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德國慕尼黑工業大學建築系博士研究（專攻：新舊建築環境舒適控制、維護與節能）

學術專長：室內環境舒適控制與節能、古蹟.歷史建築環境監測與預防性維護、建築水資源與水系統
(含衛浴設備)、永續環境建築與室內設計、自給自足智慧健康綠建築(建築新風水)

授課課程：永續環境設計專論、室內健康環境特論、室內健康環境、空調與水電、建築物理環境、材料與工法、室內設計(一~五)、室內專題設計(一~二)、基本設計

經歷一覽：

1. 文化部文化資產局 古蹟歷史建築預防性保存相關計畫 / 古物保存相關計畫 審查委員
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7. 財團法人技專校院入學測驗中心 土木與建築群 顧問團召集人
8. 社團法人台灣評鑑協會 評鑑委員
9. 中華民國德國學術交流協會 榮譽理事長、理事長、秘書長
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11. 台德交流協會 常務理事
12. 中華民國德國文化與經濟協會 理事
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22. 台南市室內裝修商業同業公會 學術顧問
23. 台灣建築中心綠建築指標專業訓練 講座
24. 環境部室內空氣品質專責人員訓練 講座
25. 環境部公共廁所無障礙與性別平等訓練課程 講座
26. 國立台中科技大學室內設計系 副教授 2015-2021
27. 北京交通大學 訪問學者 2018
28. 國立台中科技大學室內設計系 助理教授 2009-2015
29. 外交部第九屆中華民國（台灣）講座 2013
30. 捷克查理士大學 東亞研究所 客座教授 2013
31. 國立台灣科技大學建築系 專案助理教授 2007-2009
32. 國立台中技術學院進修學院室內設計系 兼任助理教授 2008-2009
33. 國立台灣科技大學建築系 兼任助理教授 2006-2007
34. 德國國家應用科技研究院 建築環境研究所 (Fraunhofer-Institut für Bauphysik / IBP) 客座研究員 2005-2006

Energy Conservation & CO₂ reduction

1. Runa T. Hellwig, Despoina Teli, Marcel Schweiker, Joon-Ho Choi, **Meng-Chieh,(Jeffrey) Lee**, Rodrigo Mora, Rajan Rawal, Zhaojun Wang, Farah Al-Atrash, A framework for adopting adaptive thermal comfort principles in design and operation of buildings, *Energy & Buildings* 205 (2019) 109476. (SCI, IF=4.495)
2. **M. C. Jeffery, Lee**, Teow Ngak, Ng, Hsien-Te, Lin, The assessment of carbon footprint in interior decoration and construction in Taiwan, *IOP Conf. Series: Earth and Environmental Science* 294 (2019) 012005, (EI, doi:10.1088/1755-1315/294/1/012005)
3. Yi-Ming, Fang, **M. C. Jeffrey Lee***, Christoph Mitterer, Hartwig.M. Kunzel, The performance of heat pump integrated with chilled water wall for air conditioning and domestic hot water, *IOP Conf. Series: Earth and Environmental Science* 294 (2019) 012032, (EI, doi:10.1088/1755-1315/294/1/012032)
4. **M.C. Lee**, C.H. Kuo, F.J. Wang, Utilizing the building envelope for power generation and conservation, *Energy*, 97, 2016, 1-10 (SCI, IF=4.968)
5. **M.C. Lee**, Reducing CO₂ emission in the individual hot water circulation piping system, *Energy and buildings*, 84, 2014, 475-482 (SCI, IF=4.457)
6. **M.C. Lee**, C.Y. Lai, Improving the individual circulated hot water supply piping system (Aprefeiçaomento de sistemas de abastecimento de água quente), *Revista Hydro*, 87, 8, 2014, 50-53
7. **M.C. Lee**, L.T. Wong, K.W. Mui, W.H. Lam, C.F. Chang, Energy Conservation between Natural Ventilated and Air-conditioned Classroom in Taiwan, *International Journal of Civil & Environmental Engineering IJCEE-IJENS*, 14, 6, 2014, 5-18 (IF=1.303)
8. C.L. Cheng, C.S. Sanchez Jimenez, **M.C. Lee**, Research of BIPV optimal tilted angle use of latitude concept for south orientated plans, *Renewable Energy*, 34, 2009, 1644-1650 (SCI, IF=4.981)

