



31 August 2014

**Science, Technology and Education News from Taiwan
Number 08 — August 2014**

The Taiwanese PC maker Acer Inc. has brought on the market the first low cost Chromebook laptop which is powered by a mobile chipset. It should be in September 2014 on the Markets in Europe, North America and Asia Pacific.

At the international convention for hackers and computer security in Las Vegas the Taiwanese student team has won the second price just behind the US team.

Taiwanese Universities feel the birth rate falling having a shortfall of students. The Minister of Education is trying to establish effective mechanism with the purpose to either merge Public Universities or even to close.

In the August Edition of Spain-based Webometrics Ranking of World Universities 11 Taiwanese universities are being listed. The National Taiwan University has the highest ranking at 35th.

The renowned Taiwanese plant scientists, Mrs. Su-May Yu, Research Fellow of the Institute of Molecular Biology, Taipei and Mr. Tuan-Hua David Ho, Research Fellow of the Institute of Plant and Microbial Biology, Taipei have won awards in July 2014 from the American Society of Plant Biologists, Portland USA. Yu gained international recognition with her work on rice transformation and Ho for his long-term contribution to plant biology and service to the American Society of Plant Biologists.

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1. Lack of innovation – report by David Hong, President of Taiwan Institute of Economic Research (TIER)
(Central News Agency, 30 07 2014)

David Hong, President of Taiwan Institute of Economic Research (TIER) indicated that *Taiwan's projected annual economic growth of 3.5-4 % over the next few years could be "hollow" because the declining added value in the manufacturing sector.* He said that the government's long-term policy of pursuing exports at the expense of domestic consumption and pouring resources into capital-intensive industries has backfired because that approach does not help create employment or increase wages and profits are falling due to a lack of innovation. Compared to neighboring countries, the added value of Taiwan-made products has been declining from 26.7 % in 2003 to 20.3 % in 2012. These factors are threatening Taiwan's economic development, which could result in hollow growth, meaning that while the data might look good, there would be no real substance, Hong said. He suggested that Taiwan's industrial manufacturing sector adjust to global demand and pay attention to the development of robotics and 3-D printing technology, which he expects will play a key role in the future manufacturing model that helps lower production costs. The government should also attract more white-collar foreign workers, he said.

<http://focustaiwan.tw/news/aeco/201407300022.aspx>

2. NCTU business center named top Asian incubator

(Taiwan Today, 07 08 2014)

National Chiao Tung University Center of Entrepreneurship and Incubation was named incubator of the year by the Asian Association of Business Incubation at its general assembly Aug. 5 in Taipei City.

This is the second consecutive year a Taiwan institution has won the top award, the Ministry of Economic Affairs said, after Nangang Software Incubator in 2013. Previously, the AABI awarded the Incubation Center of Hsinchu City-based Industrial Technology Research Institute a prize for excellence in 2005.

"Founded in 1997, the NCTU center has provided a well-rounded entrepreneurship and incubation platform for local businesses," the AABI said. "To date it has helped more than 130 startups launch and 19 firms establish footholds in Taiwan's highly competitive science parks."

The Hsinchu City-based center beat out six strong contenders from Hong Kong, India, South Korea, Vietnam and mainland China. Medimaging Integrated Solution Inc., a digital hand-held diagnostic solution provider and NCTU alumnus, was also awarded the AABI Torch Award for Internationalization.

The general assembly was held in conjunction with the MOEA's International Co-Incubation Conference, with the aim of integrating resources and advancing entrepreneurship in the Asia-Pacific region.

The AABI was established in 2002 to enhance business incubation by facilitating information exchange among Asian incubators, clients and relevant organizations. Members hail from Taiwan, Hong Kong, India, Japan, Malaysia, New Zealand, Singapore, South Korea and mainland China.

<http://www.taiwantoday.tw/ct.asp?xItem=220413&ctNode=445>



NCTU President Wu Yan-hwa (center), AABI President Kim Yeung-shik (right), TRI Chairman Tsay Ching-yen (left)

3. Scientist honored for her work in nanomedicine

(Taipei Times, 07 08 2014)

Chung Yuan Christian University's R&D Center for Biomedical Technology adjunct chair professor Esther Chang (張惠平) has been honored by the American Society for Nanomedicine with a lifetime achievement award for her contributions to promoting the development of nanomedicine, the school authority said on Monday.

