

YUANG-TUNG CHENG

PERSONAL DETAILS

Date of birth February 2nd, 1968 in Hsin-Chu country
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EDUCATION

2006/07-2009/12	PhD	Department of Electrical Engineering, Nation Taiwan Ocean University.
2004/07-2006/07	MS	Department of Marine Engineering, Nation Taiwan Ocean University.
2002/07~2006/07	BS	Department of Mechanical Engineering, Kaw Wu Institute of Technology.

WORK EXPERIENCE

1992-2001	Technician, line maintenance engineering & division of China-Airlines. Work involved: <ol style="list-style-type: none">1. Support aircraft on ground (AOG) team.2. Foreign station maintenance Representative to travel.3. Support on board engineer release aircraft.4. Aircraft transit check, Overnight check, A check.5. Troubleshooting correct airframe and engine system.6. Mechanic helper airlines includes UPS cargo air, Polar air, Asia Japan air, Atlas air, Qantas air et al.7. Full control release: Singapore air, Cargo lux air, Malaysia air et al.
2001-2004	Controller, Product Plant Section of China-Airlines. Responsibilities include: <ol style="list-style-type: none">1. A300-600R aircraft fleets A, B, C, D check control plane and work card preparatory.2. Technical log book, Delay defect log book, Engine log book, control.3. Airworthiness directives, Service bulletin, Service letter time control.4. Material & Tool pre-draw and control.5. Time due parts control.
2004-2009	Instructor, Lufthansa Technical Training. Responsibilities include: <ol style="list-style-type: none">1. Flight safety course.2. Aircraft engine system course.3. Aircraft airframe system course.
2009-2012	Instructor, China University of Science and Technology, Department of Avionic Engineering. Responsibilities include: <ol style="list-style-type: none">1. Human factors engineering course.2. Aircraft system engineering course.

3. Aircraft electric energy system course.
4. Foundations of system and control operations aircraft engine course.
5. Avionic and navigation system course.

2012- Present

National Chung-Shan Institute of Science and Technology

Responsibilities include:

1. Weapons system scheduled maintenance service.
2. Weapons system engineering.
3. Logistics engineering.
4. Structure engineering.
5. System reliability design analysis.

LICENSES

1. CAA Aircraft maintenance engineering 802192
2. FAA Airframe& Power plant Engineering 2570501

PUBLICATIONS

Books

1. Jeng-Cheng Liu, Yuang-Tung Cheng*, Hsien-Sen Hung, Shun-Hsyung Chang, “Development of Hydrophone Array Applied Novel DOA Technology for Underwater Sensing,” 2017 International Conference on Physics and Mechanics of New Materials and Their Applications, PHENMA 2017, pp.92-93. 2017.
2. Jeng-Cheng Liu, Yuang-Tung Cheng*, Fu-Tai Wang, Hsien-Sen Hung, Shun-Hsyung Chang., “Optimized Adaptive Maximum Power Point Tracking Performances in Photovoltaic,” 2017 International Conference on Physics and Mechanics of New Materials and Their Applications, PHENMA 2017, pp.93-97. 2017.
3. Yuang-Tung Cheng, Jiun-Chen Liou, Kuo-Chang Hou, David. R. C. Chu, Ping-Chen Wu and Shun-Hsyung Chang, “Physics and Mechanics of New Materials and their Applications,” Chapter28, pp.391-404, 2012.
4. Shun Hsyung Chang, Igor Zhilyaev, Maria Shevtsova, Ping Chen Wu, Yuang Tung Cheng, Jiing Kae Wu, “Structural Optimization of MEMS-Based Hydrophones with Perforated Active Membrane,” *Applied Mechanics and Materials*, Vols. 300-301, pp. 597-603, 2013.
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Journal Publications

1. Yuang-Tung Cheng, Tsung-Lin Lu, Min-Han Hong, Chau-Chang Chou, Jyh-Jier Ho, Jiajer Ho and Tung-Po Hsieh, “Evaluation of transparent ITO/nano-Ag/ITO electrode grown on flexible electrochromic devices by advanced roll-to-roll sputtering technology,” *Coatings*, vol. 12. no. 455, pp. 1-15, 2022. (SCI)
2. Yuang-Tung Cheng, Tsung-Lin Lu, Shang-Husuan Wang, Jyh-Jier Ho, Chung-Cheng Chang, Chau-Chang Chou, Jiashow Ho, “Performance of High Efficiency Avalanche Poly-SiGe Devices for Photo-Sensing

