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研究領域：測量學、大地測量、GPS 衛星測量、地殼變動、變形監測、最小二乘法平差、統計平差、誤差理論等

[學 歷]

- 國立交通大學 土木研究所 博士 (2001 年 6 月畢業)
- 國立成功大學 航空測量研究所 碩士 (1991 年 6 月畢業)
- 國立成功大學 測量工程 學士 (1982 年 6 月畢業)

[經 歷]

- 1985/07 ~ 1988/06 : 中央研究院 地球科學研究所 技佐
- 1988/07 ~ 1992/06 : 中央研究院 地球科學研究所 技士
- 1992/07 ~ 2003/10 : 中央研究院 地球科學研究所 研究助理
- 2003/10 ~ 2009/12 : 中央研究院 地球科學研究所 研究助技師
- 2009/12 ~ 2015/07 : 中央研究院 地球科學研究所 研究副技師

[學會/榮譽]

- ISI Citation Classic Award, 2001.

[Main mission]

1. Project Supporting
2. Provide technical service in Geodesy and GPS
3. GPS Data Quality Control
4. Improve the Accuracy of GPS
5. Maintain Long-term GPS Frame in Taiwan
6. Create new service fields

[Under developement]

1. Establish GPS Data base
2. Automated Data processing for CORS
3. Real-time GPS Processing for the Earthquake
4. Provide high frequency(1-10Hz) GPS data and position
5. Combined GPS result with IGS
6. Design Instrument for Geodetic Research

[Goal]

1. Provide Near-real-time GPS Site coordinates.

2. Time series of GPS Site position.
3. Short-term(season) and Long-term(years) Crustal motion.
4. Strain accumulation in Taiwan(SIT)
5. Identify areas of seismic hazard in Taiwan

[著 作] **Recent publications:**

1. Yu, S.B., H.Y. Chen, and L.C. Kuo (1997) Velocity field of GPS stations in the Taiwan area : *Tectonophysics*, 274, 41-59. (SCI) * **2001 ISI Award***
2. Yu, S.B., H.Y. Chen, L.C. Kuo, C.S. Hou, and J.F. Lee (1999) Geodetic observations of fault activities in the Taipei basin: Central Geological Survey Special Publication No. 11, 227-251 (in Chinese).
3. Yu, S.B., L.C. Kuo, R.S. Punongbayan and E.G. Ramos (1999) GPS observation of crustal motion in the Taiwan-Luzon region: *Geophys. Res. Lett.*, 26, 923-926 (SCI)
4. Yu, S.B., and L.C. Kuo (2001) Present-day crustal motion along the Longitudinal Valley fault, eastern Taiwan: *Tectonophysics*, 333, 199-217 (SCI).
5. Yu, S.B., L.C. Kuo, Y.J. Hsu, H.H. Su, C.C. Liu, C.S. Hou, J.F. Lee, T.C. Lai, C.C. Liu, C.L. Liu, T.F. Tseng, C. S. Tsai, and T.C. Shin (2001) Preseismic deformation and coseismic displacements associated with the 1999 Chi-Chi, Taiwan earthquake: *Bull. Seism. Soc. Am.* 91, 995-1012 (SCI).
6. Kuo, L.C., S.B. Yu, Y.J. Hsu, C.S. Hou, Y.H. Lee, C.S. Tsai, and C.S. Chen (2002). Impact of a large earthquake on a GPS network: The case of the 1999 Chi-Chi, Taiwan, earthquake, *Survey Review*, 36, 423-431 (SCI).
7. Hsu, Y.J., N. Bechor, P. Segall, S.B. Yu, L.C. kuo, and K.F. Ma (2002). Rapid afterslip following the 1999 Chi-Chi, Taiwan, earthquake: *Geophys. Res. Lett.* 29, 16, 1-1 – 1-4. (SCI)
8. Hsu, Y.J., M. Simons, S.B. Yu, L.C. Kuo, and H.Y. Chen (2003) A two-dimensional dislocation model for interseismic deformation of the Taiwan mountain belt: *Earth Planet. Sci. Lett.*, 211, 287-294 (SCI).
9. Chen, H.Y., L.C. Kuo, W.S., Chuang, and S.B. Yu (2003) Using Quasi Ionosphere-Free post-processing algorithm on the medium-range kinematic high accuracy GPS relative positioning, *Wuhan University Journal of Natural Sciences*, Vol. 8, No. 2B, 610-618.
10. Chen C. S., L. C. Kuo and Y. M. Chang, (2003), "Strategies to Mitigate the Tropospheric Error in GPS Height." , *J. of Geomatics Research Australasia* . No.78 June, 2003, pp.37~66.
11. Chen H. Y., L. C. Kuo, and S. B. Yu (2004) Coseismic movement and seismic ground motion associated with the 31 March 2002 Hualien "331" earthquake, *TAO*. 15, 4, 683-695, 2004(SCI)
12. Chen H. Y., S. B. Yu, L. C. Kuo and C. C. Liu (2004) Coseismic and postseismic displacements of the 10 December 2003 (MW 6.5) Chengkung, eastern Taiwan, earthquake, Submitted to *Earth, Planets and Space*.
13. 陳宏宇 郭隆晨 莊王熊 余水倍 (2003) 中長距離高精度 GPS 動態定位應用於強地動的研究. 地籍測量, 第 22 卷, 第三期, 24-40。
14. Horng-Yue Chen, Shui-Beih Yu, Long-Chen Kuo, Hsueh-Yen Hu (2005) Prominent postseismic displacements of the 2003 MW 6.5 Chengkung earthquake in eastern Taiwan *2005 Int. Symp. on GPS/GNSS, Hong Kong*, 8-10 December, Paper No. 8B.
15. Chen H. Y., S. B. Yu, L. C. Kuo and C. C. Liu (2006), Coseismic and postseismic displacements of the 10 December 2003 (MW 6.5) Chengkung, eastern Taiwan, earthquake, *Earth, Planets and Space*, 58, 5-21. (SCI)
16. Horng-Yue Chen, Shui-Beih Yu, Long-Chen Kuo and Hsueh-Yen Hu (2006), Prominent Postseismic Displacements of the 2003 MW 6.5 Chengkung Earthquake in Eastern Taiwan, *Journal of Global Positioning Systems*, 5, 1-2, 35-39.
17. Hsu, Y. J., P. Segall, S. B. Yu, L. C. Kuo, and C. A. Williams (2007) Temporal and spatial variations of postseismic deformation following the 1999 Chi-Chi, Taiwan earthquake, *Geophys. J. Int.*, 169, 367-379. (SCI)
18. Huang, B. S., W. G. Huang, Y. L. Huang, L. C. Kuo, K. C. Chen and J. Angelier (2008) Complex fault rupture during the 2003 Chengkung, Taiwan earthquake sequence from dense seismic array and GPS observations, *Tectonophysics*, doi:10.1016/j.tecto.2007.11.025. (SCI)