Water supply and Sanitary equipment

9. **M.C. Lee**, R.Z. Wang, B.C. Lin, C.H. Huang, Numerical Analysis and static loading test of equipment fixed on the light-weight partition wall, *Applied Mechanics and Materials*, 2015, 773-777 (EI, ISSN: 1662-7482)
10. M. Okamoto, R. Yaita, M. Sato, M. Kamijo, K. Toyosada, Y. Shimizu, K. Sakaue, W.J. Liao, **M.C. Lee**, C.L. Cheng, Comparison of the Physical Properties of Showers that the Satisfaction of Shower Feeling among Users in Three Asian Countries, *Water* 2015, 7(8), 4161-4174. (SCI, IF=2.069)
11. C.L. Cheng, **M.C. Lee**, Y.H. Lin, Empirical prediction method of transmission heat loss in hot water plumbing, *Energy and Buildings* 38, 2006, 1220-1229 (SCI, IF=4.457)
12. C.L. Cheng, M.C. Law, **M.C. Lee**, A quantitative evaluation method for rainwater use guideline, *Building Service Engineering. Research and Technology*, 27, 3, 2006, 209-218 (SCI, IF=1.100)
13. C.L. Cheng, **M.C. Lee**, Research of Residential Building Hot Water Issues In Subtropical Taiwan, *Journal of Asian Architecture and Building and Environment*, 5(1), 2005(SCI, IF=0.31)

Indoor Environment Quality

14. **M.C. Jeffrey Lee**, K.M. Tham, Public toilets with insufficient ventilation present high cross infection risk, *Scientific Reports*, (2021) 11:20623, <http://doi.org/10.1038/s41598-021-00166-0> (SCI, IF=5.133)

15. Marcel Schweiker, **M.C. Jeffrey Lee**, et al., Evaluating assumptions of scales for subjective assessment of thermal environments –Do laypersons perceive them the way, we researchers believe? Energy & Buildings 211, 2020, 109761(SCI, IF=4.495)
16. **M.C. Jeffrey Lee**, Wu-Chen Shih, Discussion on Indoor Air Quality in Different Space Plan in Dental Clinics, Journal of Architecture, Special Issue on Innovative Low-carbon and Green Building 2, 110 (2019) 33-48, DOI:10.3966/101632122019120110010
17. Marcel Schweiker, **M.C. Jeffrey Lee**, et al., The Scales Project, a cross-national dataset on the interpretation of thermal perception scales, Scientific Data (2019) 6:289 (SCI, IF=5.929)
18. **M.C. Lee**, K.W. Mui, L.T. Wong, E.W.M. Lee, C.T. Cheung, Student learning performance and indoor environmental quality IEQ in air conditioned university teaching rooms, Building and environment, 49, 2012, 238-244 (SCI, IF=4.539)
19. F.J. Wang, **M.C. Lee**, T.B. Chang, Y.S. Chen, R.C. Jung, Improving Indoor Air Quality and Thermal Comfort by Total Heat Exchanger for an Office Building in Hot and Humid Climate, International Journal of HVAC&R Research, 20, 7, 2014, 731-737. (SCI, IF=1.183)
20. F.J. Wang, **M.C. Lee**, T.J. Cheng, Y.Q. Law, Field evaluation of thermal comfort and indoor environment quality for a hospital in hot and humid climate, HVAC & Research Journal, 18:4, 2012, 671-680 (SCI, IF=1.183)
21. L.T. Wong, K.W. Mui, C.T. Cheung, E.W.M. Lee, **M.C. Lee**, Performance impact of indoor environmental policy implementation for airside systems in Hong Kong Grade A offices, Building Services Engineering Research and Technology, 36(5), 2015, 525-534 (SCI, IF=1.100)
22. L.W. Peng, M.J. Sheu, L.Y. Lin, C.T. Wu, H.M. Chiang, W.H. Lin, **M.C. Lee**, H.C. Chen, Effect of heat treatments on the essential oils of kumquat (Fortunella margarita Swingle), Food Chemistry, 136, 2, 2013, 532–537 (SCI, IF=4.946)

