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I. EDUCATION

Ph.D. Industrial Engineering, Purdue University, 1989
 M.S. Quantitative Business Analysis, Louisiana State University, 1985
 B.S. Industrial Management, National Cheng Kung University, 1983

II. PROFESSIONAL EXPERIENCE

2008 – Current **Tsing Hua Distinguished Professor.** Department of Industrial Engineering and Engineering Management (IEEM), National Tsing Hua University (NTHU), Taiwan
 2017 **Principal Investigator/Director.** Advanced manufacturing and service management research center (AMSMRC), NTHU.
 2008 – 2011 **Dean and Chair Professor.** College of Management, National Taipei University of Technology, Taiwan
 2011 – 2014 **Adjunct Chair Professor.** College of Management, National Taipei University of Technology, Taiwan
 2007 – 2010 **Program Director.** Industrial Engineering and Management Program, National Science Council, Taiwan
 2003 – 2008 **Center Director (Founder).** Electronic Business Center (renamed Enterprise Logistics and E-Business Center – ELEBC in 2008), NTHU, Taiwan
 2006 – 2007, 2012 **Visiting Research Fellow.** School of Engineering Systems and Centre for Integrated Engineering Management (CIEAM), Queensland University of Technology, Australia
 2003 – 2006 **Chairperson.** Department of IEEM, NTHU, Taiwan
 1998 – 1999 **Research Fellow and Visiting Professor.** George Mason University and ECRC, Fairfax, Virginia, USA
 1996 – 2008 **Professor.** Department of IEEM, NTHU, Taiwan
 1992 – 1996 **Associate Professor.** Department of Industrial Engineering, NTHU, Taiwan
 1990 – 1992 **Assistant Professor.** Department of Industrial & Manufacturing Systems Engineering, Iowa State University, Iowa, USA
 1990 – 1990 **Visiting Assistant Professor.** School of Industrial Engineering, Purdue University, USA

III. RESEARCH INTERESTS

Knowledge Engineering, E-Business/E-Analytics/E-Discovery, IP Analysis and Management, Engineering Asset Management, Renewable Energy Management, Patent Informatics

IV. HONORS AND AWARDS

- 2024 – Received the **Lifelong Science Influence Rankings (1960- 2023)** and **2023 Science Impact Rankings** in the Stanford University published **World's Top 2% Scientists** lists.
- 2023 – Received the **Best Paper Award** in 2023 Chinese Institute of Industrial Engineers Annual Conference, Taichung, Taiwan, Dec. 9, 2023.
- 2022 – Received the **Lifelong Science Influence Rankings (1960- 2021)** and **2021 Science Impact Rankings** in the Stanford University published **World's Top 2% Scientists** lists.

4. 2021 – Received the **2020 Science Impact Rankings** in the Stanford University published World's Top 2% Scientists list.
5. 2019 – Received the **Best Paper Award** in 2019 Chinese Institute of Industrial Engineers Annual Conference, Taipei, Taiwan, Nov. 23, 2019.
6. 2019 – Received the **Most Active Technical Committee Award** in 2019 IEEE International Conference on Systems, Man, and Cybernetics (IEEE SMC 2019), Bari, Italy, Oct. 6-9, 2019.
7. 2018 – Received the **Best Paper Award** in 2018 International Conference on Advanced Manufacturing (ICAM 2018), Yunlin, Taiwan, Nov. 16-18, 2018.
8. 2016 – Received the **Best Paper Award** in The 10th International Conference on Advanced Information Technologies and The 6th Forum on Taiwan Association for Web Intelligence Consortium, Taichung, Taiwan, April 23, 2016.
9. 2015 – Received the **Best Paper Award** in 2015 Chinese Institute of Industrial Engineers Annual Conference, Taichung, Taiwan, Dec. 12, 2015.
10. 2014 – **CIIE Fellow**, Chinese Institute of Industrial Engineers Fellow, Taiwan.
11. 2012~2015 – **Director of International Society of Engineering Asset Management (ISEAM)**
12. 2010 – **International Society of Engineering Asset Management (ISEAM) Fellow**
13. 2009 – **Industrial Engineering Medal** – Academic Research, Chinese Institute of Industrial Engineers, Taiwan.
14. 2007 – Received the **MBAA Distinguished Paper Award** in Operations Management & Entrepreneurship, Annual MBAA International Conference, Chicago, IL, USA, March 28-30, 2007.
15. 2004 – **ASME Fellow**, American Society of Mechanical Engineers, USA.
16. 1999 – 2001 – National Science Council (NSC) Research Excellent Award, Taiwan.
17. 1997 – Best Research Paper Award, Chinese Institute of Engineers (5 recipients nation-wide in all engineering disciplines), Taiwan.
18. 1997 – Best Research Paper Award, Chinese Institute of Industrial Engineers (2 recipients nation-wide in IE discipline), Taiwan.
19. 2007 – Best Research Paper Award, Chinese Institute of Industrial Engineers (3 recipients nation-wide in IE discipline), Taiwan.
20. 1996 – The Best Organizer of Symposium and Sessions (BOSS) Award, IMECE, ASME International Conference, USA.