The school said Chang has nearly two decades of experience in developing anti-cancer technologies, with more than 140 scientific publications and 108 international patents under her belt.

A new nanotechnology-based cancer treatment developed by Chang, which uses nanoparticles as a drug-delivery system, is not only able to deliver anti-cancer therapeutic agents to the targeted tumor cells more accurately and efficiently, but also minimizes the harmful side effects of cancer therapies by enabling healthy cells to be spared, the school said.



Chung Yuan Christian University's R&D Center for Biomedical Technology adjunct chair professor Esther Chang (張惠平)



"Chang's innovative research on the nano-delivery system has been financially supported by the US' National Institutes of Health, the nonprofit National Foundation for Cancer Research and other private biotechnology firms," the school said. "The US Food and Drug Administration has approved the first stage clinical trial of the novel cancer treatment."

The school quoted Chang as saying that her joy in seeing the treatment enters the human clinical trial stage was beyond description, as it brought her one step closer to her dream of developing an effective and cost-efficient anti-cancer therapy.

"Members of our research and development center unanimously agree that the accolade is well-deserved, and all look forward to witnessing Dr Chang's next medical breakthrough," the school said.

<http://www.taipeitimes.com/News/taiwan/archives/2014/08/07/2003596862>

4. Medical team develops new reactive test paper for home

(China Post, 15 08 2014)

A Taiwanese medical team yesterday published their latest research, saying that with the cooperation of Hokkaido University, they have succeeded in developing a method utilizing a special piece of reactive paper to test for bullous pemphigoid (BP), a fatal skin disease, which enables people to check for the disease by themselves in a convenient and inexpensive way.

Cheng Chao-min, a professor at the Institute of Nano-Engineering and MicroSystems at National Tsing Hua University (NTHU), said that the reason the research took place is because they wanted to develop an inexpensive and convenient tool for regions that lack medical resources. He further stated that it was pregnancy test kits that inspired them to pursue this avenue of research.

Through the efforts of the NTHU, the National Cheng Kung University Hospital (NCKU) and Hokkaido University, the method is proven to be effective in diagnosing BP.

In addition, the reactive paper can also be used in detecting diabetic retinopathy. According to Cheng, the research team hopes to work on developing more kinds of reactive paper to diagnose other diseases like blistering autoimmune diseases or fatal skin afflictions in the future.

<http://www.chinapost.com.tw/taiwan/national/national-news/2014/08/15/414908/Medical-team.htm>

5. Taiwan-Philippines science, technology meeting opens in Manila

(Central News Agency, 19 08 2014)

The fourth joint science and technology commission meeting between Taiwan and the Philippines opened Tuesday, 19th August in Manila, during which officials from the two countries discussed cooperation to promote exchanges in technology.

The meeting was co-hosted by Minister of Science and Technology Simon Chang, who served as head of the Taiwanese delegation, and Amelia Guevara, undersecretary for research and development under the Philippine Department of Science and Technology.

The meeting's agenda included discussions on cooperative research projects on oceans, typhoons and earthquakes, as well as on bilateral technology personnel exchange programs.

For many years, Taiwan has been helping the Philippines to develop its high-tech industries and disaster prevention measures, said Taiwan's representative to the Philippines Raymond Wang, citing as an example training programs aimed at cultivating young talent in science and technology. Other officials attending the meeting included Antonio Basilio, the Philippines' representative to Taiwan, and Manila Economic and Cultural Office (MECO) Chairman Amadeo R. Perez, Jr.

<http://focustaiwan.tw/news/ast/201408190024.aspx>

6. Acer unveils world's first Nvidia-based Chromebook laptop

(Central News Agency, 12 08 2014)

Taiwanese PC maker Acer Inc. unveiled on Tuesday the world's first Chromebook laptop powered by a mobile chipset from Nvidia Corp. to expand its line of Web-centric computers. The Acer Chromebook 13 is equipped with a 13.3-inch display and a Nvidia Tegra K1 quad-core processor, which incorporates an advanced graphics processing unit that can deal with "rich and detailed graphics," the company said in a press release. The Tegra K1, unveiled at the Consumer Electronics Show in January this year, is the industry's first mobile chip with 192 graphics cores. The new laptop, which runs on Google Inc.'s Chrome operating system, features a streamlined design, with the unit measuring only 17.9 millimeters thick and weighing only 1.5 kilograms. The Acer Chromebook 13 will start shipping later this month and will be available in European, North American and Asia-Pacific markets with a starting price of US\$279.