Preservation of Heritage Building

23. **M. C. J. Lee**, L. W. Huang, R. Z. Wang, C. J. Lin, Y. L. Tsai, and M. L. Lin, Damage Risk Assessment of Painting on the Wood Construction in Typical Taiwanese Temple by Hot and Humid Climate, Int. Arch. Photogramm. Remote Sens. Spatial Inf. Sci., XLII-2/W15, 653–656, 2019. (EI, <https://doi.org/10.5194/isprs-archives-XLII-2-W15-653-2019>)

Others

24. **M.C. Jeffrey Lee**, Hsiao-Yu Chen, Yi-Ming Fang, Ling-Fang Wang, Chai-Yu Chen, Learning performance of teaching practice of friendly senior care space design, International Journal of Online Pedagogy and Course Design (IJOPCD), 10,4,2020 (Web of Science Emerging Sources Citation Index (ESCI), SCOPUS, INSPEC(EI))
25. L.W. Peng, M.J. Sheu, L.Y. Lin, C.T. Wu, H.M. Chiang, W.H. Lin, **M.C. Lee**, H.C. Chen, Effect of heat treatments on the essential oils of kumquat (Fortunella margarita Swingle), Food Chemistry, 136, 2, 2013, 532–537 (SCI, IF=3.655)
26. 鄭政利、李孟杰，公共集會型建築設備更新之空間分析與定量模擬設計，設計學報，第五卷（第一期） 91-112，2000 (THCI)

研討會論文（外文）

Energy Conservation & CO₂ reduction (節能減碳)

1. **Meng-Chieh, Jeffrey Lee**, Bus stop design with chilled water wall for cooling, dehumidify, and air clean, ICSDII 2023 (2023. 11.15-18, Taichung, Taiwan)
2. **Meng-Chieh Jeffrey Lee**, Smart self-sufficient bus stops with cooling, dehumidify, and air clean via heat

- pump system for reducing the urban island effect, 13th International Symposium on Environmentally Conscious Design and Inverse Manufacturing, EcoDesign 2023 (2023. 11.29-12.1, Nara, Japan)
- 3. **M.C. Jeffery. Lee**, Y. M. Fang, Christoph Mitterer, Hartwig. M. Künzel, The optimum performance evaluation in the chilled water wall in hot and humid area, APCBE 2023 (2023.11.03-04, Kuala Lumpur, Malaysia)
 - 4. **M.C. Jeffery Lee**, Teow Ngak Ng, Hsien-Te Lin, Life cycle assessment in simplified interior construction, IET ICETA 2023 (2023. 10.21-23, Yunlin, Taiwan)
 - 5. **M.C. Jeffrey Lee**, Y. M. Fang, Christoph Mitterer, Hartwig. M. Künzel, Evaluation on Performance of Chilled Water Wall in hot and humid climate, 7th Conference of International Society of Mechatronic Engineering. (2022.04.25-26, Changhua, Taiwan) (**Award of Best Paper**)
 - 6. **M.C. Jeffrey Lee**, Y. M. Fang, Christoph Mitterer, Hartwig. M. Künzel, The performance assessment of heat pump integrated with chilled water wall in different controlled parameters, 45th CIB W062 Symposium (2019.09.08-10, Melbourne, Australia)
