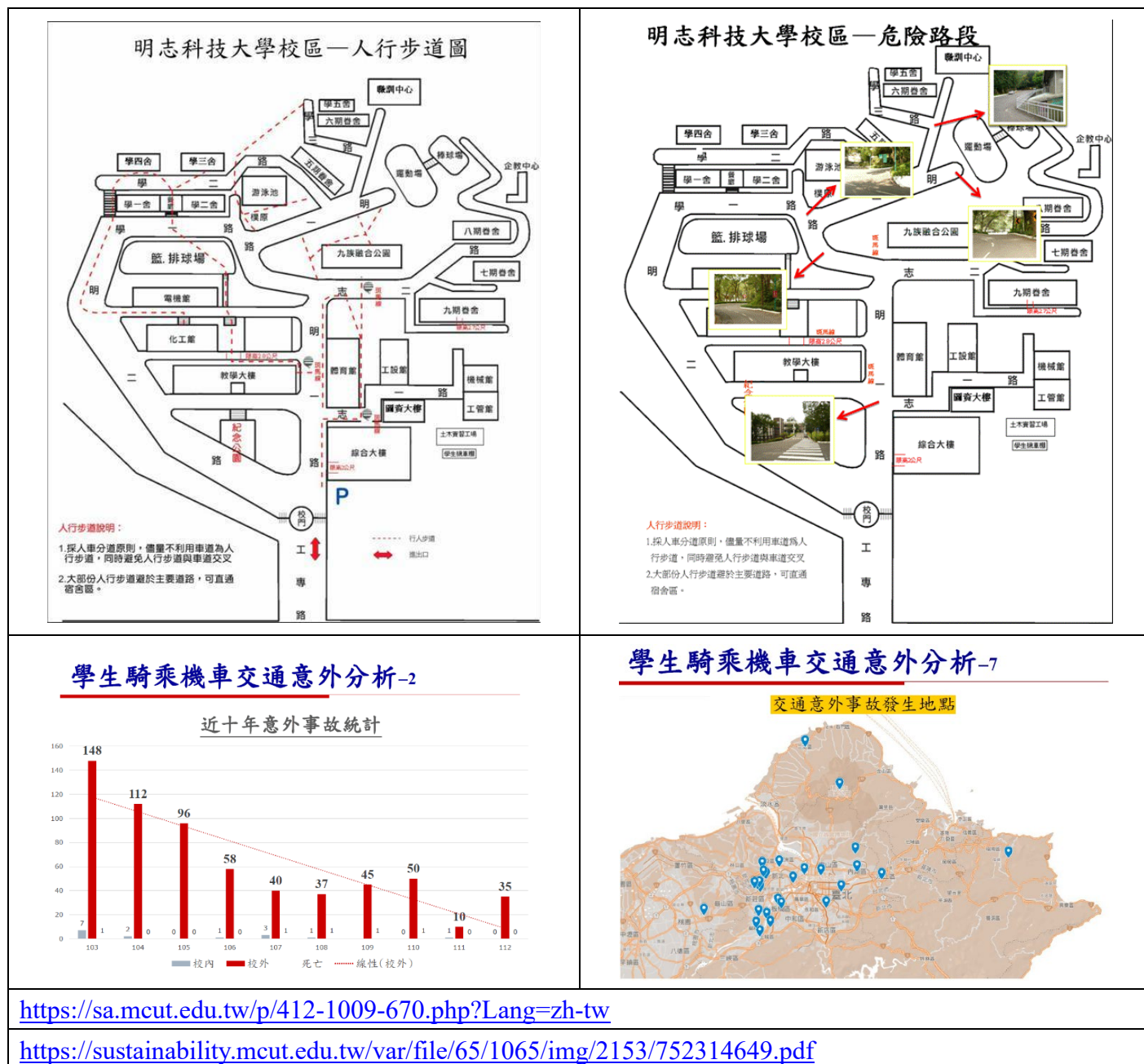


11.4.6 Pedestrian priority on campus

1. MCUT considers the traffic safety of the faculty, staff and students highly important. Each year, the Traffic Management Committee holds regular meetings to promote traffic safety concepts.

