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At the National Taipei University of Technology a young student has invented a device which sprays into the room the collected air conditioning water. It allows reducing the usual losing of humidity.

The Taiwanese Government has launched on 16th December 2014 the Industrial and Incubation Center at Hsinchu Biomedical Science Park (HBSP), Hsinchu (South Taipei). The center is the third of this kind in Taiwan.

The Climate Performance Index of Taiwan has reached the 54th ranking of 58 which is considered as poor. It shows that Taiwan is not doing enough to develop renewable energy sources.

A motorcycle equipped with an innovative power supply system that combines hydrogen and a lithium battery has been successfully tested in Southern Taiwan. It can run without recharging up to 160 km.

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Malaysia ranks as Taiwan's largest source of foreign students

(Central News Agency, 23 12 2014)

There were 10,374 Malaysian students studying in Taiwan in 2013, making Malaysia the largest source of overseas students in Taiwan, according to the latest Ministry of Education (MOE) statistics. The number is nearly double the 5,248 Malaysian students who were studying in Taiwan in 2010, MOE figures show, a surge attributed by the ministry to Malaysia's relaxation of restrictions in 2012 on recognition of certificates and diplomas issued by Taiwanese schools.

A total of 78,261 foreign students were in Taiwan in 2013, up 18.53 percent from 66,026 the previous year, according to MOE statistics. If the growth continues, the number of foreign students in Taiwan could reach the government's goal of 100,000 in 2016, the MOE said.

<http://focustaiwan.tw/news/aedu/201412230014.aspx>

A/C water mister lauded at int'l student design show

(The China Post, 23 12 2014)

A graduate student at National Taipei University of Technology earned an award on 22 Dec. for inventing a device that collects water from an air conditioning unit to spray mist that keeps temperatures cool while preventing the room from losing humidity. Called the Whale, the design by student Deng Pei-chih was selected at the 2014 Taiwan International Student Design Competition as the invention with the greatest commercial potential because it keeps temperatures down while using water resources efficiently.

At the award presentation ceremony, Deng noted that the water that accumulates in air conditioners is very clean. "It would be a waste if we just dumped the water," he said. By spraying mist, the Whale also prevents indoor air from becoming too dry, said Deng, who is collecting funds for turning the device into a commercial product which he wants to sell for NT\$1,000 (US\$31.63) by summer next year.

The student design competition organized by Taiwan's Youth Development Administration selected 52 inventions out of 4,073 submissions from students in 43 countries. The Grand Prix and a cash award of NT\$400,000 for the top winner went to an animated film titled "Red Spot" produced by Huang Ruei-feng, a graduate student at National Taiwan University of Arts.

<http://www.chinapost.com.tw/taiwan/local/taipei/2014/12/23/424702/A-C-water.htm>

Winners of Taiwan biotechnology honors revealed

(Central News Agency, 18 12 2014)

Taiwan Bio-Development Foundation (TBF), a non-profit organization aimed at promoting the development of the biotechnology industry in Taiwan, announced four winners of its 2014 biotechnology chairs. The youngest winner is 40-year old Fan Shih-kang, an associate professor at the Dept. of Mechanical Engineering, National Taiwan University. He was awarded the honor for his study of chips to see if they can imitate the function of cells in the human body. If he succeeds in his research, Fan hopes the chips can be used to test the effects of new drugs on human beings, sparing animals from being used in the cruel process of drug testing.

Another winner, Lin Kuo-i, a 40-year-old research fellow at the Genomics Research Center of Academia Sinica, is devoted to the study of plasma cells which constitute the antibody and hopes it could contribute to the development of new vaccines. The third winner is 48-year old Patrick Ching-ho Hsieh, an associate research fellow of the Institute of Biomedical Sciences, Academia Sinica. Hsieh won the chair for his study of medicines which will drive stem cells to develop into heart muscle. If he succeeds, heart transplants will no longer be needed. The fourth winner, Kuo Min-liang, the 54-year old dean of the College of Life Science, National Taiwan University, is given the chair for his study of the mechanism of tumor spreading. He hopes his research can contribute to the development of new target drugs to fight cancers.

Each of the winners will be given research grants of NT\$25 million (US\$798,133) over 10 years.