Though Chromebooks only represented about 10 percent of Acer's notebook sales in the first half of the year, Acer CEO and President Jason Chen said in late July that the company's shipments of the niche notebooks had increased 70 percent year-on-year so far this year. Acer said the launch of the Chromebook 13 will enhance its dominant position in the category, as the company had a leading position in the U.S. Chromebook market and the second biggest market share globally in the first quarter of 2014. According to data from market research firm NPD Group, Acer had a 46.7 percent share of the U.S. Chromebook market in the first three months of 2014. Based on Google's popular web browser, the Chrome operating system offers an always-connected experience that relies heavily on information and processing power in the cloud. The first Chromebook models were released in 2011 by South Korea's Samsung Electronics Co. and Acer. According to estimates by research firm Gartner Inc., global shipments of Chromebooks will increase 79 percent year-on-year to 5.2 million units in 2014, and will nearly triple to 14.4 million units by 2017. As for Nvidia, the partnership with Acer marks the chipset maker's first step into the fast-growing Chromebook market, at a time when most chip maker are looking for new sources of sales growth amid a sluggish PC industry.

<http://focustaiwan.tw/news/ast/201408120006.aspx>
<http://focustaiwan.tw/news/ast/201408210027.aspx>

7. Asustek mulling successor to unlaunched smartwatch

(Central News Agency, 12 08 2014)

Even though Asustek Computer Inc. has not yet launched its first smartwatch, the Taiwanese PC maker is already considering its next wearable device, thanks to its high market expectations. Asustek CEO Jerry Shen told an investors' conference on 12th August 2014 that his company could debut its smartwatch as early as September at the IFA electronics trade show in Germany, with aggressive marketing efforts to promote the device. He said the Asustek smartwatch has been well-received by Google Inc., which selected Asustek as one of its hardware partners for the Android Wear initiative in March, as the new watch looks better than competitors' products but comes with a relatively low price tag. Android Wear is a version of Google's Android operating system designed specifically for wearable devices. The U.S. search giant said it is working with several hardware manufacturers and chipmakers to build new devices based on Android Wear. "We're dreaming big about the future of wearable devices, but the dream will not come true this year or in the first half of next year because the market demand has not picked up," Shen said at the investors' conference. This means that the wearable business is not expected to contribute greatly to Asustek's revenue during its first smartwatch's life cycle over the next nine months, and the company is likely to release a second-generation model of the watch, Shen noted. He did not give specifics on the first Asustek smartwatch or the development of the second-generation watch. Asustek's wearable business marks its attempt to jump onto a bandwagon already occupied by Sony Corp.'s SmartWatch and Samsung Electronics Co.'s Galaxy Gear.

In October 2013, Japan-based Sony launched its new SmartWatch 2, a water-resistant watch that connects to Android devices via Bluetooth or near-field communication (NFC) wireless technology. South Korea's Samsung also debuted new smartwatches, the Gear 2 and Gear 2 Neo, at the Mobile World Congress (MWC) trade fair in February this year. According to research firm Canalsys, smartwatch shipments are forecast to reach 8 million this year and could nearly triple to more than 23 million units by 2015 and 45 million by 2017.

<http://focustaiwan.tw/news/ast/201408120038.aspx>

8. James C. Liao elected to Taiwan's Academia Sinica

(UCLA University of California, Los Angeles, 13 08 2014)

UCLA's Ralph M. Parsons Foundation Chair in Chemical Engineering at the Henry Samueli School of Engineering and Applied Science, has been named to Taiwan's Academia Sinica, Taipei, the preeminent academic institution in the Republic of China. Liao was one of 18 new academicians and two new honorary academicians that the academy announced on July 4 at its biennial convention. Liao, chair of the chemical and bio molecular engineering department, was elected to in the academy's Life Sciences Division.

Liao uses metabolic engineering and synthetic biology techniques in his research. He focuses on developing the biological production of the liquid fuel isobutanol while simultaneously consuming carbon dioxide, a greenhouse gas. This series of reactions, in essence turning exhaust into fuel, is powered directly by sunlight. He has also developed different methods to create liquid fuels from electricity and from waste proteins; as well as identifying a more efficient way to convert sugars into fuels.