- Applications,” *Sensors*, vol. 22, no.1243, pp. 1-12, 2022. (SCI)
3. Jeng-Cheng Liu, Yuang-Tung Cheng*, and Hsien-Sen Hung, “Joint Bearing and Range Estimation of Multiple Objects from Time-Frequency Analysis,” *Sensor*, vol. 18, no 291, pp. 1-14, 2018.(SCI)
 4. Jeng-Cheng Liu, Yuang-Tung Cheng, Sheng-Yun Ho, Hsien-Sen Hung, Shun-Hsyung Chang, “Fabrication and Characterization of High-Sensitivity Underwater Acoustic Multimedia Communication Devices with Thick Composite PZT Films,” *Journal of Sensors*, vol. 2017, Article ID 7326919, pp.1-7, 2017. (SCI)
 5. Jeng-Cheng Liu, Yuang-Tung Cheng, Sheng-Yun Hou, Chih-Lung Tseng, Hsien-Sen Hung and Shun-Hsyung Chang, “Implementation of Maximum Power Point Tracking Controller for Photovoltaic Systems,” *Journal of Chung Cheng Institute of Technology*, 2017 Accept.(EI)
 6. Chih-Lung Tseng, Ya-Wen Lin, Po-Jui Ching, Yuang-Tung Cheng, Jau-Ji Jou, Cheng-Kuang Liu, “Wavelength-adjustable all-optical wavelength conversion using a tunable fiber laser and an electroabsorption modulator,” *Optica Applicata*, vol. XLVI, no. 3, pp.347-352, 2016.(SCI)
 7. Yuang-Tung Cheng, Jyh-Jier Ho, Song-Yeu Tsai, Zong-Zhi Ye, William Lee, Daw-Shang Hwang, Shun-Hsyung Chang, Chiu-Cheng Chang and Kang L. Wang, “Efficiency Improved by Acid Texturization for Multi-crystalline Silicon Solar Cells,” *Solar Energy*, vol. 85, pp. 87-94, 2011. (SCI)
 8. Yuang-Tung Cheng, Jyh-Jier Ho, William J. Lee, Song-Yeu Tsai, Yung-An Lu, Jia-Jhe Liou, Shun-Hsyung Chang, and Kang L. Wang, “Investigation of Low-Cost Surface Processing Techniques for Large-Size Multicrystalline Silicon Solar Cells,” *Int. J. Photoenergy*, vol. 2010, doi:10.1155/2010/268035, pp. 1–6, 2010. (SCI)
 9. Yuang-Tung Cheng, Jyh-Jier Ho, WilliamLee, Song-Yeu Tsai, Liang-Yi Chen, Jia-Jhe Liou, Shun-Hsyung Chang, Huajun Shen, and Kang L.Wang, “Efficiency Improved by H₂ Forming Gas Treatment for Si-Based Solar Cell Applications,” *Int. J. Photoenergy*, vol. 2010, doi:10.1155/2010/634162, pp.1-6, 2010. (SCI)
 10. Yuang-Tung Cheng, Jyh-Jier Ho, Chien-Kun Wang, William Lee, Chih-Chiang Lu, Bao-Shun Yau, Jhen-Liang Nain, Shun-Hsyung Chang, Chiu-Cheng Chang, Kang L. Wang, “Improvement of organic solar cells by flexible substrate and ITO surface treatments,” *Applied Surface Science*, vol. 256, pp. 7606–7611, 2010. (SCI)
 11. Jyh- Jier Ho, Yuang-Tung Cheng, Jia-Jhe Liou, Ching-Hsi Lin, D. Z. Dimitrov, Song-Yeu Tsai, Chien-Kun Wang , William Lee and K. L. Wang, “Advanced Selective Emitter Structures by Laser Opening Technique for Industrial mc-Si Solar Cells,” *Electro. Lett.*, vol. 46, no.

