## Analytical Photogrammetry and Remote Sensing





國立成功大學測量及空間資訊學系



## Syllabus



Chapter	Contents	Class Schedule
1	Introduction	2/26
2	Mathematics in Analytical Geometry	<mark>2/26</mark> & 3/4
3	Mapping Sensors	3/11
4	Photogrammetric Mapping	3/18 & 3/25
5	Bundle Adjustment	4/8 & 4/15
6	Navigation Sensors	4/29
7	LiDAR Mapping	5/6 & 5/13
8	Mobile Mapping Systems	5/20 & 5/27
9	Satellite Image Mapping	6/3 & 6/17

## References

- Introduction to Modern Photogrammetry, E. Mikhail, J. Bethel & J. McGlone, 2001.
- Photogrammetry- Geometry from Images and Laser Scans (Second Edition), K. Kraus, 2008.
- Elements of Photogrammetry with Applications in GIS (3<sup>rd</sup> Editon), P. Wolf & B. Dewitt, 2000.
- Manual of Photogrammetry (Fifth Edition), J.
  C. McGlone, 2004.
- Airborne and Terrestrial Laser Scanning, G. Vosselman and H.-G. Maas, 2010.
- High Resolution Optical Satellite Imagery, I.
  Dowman and K. Jacobsen, G. Konnecny and R. Sandau, 2012.
- Multiple View Geometry in Computer Vision
  (Second Edition), R. Hartley and A. Zisserman,
  2003



## Assignments



Assignment		Grading	
1	Camera Interior Orientation	Individual Report (20%)	
2	Image Resection and Backprojection	Individual Report (20%)	
3	Relative Orientation and Intersection	Individual Report (20%)	
4	LiDAR Mapping	Team Project and Individual Report (25%)	
5	Satellite Mapping Using RPCs	Individual Report (15%)	
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