<http://focustaiwan.tw/news/ast/201412180026.aspx>



HBSP industrial incubation center launched

(Taiwan Today, 17 12 2014)

The Industrial and Incubation Center at Hsinchu Biomedical Science Park (HBSP) was launched Dec. 16, underscoring the government's determination to fast-track development of the local healthcare sector.

Operated by the Industrial Technology Research Institute (ITRI) under the auspices of the Ministry of Economic Affairs (MOEA), the center is part of the third comprehensive biotech cluster in Taiwan, following Pingtung Agricultural Biotechnology Park in Pingtung County and Taiwan Orchid Plantation in Tainan City.



Along with the HBSP's Biomedical Technology and Product Research Center and HBSP Hospital, which will be opened next year and in 2018, respectively, the facility will provide comprehensive support for businesses and R&D work on high-end medical materials and new medicine. It in turn will propel local startups to join the international industrial chain.

<http://taiwantoday.tw/ct.asp?xItem=225315&ctNode=421>

Ministry of Science and Technology expands aid to young researchers

(Central News Agency, 15 12 2014)

In order to help young people live better lives, the Ministry of Science and Technology said that it will expand its aid program to young researchers. Acting Science and Technology Minister Lin Yi-bing said that beginning in January, the ministry will increase the number of scholars working at the country's universities for fewer than five years who will receive aid. It intends to raise the rate of successful aid applicants -- currently at 48.8 % -- by 5-10 %. Students pursuing doctoral degrees will be awarded NT\$10,000 (US\$318) per month by the ministry if they win research grants of more than NT\$10,000 per month from local companies, such as TSMC, Chung Hwa Telecom, and MediaTek Inc. For distinguished doctoral students, the ministry's grants could increase to NT\$20,000 per month. The number of ministry grants to college students who participate in research projects will also be increased -- from 30 percent of the applicants to 45 percent. The grants will be increased from NT\$32,000 to NT\$48,000 per year

<http://focustaiwan.tw/news/ast/201412150033.aspx>

Student develops digital handwriting software

(The China Post, 15 12 2014)

Cheng Ken, a student at Taipei Municipal Jianguo High School, has developed software that can create "your own handwriting." Cheng, who won a gold medal and a cash award of NT\$400,000 from Macronix International Co, said he began his research on "individualistic writing styles" while chatting online one day. He observed that the most commonly used Chinese characters number about 3,500, but nobody has the patience to write all of them. So, he applied the concept used in Chinese philology to divide a Mandarin Chinese character into "small units." That way, he reduced the character count to about 500 "units," but still found them too numerous and needing further simplification. He determined ultimately that most people need to write just about 300 Chinese characters, which can then be modified to create 3,500 of the most commonly used words, covering about 95 % of the vocabulary people use in daily life. Cheng has written the program for computers and plans to extend it to mobile handsets in a push to achieve his goal of letting everyone use their own handwriting electronically.

<http://www.taipeitimes.com/News/taiwan/archives/2014/12/15/2003606790>

Taiwan plans to build new oceanic research ship: ministry

(Central News Agency, 11 12 2014)

The Ministry of Science and Technology said that it plans to build a new 3,000-ton oceanic research ship that would be completed in 2018, replacing a vessel that sank off Penghu on Oct. 10. At the same time, Taiwan will also buy other research ships like the 2,000-ton ROV support vessels, in an effort to restore and strengthen its oceanic research capability, the ministry said.

The 2,700-ton RV Ocean Researcher 5 sank off Penghu Islands in stormy waters on the night of Oct. 10. Two researchers died, 24 people were injured and the monetary losses amounted to some NT\$1.555 billion (US\$49.8 million), according to the ministry. In addition, 13 research projects have been affected by the sinking of the ship, said Lin Yi-bing, acting minister of Science and Technology. He said some of the projects could be continued by Taiwan's smaller research ships, but consideration is being given to the idea of leasing American or Japanese research vessels to resume a continental shelf project, a geothermal energy and gas hydrate project, and a Geotrace project. Meanwhile, Li Yun-wan, deputy director of the Maritime and Port Bureau, said an initial investigation found that the research ship had sunk because of negligence on the part of the captain and crew. The case will be referred to a maritime committee that deals with ship accidents, and the review may be completed by next March, Li said.