 - 7. **M. C. Jeffery, Lee**, Teow Ngak, Ng, Hsien-Te, Lin, The assessment of carbon footprint in interior decoration and construction in Taiwan, Sustainable Built Environment Conference (SBE 2019), (2019.08.06-07, Tokyo, Japan)
 - 8. Yi-Ming, Fang, **M. C. Jeffrey Lee***, Christoph Mitterer, Hartwig.M. Kunzel, The performance of heat pump integrated with chilled water wall for air conditioning and domestic hot water, Sustainable Built Environment Conference (SBE 2019), (2019.08.06-07, Tokyo, Japan) (**Award of Best Poster Paper**)
 - 9. **M. C. Jeffery. Lee**, Christoph Mitterer, Y. M. Feng, Hartwig. M. Künzel, The energy efficiency of heat pump integrated with chilled water wall for air conditioning and domestic hot water, 44th CIB W062 Symposium (2018.08.28-08.30, Ponta Delgada-Azores, Portugal)
 - 10. S.Y. Yang, **M.C. Lee**, C.C. Lee, Less energy consumption and low environmental impacts in novel indoor plant factory, 4th International Conference On Building Energy, Environment (COBEE 2018), (2018.02.05-09, Melbourne, Australia)
 - 11. **M.C. Lee**, Zero Energy Building design with Indoor Environment Quality consideration, Sustainable Renovation Projects in East Asia. (2017.11.10-11, Yokohama, Japan)
 - 12. **M.C. Lee**, Energy saving assessment by domestic hot water supply system, 43rd CIB W062 Symposium (2017.08.23-08.25, Haarlem, Netherland)
 - 13. **M.C. Lee**, C.H. Kuo, C.Y. Lai, Discussion of insulated hybrid wall integrated with temperature difference power generators in the building envelop, 28th Symposium of Research in Architecture Institute of Taiwan (2016.06.04, Taipei, Taiwan)
 - 14. **M.C. Lee**, C.Y. Lai, Conserving energy by improving the individual hot water circulation system, 10th Conference on Sustainable Development of Energy, Water and Environment Systems – SDEWES 2015, (2015.09.27-10.02, Dubrovnik, Croatia)
 - 15. **M.C. Lee**, C.F. Chang, C.Y. Chen, Energy saving via optimized temperature setting in different types of air-conditioned office, The 10th International Green Energy Conference, (2015.05.24-27, Taichung, Taiwan)
 - 16. **M.C. Lee**, L.T. Wong, K.W. Mui, C.F. Chang, W.H. Lam, Energy Conservation between Natural Ventilated and Air-conditioned Classroom in Taiwan, The 13th International Conference on indoor air quality and climate, (2014. 07.07-12, Hong Kong)
 - 17. **M.C. Lee**, C.H. Kuo, F.J. Wang, Energy saving and generating via building envelope with water piping and solar thermal power generator, 1st South East European Conference on Sustainable Development of

