# Space Observations and Sustainable Development Course Program

### 1. Methods:

- I. Every Monday from February 14th to June 13th, 2022 from 4pm to 6pm (GMT+8).
- II. Will be opened in advance to allow local and foreign students to register. With Google meet as the online teaching platform, the teaching process and interaction will be recorded and post-production preserved.
- III. Upload recorded courses on the site of TSU, so that relevant departments or interested students can learn the teachers' courses.
- IV. After the courses are over, the registered students can be issued a "Certificate of Participation in Teaching (Quiz and Attendance Rate)".

#### 2. Course:

- I. Each course is 2 hours, divided into one hour each, with a short break in between.
- II. According to the teacher's needs, it can be divided into several sections. A quiz is added at the end of the course as proof of attendance.

# 3. Curriculum Schedule (2022/2/14~2022/6/13 • every Monday, 16:00-18:00, GMT+8):

# A. Introduction to 3S Technology

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2/14 Prof. Tien-Yin Chou——Geospatial Information Technology - Introduction to 3S
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2/21 Prof. Chih-Yuan Huang—Geospatial Information Technology

3/07 Prof. Ta-Kang Yeh——Satellite Positioning and Global Navigation Satellite Systems

3/14 Mr. Lok-Man Chui——Aerial Photography by UAV

#### B. Mobile Mapping Technology

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3/21 Dr. Bo-Yi Lin——Introduction to Remote Sensing
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3/28 Prof. Chi-Kuei Wang——Introduction to LiDAR

4/11 Prof. Jiann-Yeou Rau——UAV Photogrammetry for 3D Modeling

### C. Disaster Management and Technology

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4/18 Prof. Tien-Yin Chou—Disaster Management
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4/25 Prof. Tien-Yin Chou——Intelligent City and Disaster Warning

5/02 Prof. Chao-Hung Lin——Introduction to Deep Learning

### D. Analysis and Case Study

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5/09 Prof. Kuo-Hsin Tseng——Surface Deformation and Sea Level Rise
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5/16 Prof. Chung-Pai Chang—Nature Disaster - Earthquake and Tsunami

5/23 Prof. Shou-Hao Chiang——Nature Disaster - Debris Flow and Landslide

5/30 Prof. Tang-Huang Lin——Anthropogenic Disaster - Air Pollution

6/06 Prof. Tang-Huang Lin——Anthropogenic Disaster - Urbanization Impacts on the Environment

#### E. Exam