Liao is a member of the National Academy of Engineering and has received many honors for his work. He joins four other faculties from UCLA Engineering who were previously elected to Academia Sinica.

<http://newsroom.ucla.edu/dept/faculty/james-c-liao-elected-to-taiwan-s-academia-sinica>



9. Taiwan hackers place 2nd in US contest

(Taipei Times, 14 08 2014)

A Taiwanese team has won second place in the Capture the Flag (CTF) competition at the 22nd DEF CON, an international convention for hackers and computer security professionals that ended on Sunday in Las Vegas. With an average age of 23, more than half of the members of the team — called HITCON — are university students, coming mainly from National Taiwan University, National Chiao Tung University and National Taiwan University of Science and Technology. The manager of the team, Lee Lun-chuan, said they defeated the “Dragon Sector” team from Poland, who was the defending champion, to place second in the CTF competition. China’s “Blue Lotus” team came in fourth. “We had to beat many teams from other nations just to get into the final round. It is the first time in DEF CON’s 22 years that a Taiwanese team advanced into the CTF finals,” Lee said. “Although there is no prize money in this competition, we are proud of this good result. It bolsters Taiwan’s reputation in the international software security community,” he said. “This year’s title winner is a very strong US team, known as PPP — Plaid Parliament of Pwning. The team has a member known as Geohot, who is recognized as a genius in the hackers’ world. Geohot is famous for hacking into iPhone and PS3 (PlayStation 3) systems. Competing alone, he defeated nine other teams at a recent hacker competition in South Korea,” Lee said.

CTF is one of several main hacking competitions at DEF CON, held this year from Thursday to Sunday last week. For the finals, computer programming crackers attempted to attack and defend computers and server networks using designated software and network structures. After the preliminary contests, 20 teams advanced to the CTF final round during the weekend. Each team has to defend the embedded flaws in its server, while launching attacks against the opposition and trying to patch flaws. Lee said HITCON’s task in the finals was to defend its assigned ARM v7 server. “The key to HITCON’s success was teamwork and close collaboration among all members. The team would like to thank Trend Micro for its financial support,” he added. Lee said the government should organize similar competitions to encourage more young people to hone their skills in software security.

Wayne Huang, founder of the Web security service Amorized Technologies Inc, said that winning in a hackers’ competition comes from many years of hard work and experience. “The US team that won got together every weekend to train, write programs, find subjects for investigation and search for solutions. This is why they captured the title this time,” Huang said. “Taiwan has outstanding talent in this field. However, we have not yet reached a level where Taiwan’s software sector is well recognized internationally. HITCON’s achievement is a rare exception,” he said. Huang added that the nation does not yet have a good environment to foster the healthy development of the software security industry. “The government and the private sector should pool their resources to promote software security, so that it can become synonymous with Taiwan. It’s like when people mention Italy, they associate it with Ferraris,” Huang said.

<http://www.taipeitimes.com/News/taiwan/archives/2014/08/14/2003597391>

10. Universities faced with adjusting to smaller rolls

(Taipei Times, 14 08 2014)

After this year’s university entrance exams, there was a shortfall of almost 300 students for places in 11 universities. This might not seem much, but with the falling birthrate, this figure will only climb. Some predict a shortfall of 70,000 by 2021, which would leave almost 60 universities with a student recruitment crisis within 10 years. Following the Kao Fong College of Digital Contents’ closure, the Yung Ta Institute of Technology and Commerce recently announced plans to shut down, making it the second institute of higher education to pull out of the market recently. Given the prevailing trend, it is by no means alarmist to warn that worse is yet to come. Whether Minister of Education Wu Se-hwa oversees a drastic restructuring of the system has significant implications for the future of higher education and for young people. Since accepting more Chinese or other overseas students is unlikely to save the day, encouraging public universities to merge and private institutions to either reinvent themselves or withdraw from the market seems to be the most viable option to avoid a wholesale collapse of the university system.

Meanwhile, the ratio of universities to technical/vocational colleges is imbalanced, and this has all the markings of a crisis in the making. Many lecturers at technical and vocational colleges admit that their students are flocking to careers in the tourism and leisure industry, while there is little interest in engineering and technology jobs. Manufacturing is offering salaries of NT\$35,000, but there are few takers. In Mainland China, technical college postgraduate students are having trouble finding jobs in which they can apply what they have learned. Policymakers there have embarked on major reforms, taking more than 600 universities and turning them into technical colleges to de-emphasize academic disciplines and encourage students to study vocational subjects.