Energy, Water and Environment Systems – SEE SDEWES Ohrid 2014, (2014.06.29-07.04, Ohrid, Republic of Macedonia)

18. **M.C. Lee**, C.H. Kuo, The Analysis of Thermal Gain via Different Water Heat Collector Materials Integrated with Building Envelope by Computational Fluid Dynamic, The 12th Asia Pacific Conference on the Building Environment (APCBE), (2013.11.5-6, Manila, Philippines)
19. **M.C. Lee**, C.Y. Lai, Improving the individual circulated hot water supply piping system, 39th International Symposium on Water Supply and Drainage for Buildings (2013.9.18-20, Nagano)
20. **M.C. Lee**, C.Y. Lai, C.N. Hsu, F.J. Wang, The Energy Saving Efficiency of Building Hybrid Wall by Ecotect Analysis Tool, 11th RAC, 2013. 8.24-26, Dalian, China
21. **M.C. Lee**, C.Y. Lai, C.C. Lee, Efficiency of water and energy saving in the individual hot water circulated piping system, 2013 CLIMA Congress, 2013.6.16-19, Prague, Czech Republic
22. **M.C. Lee**, C.C. Lee, C.Y. Lai, W.H. Lam, CO₂ emission reducing in hot water transmission system via an independent hot water circulation system, 2nd International Symposium on Plumbing System in East Asia, (2012.11.3, NTUST, Taipei, Taiwan)
23. **M.C. Lee**, C.Y. Lai, W.H. Lam, Discussion of water saving and energy conservation in hot water transmission pipes, 38th International Symposium on Water Supply and Drainage for Buildings (2012.8.28-30, Edinburg, UK)
24. **M.C. Lee**, C.Y. Lai, C.N. Hsu, F.J. Wang, W.H. Lam, Efficiency Estimation of Temperature Difference Power Generator Integrated with Building Envelop, 2nd Conference on Building Energy and Environment (COBEE 2012), 2012.8.1-4, Boulder, USA
25. **M.C. Lee**, C.Y. Lai, C.N. Hsu, F.J. Wang, Integrated temperature difference power generator with building envelop, The 11th Asia Pacific Conference on the Built Environment (APCBE), (2011.10.20-21, Jakarta, Indonesia)
26. **M.C. Lee**, C.F. Chang, Study of energy conservation between natural and mechanical ventilation in subtropical classroom, The 2nd International Conference on Multimedia Technology, 7(1), 2011, 6036-6040 (IEEE Catalog Number: CFP1153K-PRT, EI)
27. **M.C. Lee**, Power generator integrated with building envelope, 2009 Conference on Green Building Towards Eco-City (2009.10.12-14, Taipei, Taiwan)
28. **M.C. Lee**, Evaluation of solar thermal power generation in buildings., 1st Conference on Building Energy and Environment 2008 Dalian, 07.13-16, 2008, Furama Hotel, China
29. **M.C. Lee**, Integrating water heat collector as the heat insulator with building envelope design., International Conference on Sustainable Building 2007 Taipei, 11.9-11, 2007, Grand Hyatt, Taipei, Taiwan
30. **M.C. Lee**, Dynamic simulate temperature various and flowing water velocity in thermal insulated water bag., Subtropical Green Building International Conference 2007, 10.02-04,2007, NTUST, Taipei, Taiwan
31. **M.C. Lee**, C.L. Cheng, Evaluation at roof heat insulation water bag with flowing water by dynamic computer simulation , 33th International Symposium on Water Supply and Drainage for Buildings (2007.09.19-21, Brno, Czech Republic)
32. **M.C. Lee**, Calculate flowing water rate in heat insulation system by computer dynamic simulation, Hong Kong- Taiwan workshop on building services system, 06.23-26, 2007, Hong-Kong Polytechnic University, China
33. **M.C. Lee**, Research of Solar heater collectors combine with architecture design, Verein der Chinesen (Tawainesen) in Deutschland für Forschung und Lehre(2006.4.8-9, Munich, Germany)

