

基本資料表

2012/8

姓名	譚義績	機關單位 學院	國立台灣大學 生物資源暨農學院		
職稱	教授	就任現職日期	1994年	系所	生物環境系統 工程學系

學	學校名稱	系所	學位	畢業起迄年月
歷	Cornell University, USA	生物及環境工程研究所	博士	1985/8 至 1993/5
	國立台灣大學	農業工程研究所水利組	碩士	1977/9 至 1979/6
	國立台灣大學	農業工程學系水利組	學士	1973/9 至 1977/6

專長領域	防災應變、土壤及水資源工程、水利工程、地下水及污染傳輸、 污染與環境保護
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經	服務機關	職稱	起訖年月
歷	現職：國立台灣大學生物環境系統工程學系	教授	1994/8 至今
	國立台灣大學氣候天氣災害研究中心	執行長	2010/5 至今
	經歷：國立台灣大學水工試驗所	主任	2002/7 至 2009
	國立台灣大學綜合災害研究中心	主任	2007/1 至 2009
	國立台灣大學綜合災害研究中心	執行秘書	2002/9 至 2006/12
	國立台灣大學農業工程學系	副教授	1989/8 至 1994/7
	國立台灣大學農業工程學系	講師	1983/8 至 1989/7
	國立台灣大學農業工程學系	助教	1982/8 至 1983/7

參	名稱	擔任職務	起迄年月
加 學 術 團 體	社團法人臺灣災害管理學會	理事	
	台灣雨水利用協會	理事長	
	社團法人臺灣農業工程學會	理事	

獎 勵

獲頒 Cornell University 胡適獎學金

國科會甲種研究獎七次

國立台灣大學教學優良獎

專 利

(A)發明專利 (已核准 4 項、申請中 2 項)

「類別」：[A]發明專利[B]新型專利[C]新式樣專利。

類別	專 利 名 稱	專利號碼	發明人	專利權人	專利核准日期
發明專利	自動化虛擬實境地形影像產生方法、展示編輯系統，及系統儲存裝置	I 282944	賴進松 何興亞 郭振泰 李天浩 譚義績 李豐佐 李碧雲 彭韶雯 黃鈺喻	賴進松	2007/06/21~ 2025/05/11
發明專利	即時虛擬實境流場影像之產生方法、編輯系統，及紀錄媒體	I 302675	賴進松 郭振泰 何興亞 譚義績 李豐佐 張向寬 彭韶雯 黃鈺喻	賴進松	2008/11/01~ 2025/05/11
新型專利	可拆式泥砂濃度及流速超音波量測裝置	M364859	賴進松 宋家驥 譚義績 鄭建華 黃國文 黃裕君	賴進松 水利署	2009/09/11~ 2019/02/24

類別	專利名稱	專利號碼	發明人	專利權人	專利核准日期
發明專利	水道泥砂濃度超音波量測系統	已通過	賴進松 宋家驥 譚義績 鄭建華 黃國文 黃裕君	賴進松	2010~
發明專利	水工泥砂濃度超音波測定裝置	申請中	宋家驥 賴進松 譚義績 鄭建華 黃國文 黃裕君 李豐佐 權順忠	宋家驥	2008
發明專利	單元式泥砂濃度超音波量測系統	申請中	宋家驥 賴進松 譚義績 鄭建華 黃國文 黃裕君 李豐佐	宋家驥	2009

(B)專利技術移轉：

技術名稱	授權單位	被授權單位	簽約日期
洪氾淹水模擬與 3D 地形地貌結合之虛擬實境即時展示技術	台灣大學	愛迪斯科技股份有限公司	98/01/23
洪氾區 3D 地形結合淹水模擬之流場、淹水範圍及深度之展示技術	台灣大學	愛迪斯科技股份有限公司	98/01/23

著作目錄

譚義績教授近年來在水資源及防災領域之論文

Papers/Publication: (* Corresponding Author)

A Chapter of a Book: Subsurface Hydrology:

by Tian-Chyi Jim Yeh, Cheng Haw Lee, Kuo-Chin Hsu and **Yih-Chi Tan**

Fusion of Active and Passive Hydrologic and Geophysical Tomographic Surveys: The Future of Subsurface Characterization

Subsurface Hydrology: Data Integration for Properties and Processes

Geophysical Monograph Series 171

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a. published to SCI journal papers