19. Chen, H.Y., J.C.Lee, L.C. Kuo, S.B. Yu and C.C. Liu (2008) Coseismic surface GPS displacement and ground shaking associated with the 2006 Pingtung earthquake doublet, offshore southern Taiwan. *TAO*, 19(6), 683-696. IESAS1319
20. Chen, H.Y., Y.J. Hsu, J.C. Lee, S.B. Yu, L.C. Kuo, Y.L. Jiang, C.C. Liu and C.S. Tsai (2009) Coseismic Displacements and Slip Distribution from GPS and Leveling Observations for the 2006 Peinan Earthquake (Mw 6.1) in Southeastern Taiwan, *Earth Planets Space*, 61, 1-20. IESAS1311 [[pdf](#)] (SCI)
21. Hsu, Y. J., S. B. Yu, M. Simons, L. C. Kuo, and H. Y. Chen (2009) Interseismic crustal deformation in the Taiwan plate boundary zone revealed by GPS observations, seismicity, and earthquake focal mechanisms, *Tectonophysics*, 479, 4-18.
22. Chen, C.H., Wang, C.H., Hsu, Y.J., Yu, S.B. and Kuo. L.C. (2009) Groundwater level variations and land subsidence in the Choshuichi Alluvial Fan. *Journal of Engineering Environment*, 22:119-132. (in Chinese with English abstract)
23. Chen, C.H., Wang, C.H., Hsu, Y.J., Yu, S.B., Kuo, L.C. (2010) Correlation between groundwater level and altitude variations in land subsidence area of the Choshuichi Alluvial Fan, Taiwan. *Engineering Geology*, 115, 122-131, doi:10.1016/j.enggeo.2010.05.011.
24. Hsu, Y.J., S.B. Yu, L.C. Kuo, Y.C. Tsai, H.Y. Chen (2011) Coseismic deformation of the 2010 Jiashian, Taiwan earthquake and implications for fault activities in southwestern Taiwan. *Tectonophysics*, 502, 328-335, doi: 10.1016/j.tecto.2011.02.005.
25. Huang, B.S., L.C. Kuo, S.J. Lee and Y.C. Lai (2012) Common observations for near-source ground motions and seismo-traveling ionosphere disturbances following the 2011 off the Pacific coast of Tohoku earthquake. *TAO*, 23, 237-245, doi: 10.3319/TAO.2011.10.27.01(AA)
26. Ching, K.E., K. M. Johnson, R.J. Rau, R. Y. Chuang, L.C. Kuo and P.L. Leu (2012) Inferred fault geometry and slip distribution of the 2010 Jiashian, Taiwan, earthquake is consistent with a thick-skinned deformation model. *Earth Planet. Sci. Lett.*, EPSL-S-10-00445, doi:10.1016/j.epsl.2010.10.021.
27. Ray Y. Chuang, Kaj M. Johnson, Yih-Min Wu, Kuo-En Ching, and Long-Chen Kuo (2013) A midcrustal ramp-fault structure beneath the Taiwan tectonic wedge illuminated by the 2013 Nantou earthquake series, *Geophys. Res. Lett.*, VOL. 40, 1-5, doi:10.1002/grl.51005, 2013 (IF: 3.982; SCI ranking: 6.4%)
28. Sean Kuanhsiang Chen, Yu-Chang Chan, Jyr-Ching Hu, Long-Chen Kuo(2014) Current crustal deformation at the junction of collision to subduction around the Hualien area, Taiwan, *Tectonophysics*, (accepted)
29. Chen, H.Y., L.C. Kuo, J.C. Lee, H. Tung, S.H. Su, S.S. Yao, H.k. Lee (2014) Reducing distance dependent bias in low-cost single frequency GPS network to complement dual frequency GPS stations in order to derive detailed surface deformation field. *Survey Review*. (accepted)
30. Chuang, R.Y., K.M. Johnson, Y.T. Kuo, Y.M. Wu, C.H. Chang, and L.C. Kuo(2014), Active backthrust in the eastern Taiwan suture revealed by the 2013 Rueisuei earthquake: evidence for a doubly-vergent orogenic wedge? , *Geophys. Res. Lett.*, (accepted)

技術報告與成品：

1. 建構高精度 GPS 天線率定場，中央研究院地球科學研究所研究技術報告，2004.
2. GPS 天線絕對相位中心定平台之設計與建造，中央研究院地球科學研究所研究技術報告，2005.