Water supply and Sanitary equipment (供水與衛生設備)

34. **M.C. Jeffrey Lee**, C.Y. Chen, Investigation of domestic water saving devices for using comfort and water capacity, 49th CIB W062 Symposium (2024.08.20-22, Northampton, UK)
35. **M.C. Jeffrey Lee**, The energy-saving efficiency of hot water transmission pipeline between PU-insulated and uninsulated stainless pipes, 48th CIB W062 Symposium (2023.08.29-31, Leuven, Belgium)
36. **M.C. Jeffrey Lee**, Y. M. Fang, Evaluation of energy efficiency of Chilled water wall with heat pump in subtropical climate, 47th CIB W062 Symposium (2022.10.24-26, Taichung, Taiwan)
37. **M.C. Jeffery Lee**, Y.C. Yeu, C.C. Chen, C.Y. Chen, The health risk assessment of the dissolved plasticizer from uPVC water supply pipes, 46th CIB W062 Symposium (2021.10.24, Onine, UK)
38. **M.C. Jeffrey Lee**, Y. J. Yue, C. Y. Chen, Y.C. Lin, Study of the concentration of DEHP plasticizer solving into water by UPVC supply pipes under thermal environment, 45th CIB W062 Symposium (2019.09.08-10, Melbourne, Australia)
39. **M.C. Lee**, C.Y. Lai, Improving the individual circulated hot water supply piping system, 2018 International Conference of Building Water Supply and Drainage Equipment Design Technology and 2nd Water Research Awards (2018.4.10, Kaohsung, Taiwan) (**Best Research Paper Award**)
40. H.T. Tseng, **M.C. Lee**, M. Okamoto, S. Mio, C.L. Cheng, W.J. Liao, Study of the water using efficiency with different water ejection type in the showerheads, 43rd CIB W062 Symposium (2017.08.23-08.25, Haarlem, Netherland)
41. **M.C. Lee**, Energy reducing efficiency by hot water saving in residential building, 3rd International Symposium on Plumbing System in Asia, ISPSA, (2016.11.21, Tokyo, Japan)
42. **M.C. Lee**, C.Y. Chen, M. Okamoto, Komatsu, W.J. Liao, C.L. Cheng, Performance of hair rinsing cleaning by different water flow patterns from shower heads, 42nd CIB W062 Symposium (2016.08.29-09.01, KOŠICE, Slovakia).
43. C.Y. Chen, **M.C. Lee**, Evaluation of water using comfort and cleaning performance by three different water-ejection modes in residential building, 42nd CIB W062 Symposium (2016.08.29-09.01, KOŠICE, Slovakia)
44. **M.C. Lee**, C.Y. Chen, C.L. Cheng, W.J. Liao, K. Nagata, M. Sato, Shower comfort in different water supply pressure conditions in Taiwan, 41st International Symposium on Water Supply and Drainage for Buildings (2015.08.17-20, Beijin, China)
45. **M.C. Lee**, M. Okamoto, R. Yaita, C.L. Cheng, M. Sato, Hot water saving via shower using behavior and water demand in Taiwan, 40th International Symposium on Water Supply and Drainage for Buildings (2014.9.8-10, Sao Paulo, Brazil)
46. **M.C. Lee**, Water saving between you and me, 3rd Asian Saving Water Council Symposium in Hanoi, (2014.02.20, Hanoi, Vietnam)
47. **M.C. Lee**, K.M. Chen, I.B. Sheng, W.H. Lu, M.L. Lin, Problems of Taiwan public toilet along the road, 39th International Symposium on Water Supply and Drainage for Buildings (2013.9.18-20, Nagano, Japan)
48. **M.C. Lee**, R.Z. Wang, C.H. Huang, B.C. Lin, Seismic Numerical Analysis of Building Buried Pipelines, 2nd International Conference of Young Scholars in Seismic Engineering (2012.10.12-16, Harbin, China)
49. **M.C. Lee**, H.C. Chang, Rodney Kanno, L.H. Huang, C.F. Chang, Renovating the exist resource recycling station in residential apartment in Taiwan, 2011 ICDTP, (2011.12.01-02, NTIT, Taichung, Taiwan) . (**Award of the Best paper**)
50. **M.C. Lee**, R.Z. Wang, H.A. Chen, L.Y. Wu, C.J.Pan, Seismic behavior of sanitary equipment installed on light walls, 36th International Symposium on Water Supply and Drainage for Buildings (2010.11.08-10, Sydney, Australia)
51. C.C. Cheng, **M.C. Lee**, C.M. Hsiao, H.C. Chang, S.C. Jan, Reforming of waste recycling station, 2009

