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# Message from the Director

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Synchrotron light sources have emerged as influential tools for modern scientific research. NSRRC is blessed with the hard work of users and staff. As the director, I am keen to see NSRRC fulfill its potential and do its part to advance our scientific knowledge. After more than two decades of operation, NSRRC has proudly reached important milestones in the delivery of a fully renewed facility that is able to facilitate research across the full spectrum of scientific disciplines.

Taiwan Photon Source (TPS), one of the most brilliant and cutting-edge light sources, inaugurated its opening to users in September 2016. Currently TPS is licensed for a stored electron current of 300 mA in top-up operation, and will progress to its design value 500 mA, which was already guaranteed during its commissioning stage. Four new TPS beamlines equipped with ambitious instruments have been launched to users to carry out their scientific investigations. At the time of this writing TPS has started producing research results. With more beamlines coming on the stage, our user program and output will continue to grow.

In parallel, Taiwan Light Source (TLS), available since 1993, is still running for outstanding performance and serving the majority of our users. Our accelerator staff members continue to innovate in improving light source reliability. Constant upgrades are implemented for optimizing its performance. In 2016, the beam availability reached 97.5%; the power supplies of the quadrupole magnets were replaced with the same modules used for TPS so as to achieve a better beam quality. Our expertise in accelerator technologies has led to a contract to design and manufacture insertion devices for an international synchrotron partner.

The year 2016 was eventful. In addition to offering regular training courses in utilizing various experimental techniques, several workshops were organized to gain insights of certain scientific topics and seek new research opportunities. NSRRC is a large cross-disciplinary facility bringing in over 2,000 users annually. We collaborate with other universities and institutes through MOU and joint educational programs to nurture talents as well as to coordinate and share resources. In 2016 NSRRC signed MOUs with National Cheng Kung University, National Chung Cheng University, National Tsing Hua University, Brookhaven National Laboratories, Tokyo University, Soochow University, and Wuhan University. To take up the social responsibilities of scientists toward the larger community, we have been trying to make the public aware of what we do, and engaged in events of public science education. In the future, we will look beyond local communities and apply our scientific knowledge and technological skills to tackle global problems.

We thank all those who have shaped who we are today as a world-class facility, including our staff, user community, and particularly the funding agencies. Following on from the achievements we have accomplished, we are now excited about the challenges and prospects ahead of us.



A handwritten signature of Shangjr Gwo in black ink, written in a cursive style.

Shangjr Gwo  
Director