
Message from the Director

Over the past two-and-half decades, the NSRRC has gradually evolved into a world-class institute that operates two synchrotron facilities: Taiwan Light Source (TLS) and Taiwan Photon Source (TPS). Since the first beamline was opened to users in 1994, the number of beamlines has increased steadily to 32, which accommodated more than 2,300 users in 2018. All achievements are indeed attributed to the collaborative efforts by our scientists and engineers who continuously advance accelerator and beamline technologies.

During 2018, the NSRRC scientific program continued to be as impressive as in previous years: The first Nature paper produced from TPS data was published. Great progress has been made on beamline development: Seven TPS phase-I beamlines were completed and one of the TPS phase-II beamlines, that were funded in 2017, opened to users in the fourth quarter of 2018.

The NSRRC reached a milestone by completing a TPS long-run testing, under stored electron current 500 mA in top-up operation and being ready to operate at its design specifications. The past year also sparked with some successful events: the premiere of an animated film for science outreach, and the hosting of the SRI 2018, one of the biggest and most reputable international conferences in the synchrotron community. In addition, the NSRRC delivered and installed an in-house-designed 3.5 T superconducting multipole wiggler (SMPW) at the Synchrotron Light Research Institute (SLRI) in Thailand. It is expected that our diverse expertise in accelerator, instrumentation, experimental technique, and scientific research will draw even more industrial applications and international collaborations, like the SMPW Project.

Imminent challenges with financial resources, together with technological breakthroughs on the beamlines and in scientific advancements will demand innovative and unconventional approaches that cross the boundaries of our present comfort zone. As much as I feel proud of the NSRRC's history, we have to look closely, and overcome the challenges carefully so that we will carry on our strong commitment to performing outstandingly.

Today, the NSRRC remains a vibrant and active intellectual community that provides an excellent scientific environment and unparalleled technical support, filled with energetic staff and users. From fundamental research to practical applications, our unique and flexible facility is home to many ideas and experiments. The prospects for scientific discovery and technological development have never been brighter and will continue to enlighten the science community. It is great honor to be entrusted with the opportunity in leading NSRRC to the next phase, and I am also grateful for having the colleagues, users, and funding agency who contributed their talents and resources to make NSRRC what it has become today.



Gwo-Huei Luo
Director