- Conference on Green Building Towards Eco-City (2009.10.12-14, Taipei, Taiwan)
52. M.C. Lee, R.Z. Wang, C.L. Cheng, Y.C. Yu, Z.Y. Shih, Study of sanitary equipments installed on light-weight partitions, 35th International Symposium on Water Supply and Drainage for Buildings (2009.9.07-10, Düsseldorf, Germany)
 53. M.C. Lee, C.L. Cheng, Y.H. Lin, Empirical approach to transmit energy for hot water plumbing system, CIB-W62 2005, 31st International Symposium (2005.9.14-16, Brussels, Belgian)
 54. M.C. Lee, C.L. Cheng, Y.H. Lin, Hot Water Plumbing System and Temperature Drop Mechanism in Residential Building in Taiwan, CIB-W62 2004, 30th International Symposium (2004.9.16-17, Paris, France)
 55. C.L. Cheng, M.C. Lee, Rainwater Use Guideline Link to Building Code in Taiwan, CIB-W62 2003, 29th International Symposium (2003.9.11-12, Turkey, Ankara)
 56. M.C. Lee, C.L. Cheng, The Research of Crack Damage in Ceramic Sanitary in Building, International Symposium of Plumbing System in Asia (2001.6.22, Taipei, Taiwan)
- Indoor Environment Quality (室內環境品質)**
57. Chung-Yi Chang, Jenn-Ann Tan, Meng-Chieh Jeffrey Lee, Tain-Junn Cheng, A Study on the Relationship between Indoor Thermal Comfort and the Physical and Psychological Perception of the Elderly, (KEER 2024) , (2024.11.20-23, Taichung, Taiwan)
 58. Wei-Lun Lee, Yi-Tung Lin, Meng-Chieh, Jeffrey Lee, Tain-Junn Cheng , An Initial Investigation of Heart Rate Variability (HRV) Related to Foot Bathing Water Temperature and Vibration Relaxation for the Elderly People, (KEER 2024) , (2024.11.20-23, Taichung, Taiwan)
 59. Yi-Chun Kuo, Shih-Chiao Sun, Meng-Chieh Lee, Tain-Junn Cheng ,Study of the correlation between indoor air quality and brain wave of elder people in an elderly nursing center, (KEER 2024) , (2024.11.20-23, Taichung, Taiwan)
 60. Meng-Chieh, Jeffrey Lee, Wei-Lun Lee, Tain-Jun Cheng, Yi-Tung Lin, Foot bath for the elderly to relax and comfort by HRV assessme, (TSIEQ 2024) , (2024.11.01-03, Taichung, Taiwan)
 61. Meng-Chieh, Jeffrey Lee, Pei-Tsen Shih, Ventilation rate in three types of opening ratio at the domestic kitchen, RoomVent 2024, (2024.04.22-25, Stockholm, Sweden)
 62. M.C. Jeffrey Lee , K.W. Tham, C.Y. Pan and H.T. Tseng, Study of the low moving efficiency of bioaerosol with insufficient air inflow and exhaust in the public toilets, 2023 International Conference on Indoor Air Quality Ventilation & Energy Conservation In Buildings (2023 IAQVEC) (2023.05.20-23, Tokyo, Japan)
 63. M.C. Jeffrey Lee, Health building via Fengshui consideration -smart, epidemic prevention and healthy green building, The 2nd International Conference for Global Chinese Academia on Energy and Built Environment, (2021.07.16-19, Hybrid, Chengdu, China)
 64. M.C. Jeffrey Lee, Hsiao-Ting Tseng, Kwok-Wai Tham, Pei-Tsen Shih, The consideration of AIoT sensors and controllers in the ventilation system to reduce the damp and biological pollutants in the bathroom, Conference on Indoor Environmental Quality Health, Infection Prevention and Intelligent Living in Asia (TSIEQ 2021), (2021.06.03-04, Online, Taiwan)
 65. M.C. Jeffrey Lee, Pei-Tsen Shih,Discussion of the status and the air pollutant sources in Chinese residential kitchen, Conference on Indoor Environmental Quality Health, Infection Prevention and Intelligent Living in Asia (TSIEQ 2021), (2021.06.03-04, Online, Taiwan)
 66. Runa T. Hellwig, Despoina Teli, Marcel Schweiker, Joon-Ho Choi, M.C. Jeffrey Lee, Rodrigo Mora, Rajan Rawal, Zhaojun Wang, Farah Al-Atrash, Guidelines to bridge the gap between adaptive thermal