=====accepted papers=====

1. Huang, Yu-Jun; Sung, CC*; Lai, JS; Lee, FZ; Hwang, GW; **Tan, Yih-Chi**, 2012, Measurements of solid suspension concentration and flow velocity with temperature compensation using one portable ultrasonic device, Hydrological Sciences Journal, Accepted Feb. 6, 2012, (SCI)(IF=1.891)
2. Kai-yuan Ke, **Yih-Chi Tan***, Chu-Hui Chen, Hsien-Tsung Lin, Characterizing the hydraulic properties of unsaturated sand considering various porosities and drying-wetting paths of the retention curve, Jan. 2012, Accepted by Hydrological Processes, Sept. 2011(SCI) (IF=1.870)
3. Tsung-Yi Pan, Lung-Yao Chang, Jihn-Sung Lai, , Hsiang-Kuan Chang, , Cheng-Shang Lee, and **Yih-Chi Tan***, 2011, Coupling typhoon rainfall forecasting with overland-flow modeling for early warning of inundation, Accepted by natural Hazards, Dec. 2011 (SCI) (IF=1.217)
4. Hsien-Tsung Lin, **Yih-Chi Tan***, Chu-Hui Chen, Wen-Sheng Lin, Chen-Wuing Liu, 2011, Multivariate Approaches Optimize Locations of Ground-Water Pumping Facilities for Different Hydrogeological Scales, Accepted by Hydrological Processes, Sept. 2011(SCI) (IF=1.870)
5. Kuo-Chen Ma, **Yih-Chi Tan***, Chu-Hui Chen, 2011, The Influence of Water Retention Curve Hysteresis on the Stability of Unsaturated Soil Slopes, Accepted by Hydrological Processes, Feb. 2011(SCI) (IF=1.870)
6. Tsung-Yi Pan, Jihn-Sung Lai, Tsang-Jung Chang*, Hsiang-Kuan Chang, Kuo-Chyang Chang, and **Yih-Chi Tan**, 2011, Hybrid neural networks in rainfall -inundation forecasting based on a synthetic potential inundation database, Natural Hazards and Earth System Sciences, Accepted Feb. 2011.

(SCI) (IF=1.357)

====2011====

7. Yong-Jun Lin, Yuan-Hsiou Chang, Yih-Chi Tan*, Hong-Yuan Lee, Yu-Jia Chiu, 2011, National Policy of Watershed Management and Flood mitigation after the 921 Chi-Chi Earthquake in Taiwan, *Natural Hazards*, Vol. 56, Issues 3, 709-731 (SCI) (IF=1.217)
8. Jihn-Sung Lai, Wen-Yi Chang, Ying-Chieh Chan, Shih-Chung Kang*, Yih-Chi Tan, 2011, Development of a 3D virtual environment for improving public participation: Case study – The Yuansantze Flood Diversion Works Project Accepted by *Advanced Engineering Informatics*, 25 (2):208-223, (SCI) (IF=1.730)
9. Shang-Shu Shih, Tung-Jer Hu, Hong-Yuan Lee and Yih-Chi Tan*, 2011, Ecotechnologies applied on agricultural irrigation and drainage channels -Case study in Taichung Irrigation Association in Taiwan, *Irrigation and Drainage*, Online, Vol. 60, 80-92 (SCI) (IF=1.108)
10. Jihn-Sung Lai, Wen-Yi Chang, Ying-Chieh Chan, Shih-Chung Kang*, Yih-Chi Tan, 2011, Development of a 3D virtual environment for improving public participation: Case study – The Yuansantze Flood Diversion Works Project Accepted by *Advanced Engineering Informatics*, (SCI) (IF=1.730)