<http://www.taipeitimes.com/News/editorials/archives/2014/08/14/2003597357>



11. Two Taiwan Plant Scientists Receive Prizes from the American Society of Plant Biologists

(Academia Sinica, 14 08 2014)

Academician Su-May Yu, Distinguished Research Fellow, Institute of Molecular Biology, and Academician Tuan-hua David Ho, Distinguished Research Fellow, Institute of Plant and Microbial Biology received awards from the American Society of Plant Biologists (ASPB) at their recent annual meeting in Portland, Oregon, on July 12-16. Academician Yu was awarded the Corresponding Membership Award, which provides life membership and Society publications to distinguished plant biologists from outside the United States. The honor is conferred by election by the 5000 members of the Society on the annual ballot. Academician Yu is recognized internationally for her pioneering work on rice transformation using *Agrobacterium*, which she followed up by establishing a large rice T-DNA insertional mutant population. Her research has also provided new insight into the mechanism of sugar and nutrient starvation and oxygen deficiency signaling and regulation in cereal seedling growth. She has also engaged in rice functional genomics research and successfully translated innovative basic research into applications.

Academician Ho was elected a Fellow of ASPB, in recognition of his distinguished and long-term contributions to plant biology and service to the Society in areas that include research, education, mentoring, outreach, and professional and public service. No more than 0.2% of the current membership each year can be elected Fellows of ASPB. Academician Ho has an extensive and distinguished record of ASPB service, including serving as the President of ASPB in 2009-2010. He is internationally recognized for his contributions to our understanding of hormonal regulation of seed germination and plant responses to environmental stresses.

American Society of Plant Biologists is one of the most influential professional societies in plant biology. It publishes two top journals in the field, *Plant Physiology* and *The Plant Cell*. About 40% of its members reside outside United States, thus ASPB is also actively engaged in global issues related to plant sciences, such as food security, genetically modified food, biomass/biofuel production, environmental deterioration, and sustainable development. Many Taiwanese plant scientists are members of ASPB.

http://www.sinica.edu.tw/manage/gatenews/showsingle.php?_op=?rid:6793%26isEnglish:1

12. 11 Taiwan universities make world's top 500

(United Daily News, 14 08 2014)

A total of 11 Taiwan universities made the top 500 in the August edition of Spain-based Webometrics Ranking of World Universities, which evaluates the research performance of tertiary institutions based on Web presence and impact. National Taiwan University has the highest overall ranking at 35th, behind South Korea's Seoul National University at 34th and ahead of Beijing University in mainland China at 37th and other top performers in the Asia-Pacific region. Other local schools on the list are National Central University at No. 143, National Chiao Tung University at No. 157, National Cheng Kung University at No. 176, National Tsing Hua University at No. 226, National Chengchi University at No. 321 and National Sun Yat-sen University at No. 323. In addition, Tamkang University stood at No. 401, National Taiwan Normal University at No. 403, National Chung Cheng University at No. 440 and National Chung Hsing University at No. 443. Tamkang University is the only local private institution on the list. Compared with the rankings released in February, 10 Taiwan universities moved up, while NTNU slipped slightly. NCKU made the greatest gain, jumping from No. 374 to No. 176. "The main reason for the improvement is that local universities are encouraging faculty to publish academic papers on their institutional websites," professor Huang Ming-da of information management at Tamkang University said. The rankings are calculated by the Cybermetrics Lab under the Spanish National Research Council. The lab is devoted to quantitative analysis of the Internet, especially the generation and communication of scientific knowledge.

According to the lab, Webometrics ranks institutions using link analysis, as it is a far more powerful tool than citation analysis or global surveys. Citations only count formal recognition between peers, while links includes bibliographic citations as well as third party involvement with university activities.

Among the current composite indicators, visibility or impact accounts for 50 percent of the ranking, while activity including presence, openness and excellence contributes to the remaining 50 percent. Webometrics also measures other missions like teaching, economic relevance of technology transfer to industry, community engagement and political influence.

Starting 2004, the organization has published the rankings of more than 20,000 institutions of higher learning in February and August each year.

<http://www.taiwantoday.tw/ct.asp?xItem=220587&CtNode=419>