchases and automatically check out. Through voice control and crowd flow analysis, the system suggests optimal movement routes. The design emphasizes convenience and intelligent	

				interaction, meeting consumers' diverse mobility needs during shopping experiences.	
Excellent	LUMO	Taiwan	Kai, CHEN Ching-Han, CHEN Kun-Chen, LO Zhe-Cheng, CHANG	LUMO is an electric-assist bicycle integrated with turn signal functionality. Built around the core concept of "safe turning without looking back," the product combines rear turn signals with a camera module, transmitting real-time footage to a smartphone mounted on the handlebar. This allows riders to stay focused on the road ahead while remaining aware of traffic behind them. Beyond basic signaling, LUMO's smart indicators can detect approaching vehicles and actively issue warnings, increasing visibility and awareness during turns and reducing blind-spot risks between bicycles and cars.	
Excellent	Avant	India	Deepesh Kumar Bhandari, Pagare Aaditya Vijay, Sajal Goud, Vedant Shivaramakrishnan	AVANT "The vision ahead..." . AVANT is an inclusive bicycle concept designed to enable independent riding for visually impaired users	

				(Glaucoma, macular degeneration, cataract, diabetic retinopathy, peripheral vision loss) through a sensor-driven, multisensory interaction system. The bicycle integrates proximity sensors, inertial measurement units (IMUs), and speed sensors to continuously monitor motion, balance, and surrounding obstacles. Processed data is translated into haptic feedback through the handlebar and saddle, and audio cues delivered via bone-conduction output, allowing riders to perceive spatial and dynamic information without visual reliance. A low-center of gravity and stability-optimized frame geometry improve balance and control, particularly at low speeds. Tactile-coded controls and resistance-based braking feedback help riders accurately judge input and response. AVANT operates without screens and is designed to be compatible with	

				existing cycling infrastructure. By combining sensing technology with intuitive physical feedback, AVANT offers a practical, scalable approach to vision-independent cycling in everyday urban environments.	
Excellent + Merida	UNI MULA - Aluminum Extrusion Electric Urban Bicycle	Taiwan	Po-Han, CHEN	UNI MULA electric-assist bicycle is built around aluminum extrusion modular design concept, combining a freely configurable accessory system with intuitive left- and right-handlebar controls to improve flexibility and efficiency in everyday riding. The swappable battery and lighting modules support separate charging, reducing the need to move the entire bike. Quick-release accessories and adjustable front and rear storage allow users to adapt the setup to their needs, balancing aesthetics, safety, and practicality.	
Excellent	Micromobility in Healthcare	Taiwan	Chien-Chen, LAI Jen-Hsiang, CHAN	Tosky Design collaborated with the Taiwan Design Research Institute (TDRI) on this	

				project. This concept integrates an IoT-based system with shared electric mobility devices. Upon arrival at the hospital, patients can rent a shared electric mobility unit and attach it securely to their wheelchair. After logging into the system, the device displays the patient's scheduled medical workflow for the day, guiding them to consultation rooms, examination areas, and the pharmacy. Through system-driven automation, the concept reduces the burden on caregivers, simplifies complex in-hospital navigation, and enhances the efficiency and safety of medical visits for patients.	
Excellent	Adaptive Bicycle Saddle	Russia	Pavel Labutin	This development is aimed at improving the quality of cycling, thanks to the ability to adjust the saddle width from 100 to 150 mm, which allows for proper load distribution across the ischial tuberosities, thereby increasing comfort in any riding position and eliminating possible pain from improper	

				load distribution. A key feature is the quick adjustment, which can be accomplished in just three steps without tools, and the ability to quickly replace or swap out the soft padding, as it is located on separate moving parts of the saddle, opening up new horizons in the world of customization and design. A small number of parts increases reliability and service life. Importantly, this versatility will help reduce overproduction, allowing users to replace several types of saddles for different types of rides.	
Merit + Giant	UNICAR	Taiwan	Po-Yan, CHEN Yi-Cheng, GUO Tzu-Yu, WANG	This product "UNICAR" is a short-range transportation solution powered by a unicycle, combining its original riding mode with a trolley-style design to replace traditional fuel-based vehicles. It addresses everyday mobility needs by solving common issues such as parking difficulty, limited storage space, and complex unicycle operation. Aligned	

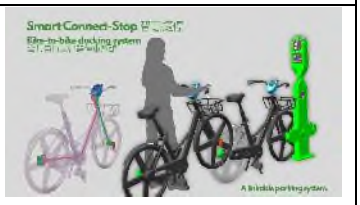
				with the trend of urban micro-mobility, the product emphasizes convenience and environmental protection, offering users an efficient, sustainable, and multifunctional way to travel while enhancing daily life with greater flexibility and ease.	
Merit	VeloEye	Taiwan	Yen-Chung, CHO	Vision as Interface: The Seamless Navigation Design of Smart Cycling Glasses "True freedom of movement begins when you no longer need to look down." Centered on the principle of "letting your field of view be your guide," this design integrates all essential riding information—from navigation prompts and speed to heart rate and rear vehicle alerts—directly onto the lens within the rider's sightline. Through sophisticated AR projection and environmental sensing technology, the lens transforms into a lightweight, intelligent "digital visual layer": semi-transparent route guidance floats ahead on the road, while	