V. PROFESSIONAL SERVICES AND CREDITS

Journal Editorial Appointments:

1. **Senior Editor - *Journal of Engineering Design* (2022~Now)**
2. **Special Content Editor – *Advanced Engineering Informatics* (2020~Now)**
3. **Associate Editor – *Advanced Engineering Informatics* (2015~2020)**
4. **Associate Editor – *World Patent Information*, 2020~2023 (Editor-in-Chief, 2024~Now)**
5. Associate Editor – *IEEE Trans. Systems, Man, Cybernetics: Systems* (2015~2022)
6. Editor-in-Chief – *International Journal of Electronic Business Management* (2003 ~ 2008; 2012~2016)
7. Editor-in-Chief – *Journal of the Chinese Institute of Industrial Engineers* (2003~2004)
8. Senior Editor – *Journal of the Chinese Institute of Industrial Engineers* (2000~2002)
9. Advisory Board – *Journal of the Chinese Institute of Industrial Engineers* (2005 ~ 2008)
10. Editorial Board – *International Journal of Agile Systems and Management* (2016 ~ Now)
11. Editorial Board – *World Patent Information* (2016 ~ 2020)
12. Editorial Board – *Advanced Engineering Informatics* (2011~2015)
13. Editorial Board – *Journal of Industrial and Production Engineering* (2009~2023), (Honorary (Past) Editors, 2024~Now)
14. Editorial Board – *International Journal of Advanced Logistics* (2014 ~ 2019)

15. Editorial Review Board – *International Journal of Applied Logistics* (2010~2022)
16. Editorial Board – *Journal of the Chinese Society of Mechanical Engineers* (1998~2002)
17. Editorial Board – *Industry Forum* (2001~2006)
18. Editorial Board – *IIE Transactions* (2001~2003)
19. Guest Editor – International Journal of Advanced Engineering Informatics (SCI), many issues; Expert Systems with Applications (SCI); Journal of Systems Science and Systems Engineering (SCI), 3 issues; IEEE Transactions on Components, Packaging, and Manufacturing Technology; International Journal of Computer Applications in Technology, 2 issues; International Journal of Technology Management (SCI/SSCI)

Professional Societies:

1. Society of Mechanical Engineering (**ASME**) – **Fellow**. Received Best Organizer of Symposium and Session (BOSS) Award, IMECE 1996
2. International Society of Engineering Asset Management (**ISEAM**) – **Fellow**, Executive Board Director (2012 ~ 2015)
3. International Society of Transdisciplinary Engineering (**ISTE**) – **Technical Committee Member (ISPE was renamed to ISTE in 2018)**
4. International Society of Productivity Enhancement (**ISPE**) - **Executive Board Member**, Host ISPE international conference CE2009 in Taipei)
5. **IEEE** – **Senior Member**, CSCWD Technical Committee (TC) Co-Chair, IEEE Systems, Man, and Cybernetics (IEEE-SMC) Society (TC Member)
6. Chinese Institute of Industrial Engineers (**CIIE**) – **Fellow**, Secretary General, Board Member, Society Journal - JCIIE Editor-in-Chief

Government and NGO Advisory and Professional Services:

1. **Board Member, Board of Directors**. The Automotive Research & Testing Center (ARTC), Taiwan (2021 ~ Now).
2. **Technology Advisor**. Ministry of Economic Affairs, Executive Yuan, Taiwan (central government) (2009 ~ 2017)
3. **Chair of Engineering Accreditation Reviews** for Accreditation Council, The Institute of Engineering Education Taiwan (IEET), a signatory of The Washington Accord, Seoul Accord, and Sydney Accord.
4. **Program Director** - Industrial Engineering and Management, National Science Council (NSC), Executive Yuan, Taiwan
5. **Advisor**. Industrial Technology Research Institute (ITRI) and Cooperate Synergy Development Center (CSD), Taiwan
6. **Advisor**. Institute for Information Industry (III), Taiwan

