

# 鄭富書 教授 Fu-Shu Jeng

## Professor

學歷/ 美國麻省理工學院博士

Ph.D., MIT

專長/ 岩石力學、岩體之組成律模式

Rock Mechanics, Numerical Analysis, Engineering Geology

## 期刊論文 (Journal Paper)

1. Y.M. Hsieh, K.C. Lee, F.S. Jeng\* and T.H. Huang, 2011. Can tilt tests provide correct insight regarding frictional behavior of sliding rock block under seismic excitation? *Engineering Geology* 122, 84-92.
2. T. T. Wang\*, F. S. Jeng and W. Lo, 2011. Mitigating large water intrushes into the New Yungchuen Tunnel, Taiwan, *Bulletin of Engineering Geology and the Environment*, 70(2), 173-186.
3. M.C. Weng, L.S. Tsai, Y.M. Hsieh and F.S. Jeng\*, 2010. An associated elastic-viscoplastic constitutive model for sandstone involving shear-induced volumetric deformation. *International Journal of Rock Mechanics and Mining Sciences* 47, 1263-1273. (SCI)
4. K.P. Huang, K.J. Chang, T.T. Wang and F.S. Jeng\*, 2010. Buckling folds of a single layer embedded in matrix – Folding behavior revealed by numerical analysis. *Journal of Structural Geology* 32(7), 960-974. (SCI)
5. M.C. Weng, L.S. Tsai, C.Y. Liao and F.S. Jeng\*, 2010. Numerical modeling of tunnel excavation in weak sandstone using a time-dependent anisotropic degradation model. *Tunnelling and Underground Space Technology* 25(4), 397-406. (SCI)
6. K.P. Huang, T.T. Wang\*, T.H. Huang and F.S. Jeng, 2010. Profile deformation of a circular tunnel induced by ambient stress changes. *Tunnelling and Underground Space Technology* 25(3), 266-278. (SCI)
7. T.T. Wang, J. J. Jaw, C.H. Hsu and F.S. Jeng\*, 2010. Profile-image method for measuring tunnel profile - Improvements and procedures. *Tunnelling and Underground Space Technology* 25(1), 78-90. (SCI)
8. M.C. Weng, F.S. Jeng\*, L. S. Tsai and Y.M. Hsieh, 2010. A simple model for geo-materials involving shear-induced anisotropic degradation. *Journal of the Chinese Institute of Engineers* 33(6), 833-844. (SCI)
9. T.T. Wang\*, F.S. Jeng and W. Lo, 2010. Mitigating large water ingresses into the New Yungchuen Tunnel. *Environmental Earth Sciences* XX, XX-XX. (published online). (SCI)
10. T.T. Wang\*, J.J. Jaw, Y. H. Chang and F.S. Jeng, 2009. Application and validation of profile-image method for measuring deformation of tunnel wall. *Tunnelling and Underground Space Technology* 24(2), 136-147. (SCI)
11. T.L. Chiang, T.T. Wang, K.C. Lee and F.S. Jeng\*, 2009. Analysis of pyramidal

- block slide induced by seismic excitation. *Journal of the Chinese Institute of Engineers* 32(1), 107-122. (SCI)
12. L.S. Tsai, Y.M. Hsieh, M.C. Weng, T.H. Huang and F.S. Jeng\*, 2008. Time-dependent deformation behaviors of weak sandstones. *International Journal of Rock Mechanics and Mining Sciences* 45(2), 144-154. (SCI)
  13. M.C. Weng, F.S. Jeng\*, Y.M. Hsieh and T.H. Huang, 2008. A simple model for stress-induced anisotropic softening of weak sandstones. *International Journal of Rock Mechanics and Mining Sciences* 45(2), 155-166. (SCI)
  14. F.S. Jeng\* and K.P. Huang, 2008. Buckling folds of a single layer embedded in matrix – Theoretical solutions and characteristics. *Journal of Structural Geology* 30(5), 633-648. (SCI)
  15. Y.M. Hsieh, H.H. Li, T.H. Huang and F.S. Jeng\*, 2008. Interpretations on how the macroscopic mechanical behavior of sandstone affected by microscopic properties – revealed by bonded-particle model. *Engineering Geology* 99(1-2), 1-10. (SCI)
  16. F.S. Jeng\*, T.T. Wang, H.H. Li and T.H. Huang, 2008. Influences of microscopic factors on macroscopic strength and stiffness of inter-layered rocks – revealed by a bonded particle model. *Journal of Mechanics* 24(4), 379-389. (SCI)
  17. 王泰典、邱雅筑、鄭富書、黃燦輝 (2008)：隧道結構安全管理新潮流與襯砌非破壞性檢測新技術，*土工技術*，第 117 期，第 17-28 頁。