明志重視教職員及學生交通安全議題，每年定期召開交通管理委員會進行各項交通安全教育宣導



<https://sa.mcut.edu.tw/p/412-1009-670.php?Lang=zh-tw>

<https://sustainability.mcut.edu.tw/var/file/65/1065/img/2153/752314649.pdf>

2. The campus adopts separate lanes for pedestrians and vehicles to refine the sidewalks exclusively for pedestrians, and also install speed bumps and safety corridor maps to effectively control the movement of pedestrians and cars entering and exiting the school properly and prevent pedestrians and vehicles from competing for the same driveway. Meanwhile

校園採人車分道，完善行人專屬人行道，設置車輛減速坡與安全走廊地圖

校區人車分道

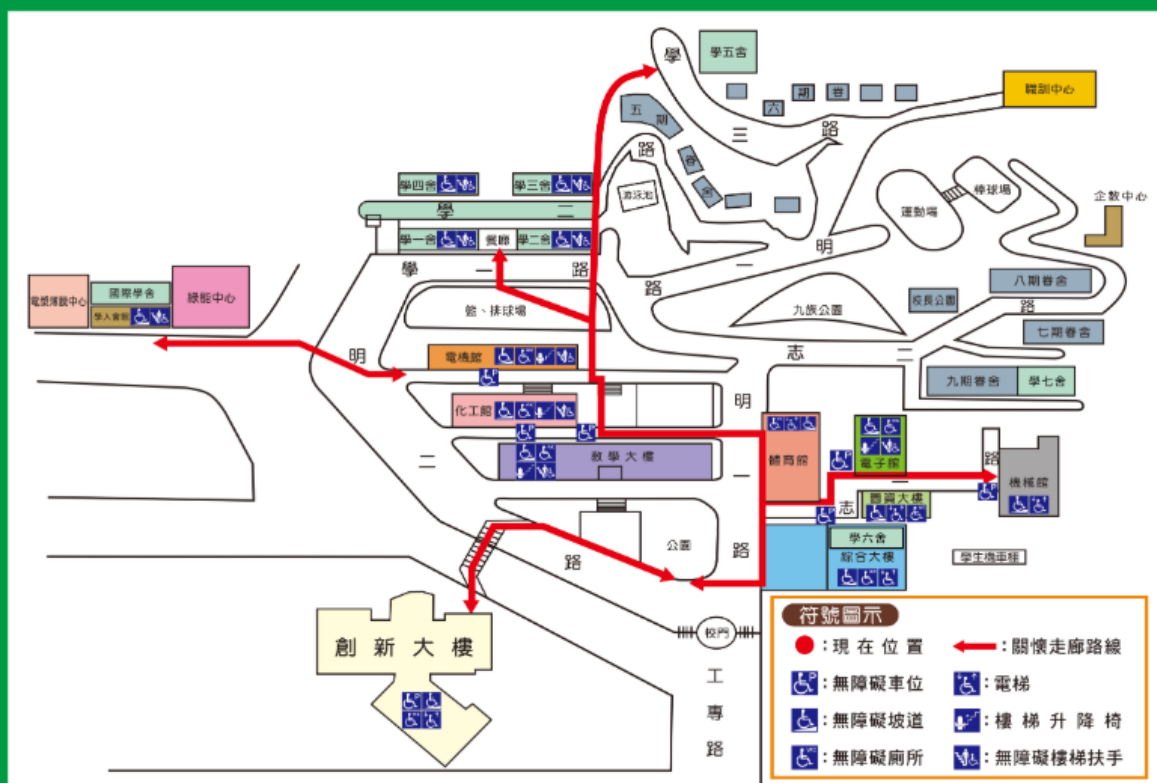
- 校園內主要道路設有人行道，宣導教職員生行走人行道，並設有關懷路線及行人行走路線立牌，使能引導人車分流，避免事故肇生。