23, pp. 1559-1561, 2010. (SCI)

12. Chia-Liang Lu, Chun-Lung Chen, Daw-Shang Hwang, Yuang-Tung Cheng, “Effects of wind energy supplied by independent power producers on the generation dispatch of electric power utilities,” *Elec. Power Energy Sys.*, vol. 30, pp. 553–561, 2008. (SCI)
13. Chien-Kun Wang, Jyh-Jier Ho, Jhen-Liang Nian, Yuang-Tung Cheng, William Lee, Chih-Chiang Lu, Bao-Shun Yau, Hsing-Wang Tsai, and Chung-Cheng Chang, “The Performance of Indium Tin Oxide Films Deposited on Plastic Substrate Applied for Solar-Cell Buoy,” *J. Marine Sci. Tech.*, vol. 18, no. 6, pp. 825-829, 2010. (SCI).
14. Yuang-Tung Cheng, Jyh-Jier Ho, Tang-Yu Wei, Jia-Show Ho, Sheng-Shih Wang, Jie-Xian Lin, Chi-Hsiao Yeh and Kang L. Wang, “Resonant-tunneling-diode effect in Si-based double-barrier structure sputtered at room temperature,” *International Journal of Research in Engineering and Science*, vol. 3 Issue 6, PP.25-28, 2015.

Conference Papers

1. 鄭遠東*、張迦勒、呂宗霖、韓慷辰、何志傑, “新型擺盪式風力發電機設計與分析,” 創新發明應用研討會, 台中, 國立勤益科技大學, 2022。最佳論文
2. 呂宗霖、鄭遠東*、林顛軒、莊智皓, “研製車輛接近預警裝置,” 創新發明應用研討會, 台中, 國立勤益科技大學, 2021
3. 鄭遠東*、呂宗霖、葉紘維、吳冠頡, “飛行器急難定位系統整合技術分析,” 工程科技應用研討會, 臺北, 台北城市科技大學, 2021。
4. 鄭遠東*、呂宗霖、莊智皓、張迦勒, “利用光達技術處理無人機接近預警裝置,” 工程科技應用研討會, 臺北, 台北城市科技大學, 2021。
5. 鄭遠東、呂宗霖、葉紘維, “以 Arduino 為基礎之電動車車輛防撞系統,” 工程科技應用研討會, 臺北, 台北城市科技大學, 2020。
6. 葉紘維、洪翰廷、鄭遠東、連冠宇 “具強制對流之流道板對於玻璃表面吸收輻射熱量之影響,” 工程科技應用研討會, 臺北, 台北城市科技大學, 2020。
7. 葉紘維、鄭遠東、楊承鑫、連冠宇, “利用抗反射模及酸處理技術改善矽晶太陽能電池效能,” 工程科技應用研討會, 臺北, 台北城市科技大學, 2019。
8. 鄭遠東、何志傑、洪民翰、姚寶順, “多層奈米膜電致變色元件應用於國防科技及綠色節能裝備之性能評估,” 第 24 屆國防科技學術研討會, 龍潭 國防大學, 2015。

