

Alignment Design and Status of the Taiwan Photon Source

Tuesday, 11 September 2012 11:50 (5 minutes)

Abstract

Taiwan Photon Source (TPS) is a new 3-GeV ring under construction at NSRRC Taiwan with high brightness and low emittance characteristics. Due to the stability consideration, the whole building is constructed half underground, so the survey and alignment works are quite confined and difficult. For positioning magnets precisely and quickly, a high accuracy auto-tuning girders system combined with survey network procedures were designed to accomplish the alignment tasks. The survey network includes the preliminary GPS network and laser tracker network. Then, the position data from the survey network define a basis for the motorized girder system to auto-tune and improve the accuracy. The networks are established locally during the construction period and also used to monitor the building construction precision. The detailed alignment design and status are described in this paper.

Primary author: Mr LAI, Wei-Yang (National Synchrotron Radiation Research Center)

Co-authors: Dr LIN, Chang-Sheng (National Synchrotron Radiation Research Center); Mr LIN, Chia-Jui (National Synchrotron Radiation Research Center); Mr KUAN, Chien-Kuang (National Synchrotron Radiation Research Center); Mr HUANG, Din-Goa (National Synchrotron Radiation Research Center); Mr HO, His-Chou (National Synchrotron Radiation Research Center); Mr LIN, Hsueh-Cheng (National Synchrotron Radiation Research Center); Mr LUO, Hung-Ming (National Synchrotron Radiation Research Center); Mr WANG, Jeremy (National Synchrotron Radiation Research Center); Prof. CHEN, June-Rong (National Synchrotron Radiation Research Center); Mr HSU, Keng-Hao (National Synchrotron Radiation Research Center); Ms CHEN, Mei Ling (National Synchrotron Radiation Research Center); Mr SUNG, Pei-Lun (National Synchrotron Radiation Research Center); Mr PERNG, Shen-Yaw (National Synchrotron Radiation Research Center); Mr WU, Thomas (National Synchrotron Radiation Research Center); Mr TSENG, Tse-Chuan (National Synchrotron Radiation Research Center)

Presenter: Mr LAI, Wei-Yang (National Synchrotron Radiation Research Center)

Session Classification: Poster Presentations (5 minutes per poster)

Track Classification: Poster Presentations