International Conference and Symposium Organizing:

1. 2017 – Conference co-chair, 2017 ISPE International Conference on Transdisciplinary Engineering (TE2017), Singapore, July 10-13, 2017.
2. 2017 – Program Committee, The 2017 IEEE International Conference on Systems, Man, and Cybernetics (IEEE SMC 2017), Banff, Canada, October 5-8, 2017.
3. 2016 – Special Session Co-Chair, The 2016 IEEE International Conference on Systems, Man, and Cybernetics (IEEE SMC 2016), Budapest, Hungary, October 9-12, 2016.
4. 2014 – General Conference Chair, The 18th IEEE International Conference on Computer Supported Cooperative Work in Design International Conference (CSCWD 2014), sponsored by IEEE SMC Society, Hsinchu, Taiwan, May 21~23, 2014.
5. 2012 – International Scientific Committee Chair, International Conference on Advanced Manufacturing (ICAM 2012), sponsored by SME (Taiwan Chapter), Yilan, Taiwan

6. 2010 – General Co-Chair, International Conference on Mass Customization and Personalization Asia 2010 (MCP Asia 2010), Taipei, Taiwan
7. 2009 – General Co-Chair, 16th ISPE International Conference on Concurrent Engineering (CE2009), July 20-24, 2009, Taipei, Taiwan
8. 2009 – Symposium Organizer, Symposium on Advances and Technical Challenges in RFID Research and Applications, 2009 ASME International Conference on Manufacturing Science and Engineering (MSEC2009), Oct. 4~7, 2009, W. Lafayette, Indiana, USA.
9. 2006~Current – Program Committee Member, IEEE CSCWD International Conference (CSCWD2006 ~ CSCWD2010)
10. 2006~Current – Program Committee Member, ISPE International Conference on Concurrent Engineering (CE2006 ~ CE2010) and ISPE Society Executive Board Member.
11. 2006 – Conference Co-Chair, 36th International Conference on Computer and Industrial Engineering (ICCIE), Taipei, Taiwan.
12. 2001 – International Conference Organizer – The 2001 APEC Small & Medium Enterprise E-Commerce Symposium, Hsinchu, Taiwan, June.
13. 2000 – Cluster Chair – “E-Business International Perspectives,” 2000 INFORMS Meeting, San Antonio, Texas, USA.
14. 1999 – Cluster Chair – “Enterprise Integration,” 1999 INFORMS Meeting, Cincinnati, Ohio, USA.
15. 1996 – Cluster Chair – “Advanced Manufacturing Technology,” 1996 Institute for Operations Research and Management Science (INFORMS) Meeting, Washington D.C., USA.
16. 1996 – Symposium Organizer and Contributing Editor of the Proceedings – “Advanced Product Data Management,” 1996 ASME International Mechanical Engineering Congress and Exhibition (IMECE), MED-Vol-4, Atlanta, Georgia, USA.

VI. GRADUATE STUDENTS THESES SUPERVISOR (1990~2025 June)

(A) Ph.D. Students Graduated: **16**

(B) M.S. Students Graduated: **137**

VII. JOURNAL PUBLICATIONS (Complete list of publications can be provided upon request)

1. Trappey, A. J. C., Liu, C. R., and Chang, T.-C., 1988, “Fuzzy non-linear programming: Theory and application in manufacturing,” *International Journal of Production Research*, Vol. 26, No. 5, pp. 975-985.
2. Trappey, A. J. C., and Liu, C. R., 1990, “A literature survey of fixture design automation,” *International Journal of Advanced Manufacturing Technology*, Vol. 5, pp. 240-255.
3. Trappey, A. J. C., and Liu, C. R., 1992, “An automatic workholding verification system,” *Robotics and CIM*, Vol. 9, No. 4, pp. 321-326.
4. Trappey, A. J. C*, Liu, C. R., and Matrubhutam, S., 1992, “An integrated system shell concept for design and planning,” *Journal of Design and Manufacturing*, Vol. 2, pp. 1-17.
5. Trappey, A. J. C., and Liu, C. R., 1993, “Automated fixture configuration using projective geometry approach,” *International Journal of Advanced Manufacturing Technology*, Vol. 8, pp. 297-304.
6. Huang, S.-H., and Trappey, A. J. C., 1992, “The integration of modular fixture database, fixturing knowledge base and 3-D fixture planning interface,” *Computers & Industrial Engineering*, Vol. 23, No. 4, pp. 381-385.

