



Weekly Wire East Asia and Pacific National Science Foundation Tokyo Regional Office August 6, 2013

AUSTRALIA: Indigenous Research

The Australian Government will provide A\$3.2 million (US\$2.9 million) for four years to the Aboriginal and Torres Strait Islander Researchers' Network. Funded through the Australian Research Council's Special Research Initiatives, the Queensland University of Technology will lead the new National Indigenous Research and Knowledge Network together with nine collaborating institutions across the country, the Australian Institute for Aboriginal and Torres Strait Islander Studies, and five partner organizations. The initiative will create a national collaborative network by harnessing the leadership of skilled and experienced university-based indigenous researchers with strong track records. It will also build pathways for indigenous researchers from undergraduate to post-graduate studies to establish a pipeline of new researchers across institutions, disciplines and areas of critical research importance.

http://arc.gov.au/media/releases/media_15July2013.htm

JAPAN: Trans-Pacific Optical Cable

The Nippon Telegraph and Telephone (NTT) Corp. increased the capacity of its trans-Pacific trunk lines to 8.4 terabits per second, an increase of about 150%. NTT Communications' overall Japan-US data transmission capacity, including consortium-owned undersea cables, doubled to approximately 10 terabits per second. This capacity is enough to transmit some 600,000 digital television channels at once. Rival KDDI Corp. plans to more than double its capacity to around 2.5 terabits per second in the near future by augmenting submarine cables held through an international consortium. The overall capacity of undersea cables linking Japan and the US is estimated at 40 terabits per second, including the latest upgrade by NTT Communications. Connecting Japan and the US requires roughly 10,000km of cable and an investment of 30-40 billion yen (\$300-400 million).

[Summary translation of a Nikkei article – July 17, 2013](#)



JAPAN: Shortage of Big-Data Analysts

Japan has only an estimated 1,000 specialists in analyzing big data and expects to eventually require more than 250,000. Retailers are analyzing consumer preferences in order to improve marketing and product development, while automakers are crunching enormous amounts of driving data in hopes of developing safer, more fuel-efficient cars, for example. This has led to a

shortage of data scientists - statistics and mathematics majors who also have expertise in information technology.

[Summary translation of a Nikkei article – July 17, 2013](#)

JAPAN: More Power for Liberal Democratic Party (LDP)

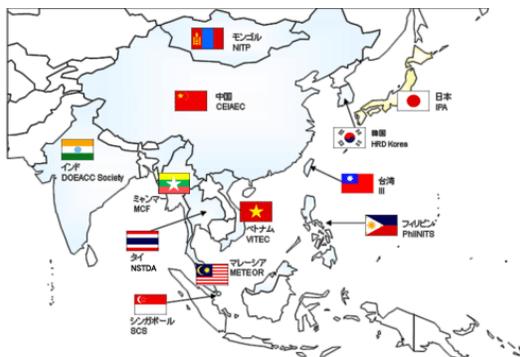
The LDP won a landslide victory in the Upper House race. This election and LDP victory ends years of opposition control of the Upper House and will facilitate the passage of bills as the ruling bloc has an overwhelming majority in the more powerful Lower House. NSF Tokyo will report on the effect of the victory on science, technology, and innovation policies.

<http://www.japantimes.co.jp/news/2013/07/22/national/abe-cements-power-with-ldps-sweeping-victory-in-upper-house-race/>

JAPAN: Super Global Program

The Ministry of Education, Culture, Sports, Science and Technology (MEXT) will establish a Super Global program in JFY2014, continuing its support of Japanese university globalization projects after the Global 30 program ends in March 2014 (MEXT has actually supported only 13 universities even though the original intent was to support 30 over the past 5 years). MEXT plans to select 20 universities in JFY2014 that are proactive in globalization activities. NSF Tokyo will report the details of the new program when the MEXT S&T budget requests are made public in early September 2013.

[Based on interview with MEXT official on August 22](#)



JAPAN: Japan's Technical College Curriculum in ASEAN

Japan has a unique 5-year engineering training system for junior high school graduates. The system 'college of technology' was created in 1961 in response to a decade-long demand by the Japan Business Federation for young people to be trained in order to catch up with the rapid post-war industrialization. Now, the curriculum is going to be "exported" to 12 universities in the Association of South-East Asian Nations (ASEAN). Japan and ASEAN will study how the curriculum can be modified to be accommodated by each country's

already existing system in JFY2014 and be ready for implementation in JFY2015.

[Summary translation of a Nikkei article-July 19, 2013](#)

JAPAN: Decoding Japanese Eel Genes

Researchers from the Fisheries Agency, Fisheries Research Agency, and the University of Tokyo began to analyze Japanese eel (*Anguilla japonica*) genes and hope to complete the decoding in three years. The Japanese eel was domestically designated as an endangered species in 2013 and may soon be so designated internationally. Its full-life cycle is being experimented in aquaculture facilities. One goal of the project is to produce fast-growing, disease-free eels.

[Summary translation of a Nikkei article-July 20, 2013](#)

JAPAN: Ocean Thermal Energy Conversion

An experiment on ocean thermal energy conversion, which generates energy using the difference in temperatures between the ocean surface and deep sea, has begun in Okinawa. This potential energy source is said to generate the same power as that of 8 nuclear plants. After two years of experimentation, a 1,000 Kw plant is planned to be built.

[Summary translation of Nikkei article-July 21, 2013](#)



KOREA: Robot Ready for DARPA-hosted Competition

The Korea Advanced Institute of Science and Technology's Humanoid Robot Research Center (HUBO) and Rainbow Co., a spin-off venture company, unveiled DRC-HUBO, which will compete at the US Defense Advanced Research Projects Agency (DARPA)-hosted international robotics competition later this year. DRC-HUBO can control each joint of the arms and legs in compliance with the dynamics dictated by the external environment. With its 4.7 ft. height and 120 lbs of weight, the robot has been improved and extensively refurbished from previous versions.

http://www.kaist.edu/english/01_about/06_news_01.php?req_P=bv&req_BIDX=10&req_BNM=ed_news&pt=17&req_VI=4382

KOREA: KAIST and Seoul National University

The Korea Advanced Institute of Science and Technology (KAIST) and Seoul National University (SNU) agreed to expand their academic cooperation. The cooperation includes student exchanges, a KAIST liaison office to be located on the SNU campus, joint research programs, and regular meetings between faculty members.

http://www.kaist.edu/english/01_about/06_news_01.php?req_P=bv&req_BIDX=10&req_BNM=ed_news&pt=17&req_VI=4381

SINGAPORE: Science Festival 2013

The Singapore Science Festival 2013 held from July 19th-21st was bigger and better than in previous years, having *X-periment* (a science circus show), hands-on activities, meetings with local scientists, and unveiling innovations created by A*STAR research institutes. Among these activities were printable solar cell batteries from the Institute of Materials Research and Engineering and a giant robotic snake that can mimic real snakes in its movement from Nanyang Polytechnic.

<http://www.a-star.edu.sg/?TabId=828&articleType=ArticleView&articleId=1851>

SINGAPORE: Joint Labs to Enhance Manufacturing Productivity

The Singapore Institute of Manufacturing Technology and the National University of Singapore Faculty of Engineering agreed to launch two joint research labs in precision motion systems and industrial robotics. The collaboration will enable the local research community to develop technologies to enhance manufacturing productivity.

<http://www.a-star.edu.sg/?TabId=828&articleType=ArticleView&articleId=1853>