====2010====

11. Hsien-Tsung Lin, Yih-Chi Tan*, Chu-Hui Chen, Hwa-Lung Yu, Kai-Yuan Ke, 2010, Effective hydrogeological parameter estimation in heterogeneous and anisotropic aquifer, *Journal of Hydrology*, Volume 389, Issues 1-2, 57-68. (SCI) (IF=2.433)
12. Hsien-Tsung Lin, Kai-Yuan Ke, Chu-Hui Chen, Shih-Ching Wu, Yih-Chi Tan*, 2010, Estimating anisotropic aquifer parameters by artificial neural networks, *Hydrological Processes*. Vol. 24, 3237-3250 (SCI) (IF=1.870)
13. Wen-Shang Hou, Yuan-Hsiou Chang, Hsiao-Wen Wang and Yih-Chi Tan*, 2010, Using the Behavior of Seven Amphibian Species for the Design of Banks of Irrigation and Drainage Systems in Taiwan, *Irrigation and Drainage*, Vol.59, 493-505,(SCI) (IF=1.108)
14. Jihn-Sung Lai*, Wen-Dar Guo, Gwo-Fong Lin, and Yih-Chi Tan, 2010, A well-balanced upstream flux-splitting finite-volume scheme for shallow-water flow simulations with irregular bed topography, *International Journal for Numerical Methods in Fluids*, Vol.62 : P927 -944(SCI) (IF=0.936)
15. Yung-Bin, Jihn-Sung Lai*, Kuo-Chun Chang, Wen-Yi Chang, Fong-Zuo Lee, Yih-Chi Tan, 2010, Using MEMS Sensors in the Bridge Scour Monitoring System, Vol. 33, P25-35 of the *Journal of the Chinese Institute of Engineers*. (SCIE)

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16. Yih-Chi Tan*, Kuo-Chen Ma, Chu-Hui Chen, Kai-Yuan Ke, and Ming-Tsan Wang, 2009, A Numerical Transport Model of Hysteretic Flow with General Mass Conservation, *Irrigation, and*

Drainage, Volume 58, 366-380, (SCI) (IF=1.108)

- 17. Keshav Rajdhikari, Yih-Chi Tan*, and Jih-Sung Lai, 2009, Irrigation Intervention: A Strategy for Conserving Bio-Diversity and Improving Food Security in Royal Chitwan National Park Buffer Zone, Nepal, Irrigation and Drainage, Vol.58, 522-537,(SCI) (IF=1.108)**
- 18. Yih-Chi Tan*, Jih-Sung Lai, Keshav Rajdhikari and Alan Yun Lu, 2009, Who Benefits from allocating agricultural water to other sectors in Taiwan? Irrigation and Drainage, Volume 58, 72-85, (SCI) (IF=1.108)**
- 19. Yih-Chi Tan*, Jih-Sung Lai and Keshav Rajdhikari, 2009, Efficacy of mulching, irrigation and nitrogen applications on bottle gourd and okra for yield improvement and crop diversification, Irrigation and Drainage Systems, Vol. 58, 25-41(SCIE)**
- 20. Yun Cheng, Cheng-Haw Lee, Yih-Chi Tan*, and Hsin-Fu Yeh,2009, An Optimal Water Allocation for an Irrigation District in Pingtung County, TAIWAN, Irrigation and Drainage, Vol. 58, 287-306(SCI)**
- 21. Shih-Ching Wu, Yih-Chi Tan*, Chu-Hui Chen, Shien-Tsung Lin, Kai-Yuan Ke , 2008, A two-dimensional inverse model to identify transmissivity in an anisotropic aquifer, Hydrological Processes, Vol. 22, 5086-5096, 2008 (SCI) (IF=1.870)**

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- 22. Jiann-Mou Chen, Yih-Chi Tan*, Yu- Zhang Wu, 2008, Analysis of Infiltration of 2D Trickle Irrigation under Multiple-Line Sources, Hydrological Processes Vol. 22, 2657-2666, 2008(SCI) (IF=1.870)**
- 23. Nien-ming Hong, Chu-hui Chen, Ching-pin Tung*, Yih-Chi Tan, 2008, Reply to comment on “Regional Daily Baseflow Prediction”, Hydrological Processes, Vol 22, p887-889. (SCI) (IF=1.870)**
- 24. Kuo-Chen Ma, Yih-Chi Tan*, Chu-Hui Chen,2008, Effect of Hysteresis and Rainfall Intensity on Finger Dynamics, Irrigation, and Drainage, Volume 57, 585-602, Issue 4 (Dec. 2008) (SCI) (IF=1.108)**
- 25. Po-Wen Chang, Yih-Chi Tan* , I-Sen Wang, 2008, On-Farm Remediation and Fertility Enhancement of Cadmium-Contaminated Silt Loam by Electrokinetics Treatment Process in TAIWAN, Irrigation, and Drainage, Volume 57, 187-201. Issue 2 (April 2008) (SCI) (IF=1.108)**

