June 6th Field Trip – Led by Prof. H.-Y. Yen and Prof. C.-Y. Wang

7:50 Bus will wait outside of Academia Sinica Guest House
8:00 Leave Academia Sinica to Shigong dam
10:00~10:30 Shigong dam

Shigong dam

During the 921 Earthquake in 1999, the broken zone of a fault had caused cracks in the dam and stilling basin, distortion of several gates, and raised #17 and #18 spillway at right section of the dam by 10m around. The Shigang Dam had lost its regulating capability since the earthquake. In addition, the end section of the transmission tunnel was broken by 2.2 m. As a result, the tunnel cannot function properly.

The Shigang Dam has now been renovated at the end of 2000, thus making the Shigang Dam look brand-new and regain its water supply capability.

The damaged part of structures became "National Earthquake Memorial Landscape" on the right bank of the Shigang Dam. Also, the fishway was set up on spillway No.16 to protect fish ecology in the Dajia River.

10:30 Leave Shigong dam to Wufeng, directly go to restaurant for lunch
12:30 Visit 921 Earthquake Museum of Taiwan

921 Earthquake Museum

At 01:47AM on September 21, 1999, the central part of Taiwan was struck by an earthquake that registered 7.3 on the Richter scale. The resultant loss of life and damage to property put it among the worst natural disasters of the past century in Taiwan. In the wake of the 921 disaster, the local government decided to preserve some of the phenomena related to the earthquake such as slips in the fault line, collapsed school structures, raised river beds and other selected locations, to serve as reminders for the public of the need to prepare for such disasters and to be ready to provide emergency rescue services.

With the rebuilding of Kwangfu Junior High on its present site, the Earthquake Memorial Museum was renamed the 921 Earthquake Museum of Taiwan on February 13, 2001. The new plan retains the original sites as a record of the damage wrought by the earthquake, and it also adds educational facilities designed to inform the public and school children about earthquakes and disaster readiness.

The 921 Earthquake Museum of Taiwan combines an Exhibitions Building with the geological changes and destroyed structures in one place to present a clear

impression of the damage that was caused by the earthquake. The structures serve as pointers to the fault lines hidden under the earth and make the earthquake more real to visitors. Chelungpu Fault Gallery is located right next to the oval track that was sharply displaced during the earthquake, showing very distinctly how the fault line moved. The site takes what happened in different areas during the earthquake and reduces it to the most basic logic and then presents it to the visitor. Visual images of structures throughout the area are used to display the upper layers of the ground and to determine how far away the safe zone would be from each one. If you follow the structures along the line of the fault and study how the land is formed, you find both isolated and linked areas that represent different kinds of spaces to the observer.

13:30 Leave 921 Earthquake Museum to Chushan
14:30 Chushan Trenching Site
15:00 Visit Fire Department of Education Training Center

The multifunctional core of Training Center consists of primary buildings, such as administration building, education building, student dormitory, mess hall, and the backup center for Central Emergency Operation Center.

The simulation and training ground contains the most sophisticated and state-of-the-art simulation and training equipment. The training equipment includes simulated buildings for fire training, outdoor trainers, self-contained air breathing apparatus, petrochemical and oil tanks, maritime vessel, aircraft, subway/railway, underground station, highway and long tunnel, trainers for earthquake, landslide, water accident, underwater accident, and swift water accident, high/low tower, and rescue dogs. In total, there are 66 training equipments and simulators in 13 categories.

During the visiting, we will focus on visiting earthquake rescue training ground and Landslide rescue training ground.

The earthquake rescue training ground consists of a simulated collapsed building, collapsed trench, ruptured gas line and secondary fires for a simulation scenario of building that is collapsed in a major earthquake.

Landslide rescue training ground consists of simulated landslide trough, rainfall and trapped people scenario, and there are buried dummies as props.

16:00~18:30 Return to Academia Sinica
19:00 Reception at Café Sinica