



**Press Review Taiwan
Science, Technology and Education**



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Science / Technology	2
Taiwan-developed app finds smartphone use impact on sleep, health (Focus Taiwan, 1.4.2019).....	2
Taiwanese lab develops 'mouse avatars' to help cancer patients (Focus Taiwan 2.4.2019).....	2
Taiwan ranks No.1 in IC material market for 9th straight year (Focus Taiwan 3.4.2019)	2
ITRI's road safety technology wins silver at Edison Awards (Focus Taiwan, 5.4.2019)	2
Taiwan-participated global project to reveal first black hole image (Focus Taiwan, 9.4.2019)	2
Taiwan joins global effort to reveal first image of black hole (Focus Taiwan, 10.4.2019)	2
Taiwan's ITRI, Hon Hai on Derwent Top 100 Global Innovators list (Focus Taiwan, 12.4.2019)	2
Facebook opens new headquarters in Taiwan (The China Post, 12.4.2019)	2
Taiwan develops Asia's first ASF rapid test kit (Focus Taiwan, 13.4.2019)	3
FormoSat-7 satellite group departs Taiwan for U.S. (Focus Taiwan, 15.4.2019).....	3
Foxconn, HTC made Forbes' 'Blockchain 50' list (Taiwan News, 18.4.2019).....	3
HTC backs US\$50 million fund for new blockchain startup (Focus Taiwan, 18.4.2019)	3
Taiwan makes advance in biofuel production technique (Focus Taiwan, 19.4.2019)	3
TSMC takes lead in 8 advanced technologies in last 2 years (Focus Taiwan, 23.4.2019).....	3
Taiwan develops new concrete for high-rise buildings (Focus Taiwan, 23.4.2019)	3
Taiwanese data buoys to improve typhoon forecast accuracy (Focus Taiwan, 25.4.2019).....	3
U.S.-based Taiwan scientist finds new solar energy solutions (Focus Taiwan, 26.4.2019).....	4
HTC to unveil 2nd generation Blockchain phone later this year (Focus Taiwan, 27.4.2019)	4
Coral spawning off eastern Taiwan recorded for first time (Focus Taiwan, 29.4.2019)	4
Education.....	5
Three Taiwanese universities make top 100 in first impact rankings (Taiwan News, 5.4.2019)	5
Taiwan ramping up efforts to recruit foreign English teachers (Taiwan News, 8.4.2019)	5
Students speak out against fake news, demand fact-checking (Focus Taiwan, 13.4.2019)	5
College fees to rise 2.17%: education ministry (Focus Taiwan, 22.4.2019)	5



Science / Technology

Taiwan-developed app finds smartphone use impact on sleep, health (Focus Taiwan, 1.4.2019)

Taiwan researchers have devised an app called "Rhythm," which shows that the use of smartphones before bed has a great impact on sleep by delaying circadian rhythms, reducing sleep times and as a result, jeopardizing health. Utilizing a questionnaire and the Rhythm app to record the smartphone behavior of 61 people aged 20-56 over 14 days, a research team from Taiwan's National Health Research Institutes (NHRI) discovered that one hour of increased smartphone use per day delays circadian rhythm by 3.5 minutes and decreases total sleep time by 5.5 minutes.

Taiwanese lab develops 'mouse avatars' to help cancer patients (Focus Taiwan 2.4.2019)

The National Laboratory Animal Center (NLAC) announced April 1 that it has successfully developed "mouse avatars," a method to pre-test cancer treatments in mice and guide doctors in tailoring treatment options for each patient. To treat cancer with more precision, the NLAC first developed mice with "advanced severe immunodeficiency"(ASI) in 2015, which provided a vivo model -- one that takes place outside a patient's body -- to study human tumor tissues, according to NLAC project manager Wang Jui-ling.

Taiwan ranks No.1 in IC material market for 9th straight year (Focus Taiwan 3.4.2019)

Taiwan ranked as the largest semiconductor material market in the world for the ninth consecutive year in 2018, according to data released April 3 by the global industry association SEMI. The SEMI data shows that in Taiwan, the market for semiconductor materials, comprised of materials for wafer production and integrated circuit packaging and testing use, totaled US\$11.45 billion in 2018, up 11 percent from a year earlier.

ITRI's road safety technology wins silver at Edison Awards (Focus Taiwan, 5.4.2019)

The Industrial Technology Research Institute (ITRI), a leading research institution in Taiwan, won a silver medal April 4 at the prestigious Edison Awards in New York for its road safety technology dubbed "iRoadSafe." The device is a road safety system that integrates advanced roadside sensing technologies such as radar and cameras, to detect moving objects on the road and broadcasts extensive vehicle-to-vehicle basic safety messages through roadside units.