7. Downs, K.A., and Trappey, A. J. C., 1992, "A sequential block approach to the design of a cost estimation system," *Computers & Industrial Engineering*, Vol. 23, No. 4, pp. 423-426.
8. Trappey, C. V., Trappey, A. J. C., Feinberg, R., 1993, "A knowledge base system for predicting merchandise investment returns," *Applied Artificial Intelligence - An International Journal*, Vol. 7, pp. 207-221.
9. Trappey, C. V., and Trappey, A. J. C., 1993, "Planning merchandise investments using fuzzy optimization," *Journal of Intelligent and Fuzzy Systems*, Vol. 1, No. 3, 189-197.
10. Trappey, A. J. C.*, Matrubhutam, S., 1993, "Fixture configuration using projective geometry," *Journal of Manufacturing Systems*, Vol. 12, No. 6, pp. 486-495.
11. Trappey, A. J. C.*, and Lai, C.-S., 1995, "A data representation scheme for sheetmetal parts: Expressing manufacturing features and tolerance requirements," *Journal of Manufacturing Systems*, Vol. 14, No. 6, pp. 393-405.
12. Trappey, C.V., Trappey, A.J., Hwang, S.J., 1995, "Computer aided quality function deployment for retail automation," *Journal of Management and Systems*, Vol. 2, No. 1, pp. 31-49 (in Chinese).
13. Trappey, A.J.C.*, Hou, J.L., Yeh, D.C., 1996, "Development of a computer aided modular fixture planning system," *Journal of the Chinese Institute of Industrial Engineers*, Vol. 13, No. 4, pp. 371-379 (in Chinese). **[Received the 1997 outstanding research paper awards from the Chinese Institute of Engineers and the Chinese Institute of Industrial Engineers.]**
14. Trappey, C. V.*, Trappey, A. J. C., and Hwang, S.-J., 1996, "A computerized quality function deployment approach for retail services," *Computers & Industrial Engineering*, Vol. 30, No. 4, pp. 611-622.
15. Trappey, A. J. C.*, Peng, T.-K., Lin, H.-D., 1996, "An object-oriented bill of materials system for dynamic product management," *Journal of Intelligent Manufacturing*, Vol. 7, pp. 365-371.
16. Peng, T.-K., and Trappey, A. J. C.*, 1997, "CAD-integrated engineering data management system for spring design," *Robotics and Computer-integrated Manufacturing*, Vol. 12, No. 3, pp. 271-281.
17. Hou, J.L., and Trappey, A.J.C., 1997, "A methodology for applying V-blocks and clamps to non-prismatic workpart fixture," *International Journal of Computer Application in Technology* Vol. 10, Nos. 3/4, .pp. 152-169.
18. Hou, J.L., and Trappey, A.J.C., 1997, "The illustration of systematic fixture design approach for automotive part machining," *Journal of the Chinese Society of Mechanical Engineers* (in English), Vol. 18, No. 6, pp. 499-511.
19. Trappey, A.J.C.*, Liu, T.-H., and, Hwang, C.-T., 1997, "Using EXPRESS data modeling technique for PCB assembly analysis," *Computers in Industry*, Vol. 34, pp. 111-123.
20. Liu, T.-H., Trappey, A. J. C., and Chan, F.-W., 1997, "A scheduling system for IC packaging industry using STEP enabling technology," *IEEE Trans. on Component, Packaging, and Manufacturing Technology, Part C*, Vol. 20, No. 4, pp. 256-267.
21. Peng, T.-K. and Trappey, A.J.C., 1997, "Developing a STEP-based engineering data management system," *Journal of Management and Systems*, Vol. 4, No. 2, pp. 91-126.