校區人車分道



關懷走廊路線及無障礙設施地圖

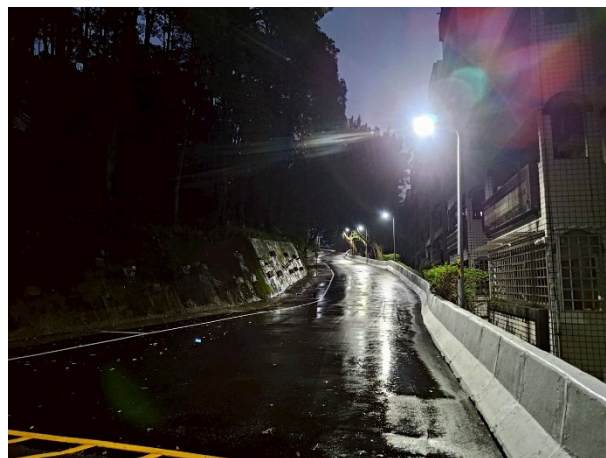
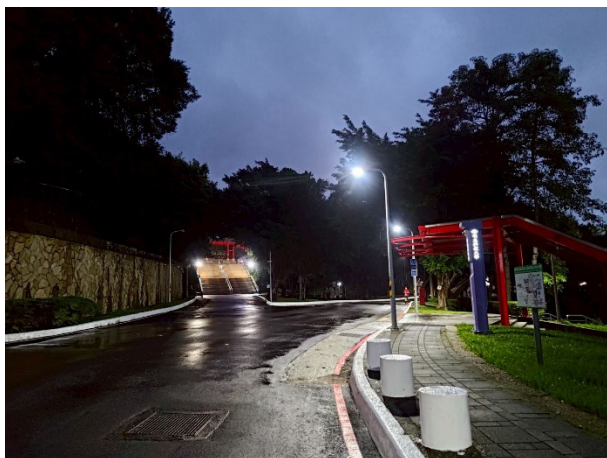


<https://csr.mcut.edu.tw/var/file/31/1031/img/2105/855560628.pdf>

<https://ga.mcut.edu.tw/p/412-1008-1819.php?Lang=zh-tw>

3. MCUT replaces the old streetlights with LED campus streetlights to improve pedestrians' visibility and safety at nighttime