<http://focustaiwan.tw/news/ast/201412110026.aspx>

NTU grabs top prizes for education innovation

(Taiwan Today, 11 12 2014)

PaGamO, designed by National University associate professor Benson Yeh, won the overall and top e-learning prizes at the inaugural Wharton-QS Stars Awards: Reimagine Education Dec. 9 in Philadelphia. Yeh attributed the



success to the efforts of NTU electrical engineering and computer science students, as well as BoniO, the workshop he organized to enhance education.

Launched during the 2012 winter vacation, PaGamO now boasts around 30,000 players worldwide. Yeh said his inspiration for the game came from opening a massive open online course on probability in Chinese. The name PaGamO came from the Taiwanese pronunciation of "play the game and learn," Yeh said. It was designed to help players to amass virtual land, wealth and resources by answering questions correctly.

According to NTU, the PaGamO platform has been applied in a range of educational contexts, such as teaching probability and offering mathematical lectures to K-12 students in the US. It has also been adopted by a Fortune 500 company to teach management and leadership. PaGamO shares top honors with the University of Colorado at Boulder, whose PhET Interactive Simulations uses animations to help students learn fundamental scientific principles. The two schools will share a monetary prize of US\$50,000.

The competition was sponsored by the Wharton School of Business at the University of Pennsylvania and QS Quacquarelli Symonds, publisher of the QS World University Rankings, to promote innovation in education. Entries came from 427 universities and enterprises across 43 countries. They were judged by a panel of 25 international experts.

<http://www.taiwantoday.tw/ct.asp?xItem=225094&CtNode=419>



Taiwan wins 11 Golden Pin Best Design Awards

(Central News Agency, 11 Dec 2014)

Eleven Taiwan entries for the annual Golden Pin Design Award won recognition on 11 Dec., along with 10 designs from other parts of the Chinese-speaking world. The 11 winning Taiwanese entries included the Zenbook UX301 (Asustek Computer Inc.); espresso urban bike (Gearlab Co.); 777-300ER Cabin Interior Design (Ray Chen International, China Airlines); Heartwarming in VVG Lifestyle Village (VVG International Co.), Smart Projector (Quanta Computer Inc.) and Hong Silk (Sophie Hong). Five of the other 10 winning designs were from China, three from Hong Kong and one each from Malaysia and Singapore, the organizers announced at an award ceremony at Songshan Cultural and Creative Park in Taipei.

A record 1,901 entries were submitted to the annual competition this year by designers from Taiwan, China, Singapore, Malaysia and other countries. This is the first year that entries were received from outside Taiwan. The organizers said 416 entries were awarded the Golden Pin Design Mark and were in the running for the Best Design Award. The Golden Pin Design Award is issued in four categories -- product design, visual communication design, packaging design and interior design. The award was introduced by the Ministry of Economic Affairs' Industrial Development Bureau to recognize innovative designs in the Chinese-speaking world and is implemented by the Taiwan Design Center.

<http://focustaiwan.tw/news/aedu/201412110035.aspx>

Kaohsiung hospital gives 'heaviest man in Asia' second chance at life

(The China Post, 11 Dec 2014)



A Kaohsiung man was discharged from E-Da Hospital in the city after recovering from gastric bypass surgery to help reduce his weight. Dubbed "the heaviest man in Asia," Lee Chih-cheng weighed in at 261 kilograms when he was admitted to hospital Nov. 11. Doctors at E-DA Hospital performed the gastric bypass procedure, which reduces the functional volume of the stomach and reroutes the small intestines to allow food to bypass part of the digestive system. Within a month of the surgery, Lee had lost 50 kg and his weight had dropped to 211 kg. Lee's doctors said they expect him to regain mobility and be able to walk unassisted when his weight falls to 150 kg.

The initial phase of the gastric bypass procedure has decreased the functional volume of Lee stomach to about 100 cubic centimeters and thus limit his appetite for food. Long-term monitoring is required before a second round of surgery that will be possible when Lee reaches 150 kg, Huang said, adding that the ideal weight for the patient is 90 kg.