9. 莊滢叡, 傅駿凱, 鄭遠東, “設施工程導入整體壽期成本模式之分析與研究,” 新新季刊, 第 50-59 頁, 2015。
10. Shevtsova Maria, Wu Ping-Chen, Cheng Yuang-Tung, Wu Jiing Kae “Structural Optimization of MEMS-Based Hydrophones with Perforated Active Membrane” *Conference Schedule of the 2nd International Conference on Mechatronics and Applied Mechanics (ICMAM 2012)*
11. Yuang-Tung Cheng, Jyh-Jier Ho, Chih-Chin Yang, Tang-Yu Wei, Duo-Shang Chen, and Shun-Hsyung Chang, “The Study of Resonant Tunneling Effect on Si-based RTD with Double Barrier Structure,” *2010 International Conference on Optics and Photonics Taiwan (OPT'10)*, STUT OPT1-P-051.
12. 張順雄、鄭遠東、周慶平、陸家樑, “水下載具定位之估測:應用固態電子磁力感測器,” 海洋及水下科技季刊 96 年度第 17 卷第一期。
13. 賴威廷、何志傑、王建坤、鄭遠東, “利用有機溶劑清潔奈米曝光機之鏡頭以提升產品良率,” 2010 奈米技術與材料研討會, 彰化大葉大學, 2010。
14. 張智閔、何志傑、鄭遠東、王建坤, “以 PSpice 模擬與分析消除奈米尺度之機台電力諧波,” 2010 奈米技術與材料研討會, 彰化大葉大學, 2010。
15. 洪民翰、何志傑、鄭遠東、王建坤、李維中、路智強、姚寶順, “於塑膠基板上鍍製多層透明導電膜之研究,” 2010 奈米技術與材料研討會, 彰化大葉大學, 2010。
16. Tang Yu Wei, Chih Chin Yang, Jyh Jier Ho, Yuang Tung Cheng, Jhen Yi Wu, and Shun Hsyung Chang, 2010, Fabrication of Silicon-based Thermal Sensor by the Negative Differential Resistance, *The Proceeding of 8th Conference on Microelectronics Technology and Applications (C'META 2010)*, pp. 123-127, May 21, 2010, Kaohsiung, Taiwan. (ISSN9789860-23143)(ISBN978-986-02-3143-4)
17. Duo-Shang Chen, Jyh-Jier Ho, Chien-Kun Wang, Yuang-Tung Cheng, Jheng-Syun Du, Ching-Hsi Lin, Dimitre Dimitrov, “Processing of Metallization Wrap-Through for Black Multi-Crystalline Solar Cells,” *2010 International Conference on Optics and Photonics Taiwan (OPT'10)*, Tainan, STUT, OPT9-O-04.
18. Yuang-Tung Cheng, Chien-Kun Wang, Jyh-Jier Ho, Shuo-Huang Yuan, William Lee, Chih-Chiang Lu, and Bao-Shun Yau, “Characterization of ITO films Prepared on Flexible Plastic Substrates by Roll-to-Roll sputtering at room temperature,” *2010 International Conference on Flexible and Printed Electronics (ICFPE 2010)* Oct. 28-29, 2010,

10TW013-2.

19. Min-Han Hong, Jyh-Jier Ho, William Lee, Yuang-Tung Cheng, Chien-Kun Wang, Chih-Chiang Lu, and Bao-Shun Yau. "IZO/Ag/IZO multilayer films for the application of low resistance and highly transparent electrode," *2010 International Conference on Flexible and Printed Electronics (ICFPE 2010)* Oct. 28-29, 2010, S8-2-1.
20. 林育閔、吳龍發、何志傑、鄭遠東、張忠誠, "運用高功率 ND:YAG 雷射模擬與研製矽基光伏打元件," 第八屆微電子技術發展與應用研討會, 高雄 國立高雄海洋科技大學, 2010。
21. 魏堂育、楊誌欽、何志傑、鄭遠東、吳振毅、張順雄, "運用共振穿隧二極體研製矽基溫度感測器", 第八屆微電子技術發展與應用研討會, 高雄 國立高雄海洋科技大學, 2010。
22. 劉嘉哲, 何志傑、林景熙、徐偉智、Dimitre Z. Dimitrov、蔡松雨、李維中、楊奇達、鄭遠東、王建坤, "在選擇性射極結構上利用雷射開孔處理研製多晶矽太陽能電池" 第八屆微電子技術發展與應用研討會, 高雄 國立高雄海洋科技大學, 2010。
23. Jia-Jhe Liou, Jyh-Jier Ho, Yuang-Tung Cheng, Ching-His Lin, Dimitrov Zahariev, Song-Yeu Tsai, Chien-Kun Wang and William J. Lee, "Anti-reflection and Surface Passivation of Black Multi-Crystalline Solar Cells using PECVD SiN Film and Thin Thermal SiO", *Proceedings of CSCT (International Thin Films Conference)*, Taipei, Taiwan, C-153-O, p.134, Dec. 14-16, 2009.
24. Yu-Hung Lin, Long-Fa Wu, Jyh-Jier Ho, Yuang-Tung Cheng, Chien-Kun Wang and Daw-Shang Huang, "Investigation of Texturization for Single Crystalline Silicon Solar Cells with Laser Texturing and Anti Reflection Coating", *Proceedings of CSCT (International Thin Films Conference)*, Taipei, Taiwan, A-048-O, p.112, Dec. 14-16, 2009.
25. Yuang-Tung Cheng, Long-Fa Wu, Yu-Hung Lin, Jyh-Jier Ho, Chien-Kun Wang and Daw-Shang Huang, "Effect of Laser Texturing on Opto-electrical Parameters of Single Crystalline Si Solar Cells", *Proceedings of CSCT (International Thin Films Conference)*, Taipei, Taiwan, A-074-P, p.159, Dec. 14-16, 2009.
26. Jia-Jhe Liou, Jyh-Jier Ho, Yuang-Tung Cheng, Ching-His Lin, Dimitrov Zahariev, Song-Yeu Tsai, Chien-Kun Wang and William J. Lee, "Anti-reflection and Surface Passivation of Black Multi-Crystalline Solar Cells by SiN using PECVD ", *Proceedings of IEDMS (International Electron Devices & Materials Symposia)*, Taiwan, GD-11, p.26, Nov. 19-20, 2009.
27. Yu-Hung Lin, Long-Fa Wu, Jyh-Jier Ho, Yuang-Tung Cheng, Chien-Kun Wang and Daw-Shang Huang, "Laser Surface Treatment of Single Crystalline Si Solar Cells for Enhancing Conversion Efficiency",