Taiwan-participated global project to reveal first black hole image (Focus Taiwan, 9.4.2019)

An international astronomical project in which Taiwan has been participating will release the world's first supermassive black hole image April 10, Academia Sinica said April 9. The Event Horizon Telescope (EHT) observing campaign, comprising 13 research units from around the world, including Academia Sinica, will release the image, said Chou Mei-yin, a scientist for the institution's education and public outreach.

Taiwan joins global effort to reveal first image of black hole (Focus Taiwan, 10.4.2019)

An international astronomical project, in which Taiwan has been participating, on April 10 released the world's first picture of a black hole, a region of space with a gravitational field so intense that not even light can escape. The Event Horizon Telescope (EHT) observation campaign, comprising 13 research units from around the world, including Taiwan's Academia Sinica, captured the image in the heart of the massive distant galaxy Messier 87, some 55 million light-years from Earth.

Taiwan's ITRI, Hon Hai on Derwent Top 100 Global Innovators list (Focus Taiwan, 12.4.2019)

The Industrial Technology Research Institute (ITRI) and Hon Hai Precision Industry Co., also known as Foxconn, were named among the Derwent Top 100 Global Innovators 2018-2019 and were presented with awards in Taipei on April 12. It was the third time since 2014 that the ITRI, Taiwan's top technology research and development institute, has been honored, making it the most awarded research institute among the top 100 in Asia.

Facebook opens new headquarters in Taiwan (The China Post, 12.4.2019)

Facebook Inc. opened a new Taiwan headquarters in Nan Shan Plaza, in the Xinyi District of Taipei April 11. Taiwan is a very important market to Facebook and the relocation reflects the company's confidence in the future of the local market by laying down a marker for its long-term development in Taiwan, said Dan Neary, Asia-Pacific president at the California-based social media and networking service company.



Taiwan develops Asia's first ASF rapid test kit (Focus Taiwan, 13.4.2019)

A Taiwanese biotechnology company said April 13 that a rapid test kit it has developed for African swine fever (ASF) has been recognized by the World Organization for Animal Health (OIE), making it the first such test provider in Asia. According to Excelsior Bio-System (EBS), Inc., its kit can diagnose in 10 minutes if a live hog has contracted ASF, even if the animal is still in the incubation period, through detecting the presence of antibodies against the ASF virus protein p30.

FormoSat-7 satellite group departs Taiwan for U.S. (Focus Taiwan, 15.4.2019)

Taiwan's new satellite constellation, FormoSat-7/COSMIC-2, was flown out of the country April 15 for a scheduled launch in the United States this summer. FormoSat-7, the second joint development by Taiwan and the U.S., is scheduled to be launched from Kennedy Space Center on June 22. It will replace FormoSat-3, the first Taiwan-U.S. collaborative space program, with state-of-the-art instruments and equipment that collect meteorological, ionospheric and climate data.

Foxconn, HTC made Forbes' 'Blockchain 50' list (Taiwan News, 18.4.2019)

Forbes announced its first ever 'Blockchain 50,' a list of 50 companies spearheading blockchain technologies worldwide on April 16. Taiwan's Foxconn and HTC are on that list. Forbes' editors chose among a list of companies that use blockchain platforms in business operations, had at least US\$ 1 billion of valuation or sales, and those having operations in the United States.

HTC backs US\$50 million fund for new blockchain startup (Focus Taiwan, 18.4.2019)

Taiwan-based HTC Corp. has said it will support a US\$50 million venture capital fund for a new blockchain startup, Proof of Capital, with the aim of taking cryptography technology to the wider public. HTC's chief crypto officer Phil Chen, who is in charge of the company's Exodus blockchain phone, said in a recent statement that the partnership will focus on defining the standards and interactions for the next-generation internet and bringing mobile and hardware expertise to its portfolio companies.

Taiwan makes advance in biofuel production technique (Focus Taiwan, 19.4.2019)

Academia Sinica April 19 unveiled a technique that facilitates the production of more biofuel using cryo-electron microscopy, a technology that enables researchers to better capture the structure of enzymes -- biological catalysts that accelerate the process by which biomass is transformed into biofuel. Considered a source of renewable energy, Biofuels include such fuels as ethanol and biodiesel that are made from biomass materials, according to the U.S. Energy Information Administration.