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- 26. Han-Chen Huang, Chen-Wuing Liu, Yih-Chi Tan and Chu-Hui Chen , 2007, Reply to comment on ‘A novel hysteresis model in unsaturated soil’ by A. D. Werner and D. A. Lockington, Hydrological Processes, Vol.21, 414-414 (SCI) (IF=1.870)**

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- 27. Yun-Bin Lin , Yu-Pin Lin*,Yih-Chi Tan, Chen-Wuing Liu, 2006, Mapping of spatial multi-scale sources of arsenic variation in groundwater on ChiaNan floodplain of Taiwan, Science of the Total Environment, 370,p168-181 (SCI) (IF=2.905)**
- 28. Chien-jen Hung ,Yih-Chi Tan*, Chu-Hui Chen , 2006, An Analytical solution of transient state of the water table fluctuations due to the ditch recharge on an inclined leaky layer, Hydrological**

Processes, Vol. 20, p1597-1609 (SCI) (IF=1.870)

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29. Jiann-Mou Chen, Yih-Chi Tan*, 2005, Analytical Solutions of Infiltration Process Under Ponding Irrigation, Hydrological Processes, Vol. 19, p3593-3602 (SCI) (IF=1.870)

30. Han-Chen Huang, Yih-Chi Tan, Chen-Wuing Liu*, Chu-Hui Chen, 2005, A Novel Hysteresis Model in Unsaturated Soil, Hydrological Processes, Vol.19, p1653-1665 (SCI) (IF=1.870)

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31. Yun-Bin Lin , Tan, Yih-Chi*, T.-C. Jim Yeh, Chen-Wuing Liu , Chu-Hui Chen , 2004, A Visco-Elastic Model for Groundwater Level Changes in the Aquifer of Cho-Shui River Alluvial Fan After the Chi-Chi Earthquake in Taiwan, Water Resources Research, Vol 40, W04213 (SCI) (IF=2.447)

32. Kai-Yuan Ke, Yih-Chi Tan*, Chu-Hui Chen, Kin-Sang Chim, T.-C Jim Yeh, 2004, Theoretical and Experimental Studies on Volumetric Compression Properties of Unsaturated Soil during Draining, Hydrological Processes, Vol 18, p2565-2578. (SCI) (IF=1.870)

33. Ching-pin Tung*, Nien-ming Hong, Chu-hui Chen, Yih-Chi Tan, 2004, Regional Daily Baseflow Prediction, Hydrological Processes, Vol 18, p2147-2164. (SCI) (IF=1.870)

34. Yun-Bin Lin , Yih-Chi Tan*, Yu-Pin Lin, Chen-Wuing Liu, C.J. Hung, 2004, Geostatistical Method to Delineate Anomalies of Multi-Scale Spatial Variation in Hydrogeological Changes Due to the ChiChi Earthquake in the ChouShui River Alluvial Fan in Taiwan, Environmental Geology, Vol.47, p102-118. (SCI) (IF=1.078)

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35. Jiann-Mou Chen, Yih-Chi Tan*, Chu-Hui Chen, 2003, Analytical Solutions of One Dimension Infiltration Before and After Ponding, Hydrological Processes, Vol. 17, No 4, p815-822 (SCI) (IF=1.870)

====2001====

36. Jiann-Mou Chen, Yih-Chi Tan*, Chu-Hui Chen, and J.-Y. Parlange, April 2001, Analytical Solutions for Linearized Richards Equation with Arbitrary Time-Dependent Surface Fluxes, Water Resources Research , Vol. 37 , No 4 , p1091-1094 (SCI) (IF=2.447)

37. Yu-Pin Lin*, Yih-Chi Tan, and Shahrokh Rouhani, 2001, Identifying spatial characteristics of transmissivity using simulated annealing and kriging methods, Environmental Geology, Vol. 41 , P200-208 (SCI) (IF=1.078)

38. Chi-Chun Lee, Yih-Chi Tan*, Chu-Hui Chen, and T.-C. Jim Yeh, 2001, Stochastic Series Lumped Rainfall-Runoff Model for a Watershed in Taiwan, Journal of Hydrology , Vol. 249 , p30-45 (SCI) (IF=2.433)

39. Jiann-Mou Chen, Yih-Chi Tan*, and Chu-Hui Chen, 2001, Multidimensional Infiltration with Arbitrary Surface Flux, Journal of Irrigation and Drainage Engineering--ASCE , Vol. 127 , NO. 6 , p370-377 (SCI) .