Proceedings of IEDMS (International Electron Devices & Materials Symposia), Taiwan, GD-18, p.2, Nov. 19-20, 2009.

28. Long-Fa Wu, Yu-Hung Lin, Jyh-Jier Ho, Yuang-Tung Cheng, Chien-Kun Wang, Daw-Shang Hwang, "Investigation of Texturization for Single Crystalline Silicon Solar Cells with Laser Texturing Anti Reflection Coating," *Proceedings of IEDMS (International Electron Devices & Materials Symposia)*, Taiwan, GD-18, p.25, Nov. 19-20, 2009.
29. Wei Tang-Yu, Jyh-Jier Ho, Chih-Chin Yang, Yuang-Tung Cheng, and Shun-Hsyung Chang, "The Silicon Materials of Negative Differential Microwave Devices Applied to Underwater Communication," *Underwater Technology Symposia*, Taiwan, AP-014, 05/08, 2009.
30. Yuang-Tung Cheng, Sheng-Shih Wang, Jong-Hong Jiang, "A Low-Cost Inertial Navigation Technique Aided for Accident Vehicle Accurate Positioning Applications," *AASRC/CSCA Joint Conference*, Taipei, CUST, 2009.
31. 王盛時、何志傑、鄭遠東、黃道祥、張順雄、張忠誠, "慣性導航技術應用於失事載具精確定位", 第十一屆水下技術研討會, 基隆國立臺灣海洋大學, AP-014, 05/08, 2009。
32. 盧永安、何志傑、鄭遠東、龍健華、杜政勳、蔡松雨、張忠誠, "太陽能電池應用於船上電力與效能之改善", 第十一屆水下技術研討會, 基隆國立臺灣海洋大學, AP-014, 05/08, 2009。

PATENTS

1. 黃培華、陸家樑、鄭遠東、陳俊隆、李又青, "直流式再生能源運用於質子交換膜燃料電池(PEMFC)之控制裝置"(THE DC SOURCE OF RENEWABLE ENERGY UTILIZE WITH THE EQUIPMENT IN THE PROTON EXCHANGE MEMBRANE FUEL CELL (PEMFC)) Taiwan Patent, M342626。
2. 黃培華、陸家樑、鄭遠東、古忠傑、陳俊隆、李又青, "可調整電力系統之脈波寬度調整信號為具同步觸發與截止信號的裝置"(MAY ADJUST PWM CONTROL SIGNAL OF THE ELECTRICAL POWER SYSTEM TO HAVE SYNCHRONIZED TRIGGERING AND THE ENDING SIGNAL INSTALLMENT) Taiwan Patent, M336633。
3. 何志傑、賴伯亮、張順雄、鄭遠東、魏堂育, "可調式壓力襯墊式脊椎側彎背架裝置" Taiwan Patent, M347926。
4. 何昇運、鄭遠東、羅文銓、林嘉鋒 "可連接通用串列匯流排即用型模擬燒錄裝置" Taiwan Patent, M374107。