### 研討會論文 (Conference Paper)

1. C.H. Lee, T.T. Wang, F.S. Jeng and T.H. Huang, 2011. Experimental study on durability of shotcrete and concrete lining under hot spring and geothermal environments. *Proceedings of the ITA-AITES World Tunnel Congress and 37th General Assembly, May 20-26, Helsinki, Finland, 1777-1786.*
2. 王泰典、林信宏、李佳翰、鄭富書 (2010)：營運中隧道補襯砌裂縫影像判釋暨特徵化與數字化技術，*第九屆海峽兩岸隧道與地下工程學術及技術研討會論文集*，洛陽，第 100-108 頁。
3. K.C. Lee, F.S. Jeng\* and T.H. Huang, 2010. The dynamic frictional behavior of sliding block under base excitation. *Proc. of The 23rd KKCNN, Taipei on Civil Engineering, 387-390.*
4. 王泰典、莊海岳、邱雅筑、李佳翰、鄭富書 (2009)：微變監測在營運中隧道穩定評估之應用，*第八屆海峽兩岸隧道與地下工程學術與技術研討會論文集*，11 月 18~19 日，台北。
5. 邱雅筑、韓仁毓、王泰典、鄭富書、黃燦輝 (2009)：平差技術應用於隧道全斷面量測精度之探討，*第八屆海峽兩岸隧道與地下工程學術與技術研討會論文集*，11 月 18~19 日，台北，B9-1~10。
6. Wang, T. T., C. H. Lee, F. S. Jeng and T. H. Huang (2009): Recent researches on tunnel inspection and safety evaluation in Taiwan, *2nd International Tunnel Safety Forum for Road and Rail, Apr. 20-22, Lyon, France, 57-72.*
7. 李國誠、王少韜、鄭富書、黃燦輝 (2009)：動態受震條件下對塊體滑動門檻值之影響，*第十三屆大地工程研討會*，宜蘭，I17-01。

8. Y.M. Hsieh, K.C. Lee, F.S. Jeng\* and T.H. Huang, 2009. Can tilt tests provide correct insight regarding frictional behavior of sliding rock block under seismic excitation? The next generation of research on earthquake-induced landslides: an international conference in commemoration of 10th anniversary of the Chi-Chi earthquake, 187-200.
9. 鄭富書、翁孟嘉、廖俊逸 (2008): 軟弱砂岩之異向性弱化組成模式, 第七屆海峽兩岸隧道與地下工程學術及技術研討會論文集, 大連, 第 1-7 頁。
10. 邱雅筑、王泰典、鄭富書、黃燦輝 (2008): 攝影測量技術於隧道檢測之應用, 第七屆海峽兩岸隧道與地下工程學術及技術研討會暨海峽兩岸岩土工程和地下工程青年科技研討會論文集, 8 月 29-30 日, 大連, 第 247-254 頁。
11. 李國誠、鄭富書、黃燦輝、王少韜 (2008): 節理岩塊受震滑動臨界加速度之研究, 第九屆岩盤工程研討會論文集, 台北, 第 239-248 頁
12. 李國誠、鄭富書、黃燦輝 (2008): 應用小型振動台探討節理岩塊受震滑動之臨界加速度, 第三十二屆力學學會研討會論文集, 嘉義, 第 476-480 頁。(優良論文獎佳作)
13. Wang, T. T., F. M. Chang, M. L. Lin, F. S. Jeng and T. H. Huang (2008/06): Using image mosaic technology for tunnel inspection, 42nd U.S. Rock Mechanics Symposium and 2nd U.S.-Canada Rock Mechanics Symposium, Jun, 28-Jul, 2, San Francisco, CD-ROM 026/MS2.

### 技術報告及其它

1. 黃燦輝、鄭富書、王泰典、李維峰 (2009): 隧道補強技術與材料之開發總結報告書, 交通部鐵路改建工程局東部工程處委託研究計畫報告, 宜蘭。
2. 鄭富書、李順敏、李家慶 (2008). 從工程爭議探討大地工程風險管理, 中華技術, 第 77 期, 第 151-157 頁。
3. 王泰典、邱雅筑、鄭富書、黃燦輝 (2008): 隧道結構安全管理新潮流與襯砌非破壞性檢測新技術, 地工技術, 第 117 期, 第 17-28 頁。

**專利** 請填入目前仍有效之專利。「類別」請填入代碼:(A)發明專利(B)新型專利(C)新式樣專利。

類別	專 利 名 稱	國別	專利號碼	發明人	專利權人	專利期間	國科會計畫編號
新型專利	旋轉式加砂水刀裝置	中華民國	170930	沈景鵬 鄭富書 黃燦輝 謝宏新	榮民工程股份有限公司、 鄭富書、 黃燦輝	2001/03/ ~ 2102/01/	86-2221-E-002-0-29