22. Peng, T.-K. and Trappey, A.J.C.*, 1998, "A step toward STEP-compatible engineering data management - the data models of product structure and engineering changes," *Robotics and Computer-integrated Manufacturing*, Vol. 14, No. 2, pp. 89-109.
23. Liu, T.-H., Trappey, A.J.C., and King, Z.-J., 1998, "A computerized calibration service supporting system (I): system design and development," *International Journal of Computer Applications in Technology*, Vol. 12, No. 1, pp. 46-59.
24. Trappey, C.V., and Trappey, A.J.C., 1998, "A chain-store marketing information system: realizing internet-based enterprise integration and electronic commerce," *Industrial Management and Data System*, 98/5, pp. 205-213. **[Received Highly Commended Award, Literati Club, MCB University Press.]**
25. Tu, C.-L., Trappey, A.J.C., 1998, "Decision making of mortgage loan approval using artificial neural network approach," *Journal of The Chinese Fuzzy Systems Association* (Taiwan), Vol. 4, No. 1, pp. 31-44.
26. Trappey, C.V., and Trappey, A.J.C., 1998, "Internet-based retail information integration and electronic commerce: Using object oriented principles," *Communications of the ICISA*, Fall, pp. 14-24.
27. Liu, T.-H., Trappey, A.J.C., and Shyu, J.-B., 1999, "ISO10303-based PCB assembly data model for assembly analysis," *Concurrent Engineering: Research and Applications*, Vol. 7, No. 2, June, pp. 159-176.
28. Trappey, C.V., and Trappey, A.J.C., Gulledge, T.R., and Sommer, R., 1999, "Transferring information technology to the defense industry supply chains: The role of electronic commerce resource centers," *Journal of Management Information System* (Taiwan), Vol. 6, No. 1, pp.181-197.
29. Hou, J.-L., and Trappey, A.J.C., 1999, "On the development of computer-aided hydraulic fixture selection system," *Journal of the Chinese Institute of Industrial Engineers*, Vol. 16, No. 1, pp. 39-61.
30. Trappey, A.J.C., and Chang, C.R., 1999, "ISO10303-compliant computer-aided wheel-rim design system – the framework and data model," *International Journal of Production Research (IJPR)*, Vol. 38, No. 6, pp. 1325-1338.
31. Yao, Y.H., and Trappey, A.J.C.*, 2000, "ISO10303 compatible data model and its applications for PC configuration management," *Robotics and CIM*, Vol. 16, No. 5, pp. 339-352.
32. Peng, T.K., and Trappey, A.J.C.*, 2000, "以 STEP 為基礎建構整合性產品資料管理雛形系統," *Journal of Chinese Institute of Industrial Engineers*, Vol. 17, No. 1, pp. 87-101 (in Chinese).
33. Trappey, C.V.*, and Trappey, A.J.C., 2001, "Electronic commerce in greater China," *Industrial Management and Data System*, Vol. 101, No. 5, pp. 201-209.
34. Trappey, C.V., Trappey, A.J.C*, and Chang, Y.-P., 2000, "Internet Storefront Reengineering Using an Electronic Schema Approach," *Human Systems Management*, Vol. 19, pp. 295-303.

35. Liu, T.-H.*, Trappey, A.J.C., and Lin, C.-S., 2000, "Development of SDAI-based common access interface for object-oriented DBMS," *The International Journal of Concurrent Engineering: Research & Applications (CERA)*, Vol. 8, No. 3, pp. 230-241.
36. Trappey, A.J.C., Wang, H.-C., and Hou, J.-L., 2000, "Enable e-business applications by integrating ERP with Internet-based EDI," *The International Journal of Agile Manufacturing* (Accepted, forthcoming).
37. Hou, J.L.*, and Trappey, A.J.C., 2001, "A computer-aided fixture design system for comprehensive modular fixtures," *International Journal of Production Research*, Vol. 39, No. 16, pp. 3703-3725.
38. Hou, J.L.*, Trappey, A.J.C., and Z.-X. You, 2001, "Development of product data management system considering build-to-order PC configuration management," *Journal of the Chinese Society of Mechanical Engineers* (in English), Vol. 22, No. 5, pp. 409-420.
39. Trappey, A.J.C.*, and Ho, P.-S., 2002, "Human resource assignment system for distribution centers," *Industrial Management and Data Systems*, Vol. 102, No. 2, pp. 64-72.
40. Hou, J.L., Trappey, C.V., and Trappey, A.J.C., 2003, "Enabling a centralized enterprise knowledge management hub for the high technology value chain," *International Journal of Service Technology and Management*, Vol. 4, No. 4, pp. 424-441.
41. Hou, J.L.*, Trappey, C.V., and Trappey, A.J.C., 2002, "A web-based document server for knowledge management in a supply chain," *International Journal of Agile Manufacturing*, Vol. 5, No. 1, pp. 77-88.
42. Yao, Y.-H., Trappey, A.J.C.*, and Ho, P.-S., 2003, "XML-based ISO9000 electronic document management system," *Robotics and CIM*, Vol. 19, No. 4, pp. 355-370.
43. Yao, Y.H., and Trappey, A.J.C.*, 2003, "Using ISO10303 data standard and XML standard web technology to enable ISO9000 document management," *International Journal of Computer Applications in Technology*, Vol. 18, No. 1-4, pp. 117-132.
44. Huang, C.-J., Trappey, A.J.C.*, and Yao, Y.-H., 2003, "Design and develop WfMC-based modularized network collaborative design system (WfMC為基之模組化網路協同設計系統分析與建置)," *Journal of Chinese Institute of Industrial Engineers*, Vol. 20, No. 4, pp. 422-434.
45. Huang, C.-J., Trappey, A.J.C.*, Yao, Y.-H., Yeh, S.-C., and Cheng, Y.-H., 2003, "Adopting contact center approach to collaborative product development - using TFT-LCD design chain as case study," *International Journal of E-Business Management*, Vol. 1, No. 3, pp. 120-128.
46. Trappey, A.J.C.*, Trappey, C.V., Hou, J.-L., and Chen, B.J.G., 2004, "Mobile agent technology and application for online global logistic services," *Industrial Management and Data System*, Vol. 104, No. 2, pp. 169-183.
47. Ho, P.-S., Trappey, A.J.C.*, and Trappey, C.V., 2004, "Data interchange services: use of XML hub approach for the aerospace supply chain," *International Journal of Technology Management*, Vol. 28, No. 2, pp. 227-242.
48. Trappey, A.J.C.*, and Trappey, C.V., 2004, "Global content management services for product providers and purchasers," *Computers in Industry*, Vol. 53, pp. 39-58.