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40. Yu-Pin Lin, Chi-Chun Lee, Yih-Chi Tan*, 2000, Geostatistical approach for identification of transmissivity structure at Dulliu area in Taiwan, Environmental Geology, Vol. 40 (1-2), December, P111-120 (SCI) (IF=1.078) .

(B) Conference

1. 譚義績, 2011, 臺灣因應氣候變遷之災害管理, 河海大學, 南京大學, 南京水科院, 南京, Oct.12-15, 2011
2. Yih-Chi Tan, Climate Change and Disaster Management in Taiwan, Australia -Taiwan Strategic Workshop on a Sustainable Water Environment, Sept. 21-22, 2011
3. George T.-J. Chen, Hong-Yuan Lee and Yih-Chi Tan et al., Introduction of the National Taiwan University Research Center of Climate Change and Sustainable Development (NTU-CCSD) and our missions, UCLA, UCI, Cal Tech, NCAR, UCAR, Aug. 27-Sept., 3,2011
4. 譚義績, 2011, 臺灣災害防救科技應用與落實 — 以新北市為例, 武漢理工大學, 武漢, March 30-31, 2011
5. I-Chun, Lien, Yih-Chi Tan, 2011, The Groundwater monitoring network design in different layers : A case study of Taiwan Aquifer System, European Geophysical Union, EGU, April, Austria
6. Kuo-Chen Ma, Yih-Chi Tan*, 2010, Couple the Hysteretic flow and root strength model with vegetated slope stability, ICID meeting, Indonesia
7. Yih-Chi Tan*, 2010, IEET Accreditation of Engineering Education in Taiwan, PAWEES Conference, Oct. Chi-Ju, Korea
8. Yih-Chi Tan*, 2010, Rating curve assessment at the Yuanshantzu Flood Diversion Works using laboratory and field data, International Symposium on Hydraulic Physical Modeling and Field Investigation, 南京水科院, Sept. 13-15 南京
9. Yih-Chi Tan*, 2010, Global Climate Change and Disaster Response Mechanism in Taiwan, 美西華人學會, June 27, Los Angeles, USA
10. Yih-Chi Tan*, 2010, Sustainable Watershed Management under Extreme Weather Condition, FP7 program, April, Switzerland
11. Yih-Chi Tan*, 2010, Study of hydro-geological parameters in a heterogeneous and anisotropic aquifer”, European Geophysical Union, EGU, April, Austria
12. Yih-Chi Tan*, 2010, The Effect of Unsaturated Flow and the Root System on the Vegetated Slope Stability, European Geophysical Union, EGU, April, Austria
13. Yih-Chi Tan*, 2010, Disaster Management Cooperation with Taipei County, Taiwan-Philippi Conference, March, Manila, Philippi
14. Yih-Chi Tan*, 2009, A study of typhoons induced high serious sediment concentration deposition into a reservoir and reduced the water supply in Taiwan, ICID Conference, New Delhi, India
15. Yih-Chi Tan*, 2009, APEC Engineer and International Engineering Alliance, PAWEES Conference, Oct. Bogor, Indonesia
16. Yih-Chi Tan*,2009, Learn the knowledge of Farm dams from Australia and Exchange the experience of Impact of Climate Change and Disaster Management in Taiwan, CISRO, Australia
17. Yih-Chi Tan*,2008, Climate Change and disaster management education in Taiwan, UK- Asia Scientists and Practitioners Seminar on Climate Change, Disaster Risk Governance and Emergency Management, December 1st, Putra World Trade Centre, Kuala Lumpur, Malaysia
18. Yih-Chi Tan*,2008, From Chi-Chi Earthquake(Taiwan) to Discuss and Analyze WenChun Earthquake(China), Tsinghua University, Beijing, China 譚義績*, 2008, 從 921 集集大地震看 512 四川汶川大地震, 北京清華大學

- 19. Yih-Chi Tan*, Jih-Sung Lai, Fong-Zuo Lee, 2008, High sediment concentration damaged to water supply system at Shimen Reservoir in Taiwan--The 3rd East Asian Symposium on Environmental and Natural Resources Economics, Tokyo, Japan**
- 20. Yih-Chi Tan*, Jih-Sung Lai, 2007, The Flood Mitigation Project for urban areas along the Keelung River in Taiwan--The 3-D Yuanshanzi flood diversion, The 2nd East Asian Symposium on Environmental and Natural Resources Economics, Korea, Bushan, Korea**