汰換老舊路燈為 LED 校園路燈，提升夜間步行可視度與安全



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ESG Edition

1

Sustainable
MCUT

2

Institutional
Governance

3

Education
Performance

4

Low-carbon
Campus

5

Happy
Campus

6

Social Co-
prosperity

Appendix



明志科技大學
MING CHI UNIVERSITY OF TECHNOLOGY
2024 Sustainability Report

Energy Consumption and Management

Item	Handling status
Energy utilization	- In 2024, the overall power consumption increased by 0.4% compared to 2023. The energy usage index (EUI) per unit of floor area reached 92.15 kWh/m² on average, up by 0.41 kWh/m compared with the previous year. - Microgrid of energy storage system: installed capacity of solar panels: 30kWp; energy storage system installation: 100kw/200kWh; charging piles of electric vehicles: 180kW*1 + 7kW*5 - Solar energy facility installation: In 2024, the solar energy facility generated a total of 454,976 kWh of electricity in the first phase, resulting in a savings of NT\$ 2,346,871. The installation cost of the second phase of the solar energy facility was approximately NT\$4.8 million, and it is expected to be completed by the end of 2025. - Energy management installation cost: The cost of 85 smart electricity meters in phase 1 as well as the energy platform maintenance fees reached NT\$ 7.5 million, while the cost of 150 smart electricity meters in phase 2 would be NT\$ 7.5 million. - Air-conditioning replacement expenses in 2024: NT\$ 1.21 million.
Energy saving and carbon reduction measures	- In 2023, MCUT introduced energy-saving technologies and implemented an energy monitoring system in September. They strengthened management of high-energy-consuming equipment and continuously upgraded or replaced systems like lighting, elevators, and exhaust ventilation to boost energy efficiency and lower greenhouse gas emissions on campus. They also adopted measures such as an official vehicle carpooling system and the purchase of electric scooters. In December 2024, the university released the second edition of its energy policy, which outlines plans for energy control, conservation initiatives, and evaluation mechanisms. This policy aims to promote proper energy usage concepts and behavioral awareness, implement source-level management, and reduce overall energy and resource consumption. - Below is the data regarding carbon reduction as estimated in the energy-saving measures adopted in 2024 - In 2024, a total of 35 LED street lamps were replaced. Based on an estimated annual usage of 4,380 hours, this upgrade is expected to reduce electricity consumption by 40.9%, saving approximately 6,898 kWh of electricity and reducing greenhouse gas emissions by 3.27 metric tons of CO₂e. - In 2024, we replaced 600 panel lights. If calculated over 2,120 hours, this is expected to reduce power consumption by 55.4% annually. Specifically, 39,432 kWh of electricity can be saved, resulting in a reduction of 18.69 tCO₂e. - In 2024, night-time energy-saving mode was implemented on 104 water dispensers. For the UW-9505AG-110V model, which consumes approximately 12 kWh per day for 24-hour standby heating, an 8-hour shutdown from 10:00 PM to 6:00 AM was applied. This results in a daily energy saving of approximately 0.4 kWh per unit (12 * 8 / 24). Over the course of the year, the total estimated electricity savings amounted to 15,184 kWh, equivalent to a reduction of 7.19 tCO₂e. - In 2024, a total of 96 ceiling lights on the stadium's first floor were replaced. Based on an estimated annual usage of 780 hours, this upgrade is expected to reduce energy consumption by 54%, resulting in annual electricity saving of approximately 2,244 kWh, which is equivalent to a reduction of 1.064 tCO₂e. - In 2024, the lighting fixtures on the third-floor court of the stadium were replaced. With an estimated annual usage of 1,200 hours, this replacement is expected to reduce energy consumption by 25%, leading to annual electricity saving of about 5,280 kWh, which corresponds to a reduction of 2.5 tCO₂e. - In 2024, the lighting fixtures on the fifth-floor court of the stadium were replaced. Based on an estimated annual usage of 900 hours, the upgrade is expected to reduce operating time by 37%, resulting in annual electricity saving of approximately 13,320 kWh, which is equivalent to a reduction of 6.313 tCO₂e.
Solar photovoltaic net-zero construction	- In March 2021, in support of Taiwan's green energy policy, MCUT completed the first phase of solar panel installation across three buildings: the Machinery Hall, Innovation Building, and Teaching Building, with a total installed capacity of 413.06 kWp. By December 2024, the system had generated a cumulative total of 1,858,158 kWh of electricity, resulting in a reduction of approximately 918.93 metric tons of carbon emissions. - In August 2024, the campus energy storage solar microgrid system was completed, offering a solar power installation capacity of 30 kWp. From September to December, the system produced 5,743 kWh of electricity, resulting in a reduction of approximately 2.7 metric tons of carbon emissions. - In 2025, MCUT plans to implement the second phase of its solar panel installation project, with a planned installed capacity of 548.6 kWp.
Energy policy and sustainable development	- MCUT's energy policy has been developed with the joint participation of all faculty, students, and relevant stakeholders. It aligns with global trends in reducing greenhouse gases and government policies, aiming to advance the transition toward Net Zero and carbon neutrality while fully implementing ESG principles and the Sustainable Development Goals (SDGs). - Through the establishment of administrative management procedures, MCUT actively promotes Green Procurement, encourages faculty and students to engage in Green Research and Development (R&D), and integrates industry resources to foster collaboration between the green industry and academia. Additionally, we organize workshops and seminars focused on energy saving, carbon reduction, and community awareness to deeply embed the concept of Green Education within student development. - In 2024, MCUT received a subsidy from the Energy Administration, Ministry of Economic Affairs, as a demonstration unit for the ISO 50001 Energy Management System and carbon inventory. We engaged GPIEK Technology Co., Ltd. to assist in establishing the necessary systems and processes. As of December 2024, MCUT has successfully obtained the audit certification.

Note: The unit of the power carbon emission factor is kilograms of CO₂e per kWh. The power carbon emission factors for 2020, 2021, 2022, 2023, and 2024 were 0.502, 0.509, 0.495, 0.494, and 0.474, respectively.

<https://sustainability.mc.ut.edu.tw/p/405-1065-74324,c10138.php?Lang=en>

4. Installs additional removable bollards to improve space protection and flexible traffic control for pedestrians

增設可拆式路樁，強化人行空間防護與彈性管制



<https://csr.mcut.edu.tw/var/file/31/1031/img/2105/855560628.pdf>