49. Hsu, F.-C., Trappey, A.J.C., Hou, J.-L.*, Trappey, C.V., and Liu, S.-J., 2004, "Develop a multi-channel legal knowledge service center with knowledge mining capability," *International Journal of E-Business Management*, Vol. 2, No. 2, pp. 92-99.
50. Trappey, A.J.C., and Ho, P.-S., 2005, "Design and develop an e-exchange platform using XML trade hub approach for global supply chain integration," *Journal of Management Information System*, Vol. 12, No. 3, pp. 67-86.
51. Yao, Y.-H., Lin, Gilbert Y.P., Trappey, A.J.C., 2005, "Using knowledge-based intelligent reasoning to support dynamic equipment diagnosis and maintenance," *International Journal of Enterprise Information Systems*, Vol. 2, No. 1, pp. 17-29.
52. Hsu, F.-C.*, Trappey, A.J.C., Trappey, C.V., Hou, J.-L., and Liu, S.-J., 2006, "Technology and knowledge document cluster analysis for enterprise R&D strategic planning," *International Journal of Technology Management*, Vol. 36, No. 4, pp. 336-353.
53. Trappey, A.J.C.*, Trappey, C.V., Lin, F.T.L., 2006, "Automated silicon intellectual property trade using mobile agent technology," *Robotics and CIM*, Vol. 22 (2006), pp. 189-202.
54. Trappey, A.J.C., and Lu, T.-H., 2006, "Process reengineering of collaborative mold design and manufacturing – a system engineering evaluation approach," *Material Science Forum – Progress on Advances Manufacture for Micro/Nano Technology 2006*, pp. 619-624.
55. Chiang, T.A., Trappey, A.J.C.*, Ku, C.C., 2006, "Using a knowledge-based intelligent system to support dynamic design reasoning for a collaborative design community", *International Journal of Advanced Manufacturing Technology*, Vol. 31, No. 5, pp. 421-433.
56. Trappey, A.J.C.*, Hsu, F.-C., Trappey, C.V., and Lin, C.-I., 2006, "Development of a patent document classification and search platform using a back-propagation network," *Expert Systems with Applications*, Vol. 31, pp. 755-765.
57. Trappey, C.V.*, Shih, T.Y., and Trappey, A.J.C., 2007, "Modeling international investment decisions for financial holding companies," *European Journal of Operational Research*, Vol. 180 (2007), pp. 800-814.
58. Trappey, A.J.C., Trappey, C.V.*, and Hsieh, E.C.H., 2006, "Automatic categorization of patent knowledge for R&D knowledge self-organization," *Journal of Management*, Vol. 23, No. 4, pp. 413-424.
59. Huang, C.-J.*, Trappey, A.J.C., and Yao, Y.-H., 2006, "Developing an agent-based workflow management system for collaborative product design," *Industrial Management and Data System*, Vol. 106, No. 5, pp. 680-699.
60. Trappey, A.J.C., Chiang, T.-A.*, and Ke, S., 2006, "Developing an intelligent workflow management system to manage project processes with dynamic resource control," *Journal of Chinese Institute of Industrial Engineers*, Vol. 23, No. 6, pp. 484-493. (TSSCI/EI) **[Received the 2007 outstanding research paper awards from the Chinese Institute of Industrial Engineers.]**