<http://www.chinapost.com.tw/taiwan/local/kaohsiung/2014/12/11/423808/Kaohsiung-hospital.htm>

Taiwan tops Asia as knowledge-based economy

(Taiwan Today, 10 Dec 2014)



Taiwan was rated first among Asian economies in using knowledge-based industries to drive economic growth, according to the "Innovative Asia: Advancing the Knowledge-based Economy" report released in September by the Asian Development Bank. Scoring 8.77 out of 10, Taiwan bested Hong Kong, which had a score of 8.52, Japan with 8.28, Singapore with 8.26 and South Korea with 7.97. The country also beat the average 8.25 for all members of the Organization for Economic Cooperation and Development, and was well ahead of the 4.39 average for the Asia-Pacific region. In the study, 28 Asian economies were evaluated on 12 key performance indicators in four categories: Economic Incentive and Institutional Regime, Education and Skills of Population, Innovation and Technological Adoption System as well as Information and Communication Technology Infrastructure. With scores of between 7.77 and 9.38, Taiwan ranked No. 1 in ICT infrastructure, ahead of Hong Kong; No. 2 in education, behind South Korea, as well as in innovation, where it was next only to Singapore; and No. 3 in economic incentive, trailing only Singapore and Hong Kong.

<http://www.taiwantoday.tw/ct.asp?xItem=225041&CtNode=419>

<http://www.wantchinatimes.com/news-subclass-cnt.aspx?id=20141211000122&cid=1102&MainCatID=0>

Taiwan's climate policy labeled 'poor' in report

(Taipei Times, 09 12 2014)

Germany-based nonprofit organization Germanwatch and Climate Action Network Europe yesterday issued the results of its Climate Performance Index — a ranking of 58 nations based upon their commitment to environmental protection — in which Taiwan ranked 54th, with the nation's climate policy marked as "very poor" by the report. The index was announced to coincide with the ongoing UN Framework Convention on Climate Change (UNFCCC) in Lima which began on 1-12 Dec., to highlight environmental protection.

Taking the form of a bar graph, the index showed Taiwan's climate policy bar to be significantly shorter than that of China and South Korea. The ranking starts from No. 4 because "no country is doing enough to prevent dangerous climate change," organization officials said. The data showed that Taiwan's production capacity is relatively low and that it is not doing enough to develop renewable energy sources. The nation scored 46.81 out of 100, and its performance was graded "very poor" in the annual report. Among other Asian nations, South Korea was ranked 55th, while Japan and Singapore dropped from No. 50 and No. 48 to No. 53 and No. 50 respectively.

<http://www.taipeitimes.com/News/taiwan/archives/2014/12/09/2003606336>

Taiwan shines in invention fairs in Hong Kong, Kuwait

(Central News Agency, 06 12 2014)

Taiwan outperformed other countries at two invention shows, one in Hong Kong and one in Kuwait. Taiwanese inventors took home 52 golds, 21 silvers and five bronzes at the 2014 IDC International Invention and Design Fair in Hong Kong, which ran from 4 Dec. and wrapped up 6 Dec. Among the winners, a solar-powered street lamp-like device that can prevent smog and kill germs won one gold and one special award. The device makes use of ultraviolet light to kill germs while also purifying the air, helping to ensure cleaner air if installed every five kilometers along a road.

In Kuwait, Taiwan garnered 19 awards and two special awards in the International Invention Fair of the Middle East, which opened on 4 Dec. and brought 150 inventors from 25 countries. A tumbler-like container that keeps tea leaves and water separate, removing the need for both a teapot and cup, attracted the most attention and netted a gold and a special prize. The cup, which features a patented exhaust button to ensure that pressure changes will not cause the drink to pop when opened.

<http://focustaiwan.tw/news/ast/201412060022.aspx>

ITRI to license flexible display patents to start-up firm

(Central News Agency, 05 12 2014)

Taiwan's state-funded Industrial Technology Research Institute (ITRI) signed a patent and trademark licensing agreement with FlexUP Technologies Corp. for the development of flexible display materials. ITRI said it has succeeded in developing a flexible universal panel (FlexUP) display technology, which integrates a silicon-based transistor array on a pliable transparent polyimide substrate to fabricate any flexible thin-film device. The licensing deal is expected to help FlexUP Technologies -- a start-up company that spun off from ITRI in August -- to tap into fast-growing market segments such as wrist-worn devices, smart handheld devices and flexible medical sensors, according to ITRI. ITRI Chairman Tsay Ching-yen said at the signing ceremony that the establishment of FlexUP Technologies, the fifth spin-off from ITRI this year, suggests that Taiwan's display industry has officially entered the arena of flexible material. FlexUP Technologies will be "the first dedicated manufacturer of flexible substrate material in Taiwan," with products that are expected to have broad applications in the e-paper, touch panel, digital X-ray and OLED lighting fields, Tsay said.