TSMC takes lead in 8 advanced technologies in last 2 years (Focus Taiwan, 23.4.2019)

Taiwan Semiconductor Manufacturing Co. (TSMC), the world's largest contract chipmaker, said it has taken the lead over its peers in eight crucial technologies over the past two years. TSMC said the eight firsts include the first for the chipmaker to complete the advanced 5 nanometer (nm) design infrastructure, the first to start commercial production of chips made on the 7nm Extreme Ultraviolet EUV process, the first to launch the 7nm automotive platform, and the first to begin mass production of chips made on the 7nm process.

Taiwan develops new concrete for high-rise buildings (Focus Taiwan, 23.4.2019)

Taiwan's National Center for Research on Earthquake Engineering (NCREE) has successfully developed a new type of composite reinforced concrete (RC) that is up to 2.4 times stronger than traditional RC and allows the height of residential buildings to be doubled. Lin Ker-chun, a research fellow at the institute, introduced the new RC to the press April 23, noting that Taiwan is the second country in the world to develop high-strength RC, following Japan.

Taiwanese data buoys to improve typhoon forecast accuracy (Focus Taiwan, 25.4.2019)

An unprecedented dataset collected in the Northwest Pacific using Taiwanese-designed ocean observation buoys, will help improve future typhoon forecast accuracy, National Taiwan University (NTU) said April 25. The two buoys, named NTU1 and NTU2, are the second generation of environment-observing and data-capturing devices that have been developed and improved upon since early 2015 by a research team led by Yang Yiing-jang, an NTU associate professor in oceanography, according to the university.



U.S.-based Taiwan scientist finds new solar energy solutions (Focus Taiwan, 26.4.2019)

Caffeine may hold the key to making perovskite solar cells commercially viable by improving their thermal stability, according to the latest findings by American-based Taiwanese scientist Yang Yang and his research team at UCLA. Perovskite solar cells are believed to be the future of solar power because they are more energy efficient when compared to traditional silicon solar cells and are cheaper to produce.

HTC to unveil 2nd generation Blockchain phone later this year (Focus Taiwan, 27.4.2019)

Taiwan-based smartphone brand HTC Corp. plans to release a second generation Blockchain phone in the second half of 2019, with the aim of generating more sales in the competitive global market, according to market analysts. At a tech forum in Taipei on April 26, HTC Chief Decentralized Officer Phil Chen who is in charge of the company's blockchain phone development, said the new phone will carry applications for cryptocurrency transactions, like the first-generation device, but will also allow digital asset management.

Coral spawning off eastern Taiwan recorded for first time (Focus Taiwan, 29.4.2019)

The phenomenon of coral reefs simultaneously releasing their tiny eggs and sperm into the ocean, known as coral spawning, has been recorded off Taiwan's eastern coast for the first time, according to a team from Academia Sinica. The coral spawning, which creates the appearance of an underwater blizzard with billions of colorful flakes, takes place once a year on cues from the lunar cycle and water temperature and often coincides with the birthday of the sea goddess Matsu in the spring.



Education

Three Taiwanese universities make top 100 in first impact rankings (Taiwan News, 5.4.2019)

Hualien-based Tzu Chi University led 12 Taiwanese universities in making the Times Higher Education's first-ever global university impact rankings published April 4. The University of Auckland topped the first global ranking to measure institutions' social and economic impact, with a score of 97.2 in the survey that covered 462 universities from 76 countries, according to Times Higher Education's website.

Taiwan ramping up efforts to recruit foreign English teachers (Taiwan News, 8.4.2019)

Taiwan is intensifying its efforts to attract foreign English teachers in anticipation of greatly increased demand as the government continues to strive to reach the goals set out in its "bilingual country" policy. To achieve former Premier William Lai's plan to make Taiwan a Chinese-English bilingual country by the year 2030, the Ministry of Education (MOE) is planning to train 5,000 elementary and junior high school English teachers by 2030. The MOE estimates that 2,000 teachers should complete training by 2022.

Students speak out against fake news, demand fact-checking (Focus Taiwan, 13.4.2019)

A group of university students joined forces April 13 to speak out in a campaign against fake news, displaying a poster-sized letter of commitment that calls on media outlets in Taiwan to adhere to the principle of fact-checking in their reporting. The campaign was organized by a coalition of over 50 student groups from universities nationwide, led by the student associations of National Taiwan University (NTU) and National Chengchi University (NCCU).

College fees to rise 2.17%: education ministry (Focus Taiwan, 22.4.2019)

Basic fees for tuition and other items charged by colleges and universities for the 2019-2020 school year will rise by 2.17 percent, a five-year record high, the Ministry of Education announced April 22. The ministry came up with the increase after taking into account the annual increases in the Consumer Price Index (CPI), employee salaries and disposable household incomes.