61. Chiang, T.-A., and Trappey, A.J.C.*, 2007, "Development of value chain collaborative model for product lifecycle management and its LCD industry adoption," *International Journal of Production Economics*, Vol. 109, No. 1-2, pp. 90-104.
62. Trappey, A.J.C.*, and Hsiao, D.W., 2008, "Applying collaborative design and modularized automotive assemblies for automotive ODM supply chain," *Computers in Industry*, Vol. 59, pp. 277-287.
63. Trappey, C.V., Trappey, A.J.C.*, and Lin, F.T.L., 2007, "Developing silicon intellectual property E-trade mechanisms for system on chip design and integration," *International Journal of Computer Integrated Manufacturing (IJCIM)*, Vol. 20, No. 5, pp. 423-435. (SCD)
64. Trappey, C.V., Trappey, A.J.C.*, Lin, G.Y.P., Liu, C.S., and Lee, W.T., 2007, "Business and logistic hub integration to facilitate global supply chain linkage," *Journal of Engineering Manufacture, Part B*, Vol. 221, pp. 1221-1233.
65. Trappey, A.J.C.*, Lin, G.Y.P., Ku, C.C., and Ho, P.-S., 2007, "Design and analysis of rule-based knowledge system supporting intelligent dispatching and its application in TFT-LCD industry," *International Journal of Advanced Manufacturing Technology*, Vol. 35, No. 4, pp. 385-393.
66. Trappey, A.J.C.*, and Trappey, C.V., 2008, "An R&D knowledge management method for patent document summarization," *Industrial Management and Data System*, Vol. 108, No. 2, pp. 245-257.
67. Trappey, C.V., Trappey, A.J.C.*, Liu, C.S., Lee, W.T., and Hung, Y.L., 2008, "The design and evaluation of a supply chain logistic hub for automobile and parts distribution," *Materials Science Forum*, Vol. 594, pp. 119-131.
68. Hsiao, D.W.*, Trappey, A.J.C., Ma, L., Fan, Y.-C., and Mao, Y.-C., 2008, "Agent-based integrated and collaborative engineering asset management," *Materials Science Forum*, Vol. 594, pp. 481-493.
69. Wognum, N., and Trappey, A.J.C., 2008, "PLM challenges," *Advanced Engineering Informatics*, Vol. 22 (2008), pp. 419-420.
70. Trappey, A.J.C., and Chiang, T.-A.*, 2008, "A DEA benchmarking methodology for project planning and management of new product development under decentralized profit-center business model," *Advanced Engineering Informatics*, Vol. 22 (2008), pp. 438-444.
71. Chiang, T.-A., Trappey, A.J.C., Chen, W.-C., 2008, "Benchmark new product development processes using DEA-based modularized approach," *Issues in Information Systems*, Vol. IX, No. 2, pp. 153-162.
72. Trappey, A.J.C., Taghaboni-Dutta, F., and Trappey, C.V., 2008, "A framework for a green product lifecycle management system," *Issues in Information Systems*, Vol. IX, No. 2, pp. 123-131.
73. Trappey, C.V., Trappey, A.J.C.*, Chiang, T.-A., and Kuo, J.-Y., 2009, "A strategic product portfolio management methodology considering multiple objectives and enterprise R&D resource constraints," *The International Journal of Technology Management*, Vol. 48, No. 2, pp. 258-276.

74. Trappey, A.J.C., Lu, T.-H.*, and Fu, L.-D., 2009, "Development of an intelligent agent system for collaborative mold production with RFID technology," *Robotics and CIM*, Vol. 25, No. 1, pp. 42-56.
75. Hsiao, D.W., Trappey, A.J.C.*, Ma, L., Ho, P.-S., 2009, "An integrated platform of collaborative project management and silicon intellectual property management for IC design industry," *Information Sciences*, Vol. 179, Issue 15, pp. 2576-2590.
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VIII. BOOK PUBLICATIONS

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IX. SHORT LIST OF National Science and Technology Council (NSTC) FUNDED RESEARCH PROJECTS (2006~Now)