<http://focustaiwan.tw/news/ast/201412050014.aspx>



Asia Beat start-up expo kicks off in Taipei

(Central News Agency, 01 12 2014)

The opening of the inaugural Asia Beat exhibition brought more than 500 start-ups and venture capitalists from across Asia and the world to gather in Taipei. Focused on "Fund Raising and Market Entry," the two-day expo will showcase innovative products developed by companies from Taiwan, South Korea, Japan, China and Singapore, according to Taiwan's government-funded Institute for Information Industry (III), which is organizing the event. Taiwanese start-up KalaVision, for example, showed off its "Alfred" device that turns unused smartphones into surveillance cameras. Keynote speakers were expected to discuss popular topics such as information technology trends in South Korea over the past decade, investment targets of Chinese venture capitalists and how to acquire funds in Japan, III said. III President Wu Ruey-beei said his institute has been concentrating on promoting the start-up community in Taiwan and bringing local companies into the international market. Participation in the expo from experienced global start-ups can help Taiwan serve as "the starting point to connect Asia's start-up communities," Wu said in opening remarks at the event. In addition to product displays and keynote speeches, the top 30 Asian start-up companies are participating in an event called the Asia Beat Start-up Battle, with the final results to be announced on the second day of exhibition. The winning team will receive a cash prize of NT\$300,000 (US\$10,000) from Samsung's Taiwan branch, while two members of the winning team will get three months of free workspace at Foxconn's start-up incubator center.



<http://focustaiwan.tw/news/ast/201412010008.aspx>

New electric motorbike makes successful test run

(Central News Agency, 01 12 2014)

A motorcycle equipped with an innovative power supply system that combines hydrogen and a lithium battery made its maiden trial run in southern Taiwan, according to its developer, who branded the experiment a success. The motorbike, named "Fei Ma (Pegasus) No. 1," was developed and fabricated by a research team led by Lai Wei-hsiang, a professor in aeronautics and astronautics at National Cheng Kung University, in cooperation with local enterprises, the school said. The vehicle has been converted from a conventional electric motorbike with a lithium battery system, according to Lai's team, which explained that it has added a 3-kW fuel cell on hydrogen and two compressed hydrogen storage cylinders to the vehicle to build a power system that runs by transmitting hydrogen energy to the fuel cell. The fuel cell then supplies power to the lithium battery, which in turn powers the engine, activating the motorbike, the research team said, touting that this integrated power supply system prolongs the battery's lifespan and gives the vehicle high endurance. It assessed that running at a speed of 40 kilometers per hour, the overall range of the "Fei Ma No. 1" will reach more than 160 km. During its test run, the motorbike easily completed a round-trip drive of over 80 km between Kaohsiung's Alian District and Tainan's Hsinhua District, Cheng Kung University said.

<http://focustaiwan.tw/news/aeco/201412010035.aspx>

Taiwan develops purple coneflower-based health supplements

(Taiwan News, 26 11 2014)

Taiwan has succeeded in developing health food supplements made from locally-grown purple coneflowers since it started growing the flowers native to North America over a decade ago, according to a researcher serving at the Cabinet-level Council of Agriculture (COA). The flowering plant, which goes by the scientific name *echinacea purpurea*, is common in Europe and North America, where it has been used to make health food due to a variety of properties proven to help raise immunity in humans, said Chen Yu-hsin from the Taichung District Agriculture Research and Extension Station. Specifically, the coneflower-based foods include phenolic acid, an antioxidant, and polysaccharides. Listed as one of the most profitable health crops in the EU and the US, the purple coneflower has reached a global production value of over US\$1 bio. globally, the researcher said. Eying the lucrative market, the COA imported three separate species of the flower from Canada over a decade ago for breeding in Taiwan. The plant from the colder region has now adapted to the Taiwan weather, and farmers are able to harvest it each summer after spreading seeds in the winter, according to Chen. The COA has contracted farmers in Hualien and Nantou to grow the crop for production in tea drinks, health supplements and extracts, he said. The council has also transferred the production technology to four local





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companies and authorized them to develop more products, he said, noting that some products have already been put on the market.

http://www.taiwannews.com.tw/etn/news_content.php?id=2630356