				radar detection provides subtle light-based cues for surrounding activity, seamlessly extending the rider's awareness. Combined with voice control and auto-tinting lenses, the design liberates both hands and attention, allowing technology to recede into the background and leaving behind a pure, fluid, and confident riding experience. This is not merely a pair of glasses—it is a perceptual companion that redefines the relationship between the rider, the bicycle, and the road. With every journey, the field of view itself becomes the navigation to the world ahead.	
Merit	Venus-TriArmless Empower Bike	Taiwan	Kuan-Hua, CHEN	VENUS is an electric reverse trike specifically developed for armless individuals. It revolutionizes traditional cycling logic by utilizing a Double-wishbone suspension system to achieve body-lean steering, allowing riders to intuitively control direction through shifting their weight. All other	

				operations are integrated into the feet; a special coaster brake hub enables users to control both braking and the bell simply by back-pedaling. By combining a stable trike structure with an electric-assist motor, VENUS significantly lowers mobility barriers while creating an accessible, de-stigmatized, and liberating transportation experience for its users.	
Merit	ReTilt	Taiwan	Yu- Xuan, TSAI Zhen-Jia, ZHU Chung-Cheng, HO	An immersive motion-based cycling system This project is an immersive VR cycling system designed for home use, focusing on realistic physical feedback and intuitive body interaction. A front-mounted dual hydraulic suspension enables controlled tilting in multiple directions, translating virtual slopes, turns, and acceleration into physical motion. By synchronizing body movement with VR content, the system enhances realism beyond conventional stationary bikes. A modular VR helmet improves stability and	

				reduces latency, while the overall structure remains compact and adjustable for home environments. The design integrates motion, perception, and safety to create a more engaging and spatially efficient indoor exercise experience.	
Merit	CLIPRIDE	Taiwan	Kai-Chun, CHANG	This basket mount, for the urban rider and outdoor adventurer, is designed to securely hold objects of any shape with a simple touch. With its unique flexi-stretch design, it easily stabilizes items of all sizes, ensuring your belongings stay put even on bumpy roads. Say goodbye to the clatter and spills – just clip, ride, and enjoy your commute in peace.	
Merit	Micromobility x Store for the elderly	Taiwan	Chien-Chen, LAI Yu-Hsin, CHEN Jen-Hsiang, CHAN	This concept vehicle is designed for elderly-friendly shopping environments. It integrates body balance sensing, height-adjustable seating, and a rotating shopping basket, enabling elderly people with limited mobility to shop and move around with ease. The vehicle can	

				connect to personal health devices, recommending shopping lists based on health information, and features smart route guidance to automatically navigate to the corresponding shelves.	
Merit	Locky wheel	Taiwan	Ying-Liang, YAO Yu-Jung, WU Jia-Jhu, LIOU Chien-Yu, CHEN	This design is an innovative combination lock created for bicycle disc brakes, embodying the concepts of smart living, sustainability, and happiness. Instead of traditional numbers, it uses intuitive symbolic icons (❤️ 🌻 🏠 ⭐) for easier and more enjoyable operation, ideal for both seniors and children. The lock features a blue solar panel that powers built-in LED indicators, reducing disposable battery use and environmental impact. Its body is made from recycled aluminum or plastic, promoting durability and circular design. The LED also serves as a night light and unlock indicator, enhancing safety and convenience.	

Merit	KINMOVE	Taiwan	Kai-Chun, CHANG Huan-Wei, LU Yu-Chiao, WANG	KINMOVE This innovative electric assisted bike is designed around the core principles of Safety, Sharing, and Versatility, redefining modern family mobility. It focuses on providing a safer and more comfortable riding experience for parents and children, featuring a front-mounted child car seat compatible with 0-6 year olds to ensure automotive-grade protection. The modular frame design allows users to quickly transition between different modes, adapting to various daily scenarios and creating more of a reason to reach with confidence and ease. Combining safety, adaptability, and inclusive design, Kinmove represents a new vision of sustainable and family-friendly urban mobility.	
Merit	Smart Connect-Stop: A Linkable Bike-to-Bike Docking System	Taiwan	Hai-Wan, CHIANG	Smart Connect-Stop is an innovative solution addressing the common urban challenges of bike-share docking shortages and the high costs of manual dispatching. The	

				system features a unique "bike-to-bike" docking mechanism using integrated "Smart Pins" and "Rear Wheel Sockets." This allows users to daisy-chain bikes together, effectively creating a boundless docking line that maximizes station capacity with minimal physical infrastructure. The Smart Dock is equipped with solar power, environmental sensors, and RFID/NFC readers, utilizing software to dynamically regulate linkage capacity. By enabling users to dock directly into existing bikes, the system significantly reduces the need for truck-based rebalancing, optimizes space efficiency, and provides a more flexible, user-driven, and sustainable micro-mobility experience.	

※The original images can be downloaded from the cloud drive：
https://drive.google.com/drive/folders/16E24otnp9Ey0-JBYWNogSOcARka5iaRU