Project Title	Role	Project Period
Ontology-Based Knowledge Document Categorization Approach for R&D Management	PI	2006~2009
A Ontology Based Approach for Automatic Patent Document Summarization	PI	2006~2008
Research Planning and Development for the Industrial Engineering and Management Program in National Science Council's Engineering Division	PI	2007~2010
Advanced Methodology and Techniques for Innovative Green Product Development and Product Life Cycle Assessment	PI	2008~2011
Integrated Patent Analysis Methodology for Technology Forecasting and Management - Using RFID as Case Example	Co-PI	2008~2011
A Negotiation Strategy Study of Collaborative Maintenance Chain and Its Multi-Agent Platform Design and Development	PI	2009~2012
Increase Taiwan IEM Visibility and Prestige in International Community by Participating in Societies' Key Positions, Fellowship, and SCI Journal Editorial Teams (2009~2010)	PI	2009~2010
Service Mechanisms of Collaboration between Academia and Industry for Product Innovative R&D and Patent Analysis Management	Co-PI	2008~2009

Increase Taiwan IEM Visibility and Prestige in International Community by Participating in Societies' Key Positions, Fellowship, and SCI Journal Editorial Teams (2011~2012)	PI	2011~2012
Using Ontology Engineering to Develop Patent Techniques Clustering and Patent Infringement Analysis	PI	2011~2014
Forecasting Technology Development and Investment Opportunities Using a Multi-path Patent Analysis Approach for Medical Equipment	Co-PI	2011~2013
Modularized GMDH and LG Transformer Lifespan Evaluation Models and Prognostic Maintenance Integration Platform	PI	2012~2015
Dynamic Patent Analysis and Observation Platform Supporting Key Technology Development and Sustainable Energy Policy for Offshore Wind Power	Co-PI	2013
A Method of Combining Patent Analysis with Clinical Trials to Determine Market Development Opportunities for Medical Devices: The Case of Dental Implants	Co-PI	2013~2016
Dynamic IP Monitoring and Analysis of Engineering Research Innovations and the Strategic Promotion of IP Commercialization	PI	2014
Evaluation of Green Energy and Sustainability Development Using a System Dynamics Approach	PI	2014~2017
Dynamic IP Monitoring and Analysis of Engineering Research Innovations and the Strategic Promotion of IP Commercialization (2015~2016)	PI	2015~2016
Cross-evolution E-discovery of Patent Infringement Litigations - Using Multi-level Formal Concept Analysis	PI	2015~2018
Technology Standards and IP E-discovery Platform for Intelligent Machinery and Industry 4.0 Related Innovations	PI	2017~2019
Patent Roadmap Analysis Integrating Business Process and Technology Innovations: E-discovery of Smart Logistic Service Innovations and Competitive Advantages	Co- PI	2017~2018
Using Unsupervised Machine Learning Approach to Develop Intelligent Patent Topic E-discovery	PI	2018~2019
A Trademark Infringement Ontology and Intelligent Case Recommendation System for Brand Protection and Digital Marketing	Co- PI	2018~2019

Methods and System of Multi-featured Trademark Similarity Confusion Analysis Using Deep Learning Capabilities	PI	2019~2022
A Trademark Infringement Case Analysis and Legal Precedence Recommendation System Using Machine Learning Approaches	Co- PI	2019~2021
Intelligent Engineering Document Analysis for Enabling Mass-customization of High-end Transformer Manufacturing (FE)	PI	2019~2020
Immersive Technologies Enabled Intelligent Engineering Consultation Chatbot Design and Development	PI	2021~2024
Intelligent Supply Chain Management Modules Enabling Advanced Manufacturing for Transformer Mass Customization cturing (FE)	PI	2021~2022
Construct Technology Ontology for Telecommunication and Related Industries – Development of Advanced AI Deep Learning Methodologies for Tech-mining (STPI)	PI	2022
Intelligent Internet Content Trademark Protection System Using Deep Transfer Learning and Dynamic Image Localization and Recognition	PI	2022~2025
Product quality prediction system for large-size highly-customized transformer smart manufacturing(FE)	PI	2023~2024
Using deep learning and social network analytic approaches to explore patent portfolio and trends of advanced net-zero carbon reduction technologies for information and communications industry(STPI)	PI	2023
Generative AI approach for automatic patent process flow construction and similarity analysis(STPI)	PI	2024
Intelligent multi-functional customer and maintenance consultation chatbot for EV charging systems(FE)	PI	2024~2025
Use NLP-based text mining and semantic network analysis to explore patent landscape and technological evolution roadmap	PI	2024~2025