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Lighting device saves up to 25pc of power use

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One of the city's universities has invented an energy-saving device that researchers say can reduce by up to 25 per cent the electricity used for lighting.

The device, developed at City University, is in use on Ho Man Tin Estate and is on trial in some offices of Sino Property Services, a property management company.

Henry Chung Shu-hung, who headed the team that developed the device, said feedback from the Housing Authority showed it helped cut electricity use by up to 25 per cent.

The device, installed in the meter room, dims the light by adjusting the voltage from the standard 220V to about 195V. It is connected to the mains supply and no major rewiring is required.

Professor Chung said the human eye would not be sensitive enough to notice the difference.

The Ho Man Tin Estate uses 117 of these devices, each costing HK\$4,000 and supporting 50 fluorescent tubes.

Professor Chung said 120 devices were being installed on Kwai Chung Estate and he was discussing with the government the possibility of extending the system to more estates.

The device at present is used only for lighting systems in public areas. Professor Chung said the research team was looking into the possibility of applying the device to use in flats, but the great variety of electrical appliances used in homes would make that difficult.

The device could also be used to dim the powerful lights on outdoor advertising boards, Professor Chung said. He estimated it would cut

electricity use by about 30 per cent.

The team has also invented an energy recycling system for power adapters used in manufacturing, converting the heat generated back into electricity. About 75 per cent of electricity could be recycled, which could save factories millions of dollars a year, Professor Chung said.

The team is also looking into ways to increase the efficiency and lifespan of invertors, devices that convert direct current generated from solar panels into alternating current.

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