comfort theory and building design and operation practice , 11th Windsor Conference , (2020, Cumberland Lodge, UK)

67. **Meng-Chieh, Jeffrey Lee**, Hsiao-Ting Tseng, Reducing the microbial problems in the residential bathroom, The 16th Conference of the International Society of Indoor Air Quality & Climate (Indoor Air 2020), (2020.11.1-5, Seoul , Korea)
68. **M.C. Jeffrey Lee**, P.T. Shih, The impacts of pollutants diffusion via different opening size between kitchen and neighbour rooms, The 16th Conference of the International Society of Indoor Air Quality & Climate (Indoor Air 2020), (2020.11.1-5, Seoul , Korea)
69. Despoina Teli, Runa T. Hellwig, Marcel Schweiker, Joon-Ho Choi, **M.C. Jeffrey Lee**, Rodrigo Mora, Rajan Rawal, Zhaojun Wang and Farah Al-Atrash, Teaching the Concept of Adaptive Thermal Comfort in Building Design Education, The 16th Conference of the International Society of Indoor Air Quality & Climate (Indoor Air 2020), (2020.11.1-5, Seoul , Korea)
70. Runa T. Hellwig, Despoina Teli, Marcel Schweiker, Joon-Ho Choi, **M.C. Jeffrey Lee**, Rodrigo Mora, Rajan Rawal, Zhaojun Wang, Farah Al-Atrash, Guidelines to bridge the gap between adaptive thermal comfort theory and building design and operation practice, 11th Windsor Conference, (2020.04.16-19, Cumberland Lodge, UK)
71. **M.C.Jeffrey Lee**, Yi-Ming Fang, Discussion of the assessment of indoor environment quality via chilled water wall, The 15th Asia Pacific Conference on the Built Environment (APCBE), (2019.10.18-19, Kaohsiung, Taiwan)
72. **M.C. Jeffrey Lee**, Hui-Chuan Lin, The relationship with Feng Shui and indoor hygrothermal environment in wooden building, 2018 Conference on Innovative Low-Carbon and Green Buildings in Subtropical Area (2018.10.14-17, Taipei, Taiwan)
73. **M.C. Jeffrey Lee**, Yi-Ming Fang, The assessment of indoor environment quality via chilled water wall, 2018 Conference on Innovative Low-Carbon and Green Buildings in Subtropical Area (2018.10.14-17, Taipei, Taiwan)
74. **Meng-Chieh Jeffrey Lee**, Wu-Chen Shih, Discussion on indoor Air Quality in different space plan in dental clinics, 2018 Conference on Innovative Low-Carbon and Green Buildings in Subtropical Area (2018.10.14-17, Taipei, Taiwan)
75. **M.C. Lee**, H.T. Tseng, H. Aota, A. Ikezawa, Y. Araki, M. Yamamoto, C.L. Cheng, W.J. Liao, Reducing the Bioaerosol impact inner bathroom by air and damp exclusion, 44th CIB W062 Symposium (2018.08.28-08.30, Ponta Delgada-Azores, Portugal)
76. **Meng-Chieh Jeffrey Lee**, Hsiao-Ting Tseng, Discussion of the impacts of damp and exhausting in the bathroom, 15th International Conference on Indoor Air Quality and Climate (2018.07.22-27, PA, USA)
77. **Meng-Chieh Jeffrey Lee**, Wu-Chen Shih, Analysis on indoor air pollution in the dental clinics, 15th International Conference on Indoor Air Quality and Climate (2018.07.22-27, PA, USA)
78. **Meng-Chieh, Jeffrey Lee**, Shu-Yuan Yang, Ching-Ching Lee, Reducing Indoor Environment Quality Impact in Indoor Planting, The 14th Asia Pacific Conference on the Built Environment, (2017.11.18-19, Bali, Indonesia)
79. **Meng-Chieh, Jeffrey Lee**, Shu-Yuan Yang, Ching-Ching Lee, Low impacts of Indoor environment quality by novel indoor plant factory development, Healthy Building Asia 2107 (2017.9.2-5, Taiwan, Tainan)
80. Jeng-Hung Tsai, **Meng-Chieh Lee**, The Difference between Different Building Flats of Residential Indoor Environmental Quality (IEQ), Healthy Building Asia 2107 (2017.9.2-5, Taiwan, Tainan)

81. Christoph Mitterer, **Meng-Chieh, Jeffrey Lee**, Air conditioning with chilled water walls, Healthy Building Asia 2107 (2017.9.2-5, Taiwan, Tainan)
82. F.J. Wang, J.M. Hung, **M.C. Lee**, L.L. Chang, H.H. Yang, Evaluation of Indoor Air Quality and Thermal Comfort for a Senior Nursing Center, 9th International Conference on Indoor Air Quality Ventilation & Energy Conservation In Buildings (2016.10.23-26, Seoul, Korea)
83. **M.C. Lee**, L.H. Huang, H.C. Chen, L.T. Wong, K.W. Mui, Reducing the formaldehyde emission in cooked Chinese medicine with Lycium by different ventilation rate and route, 14th International Conference on Indoor Air Quality and Climate (2016.07.03-08, Gant, Belgium)
84. Kwok-Wai Mui, Ling-Tim Wong, PS Hui, **M.C. Lee**, An Indoor Air Quality Screening Protocol for Air-conditioned Offices, The 11th International Symposium on Building and Urban Environmental Engineering (BUEE), (2013.12.11-13, Taipei, Taiwan)
85. **M.C. Lee**, C.F. Chang, L.T. Wong, K.W. Mui, Study of Optimized Temperature Setting of Air-Conditioned Office in Metropolitans in Subtropical Taiwan, 2013 CLIMA Congress, 2013.6.16-19, Prague, Czech Republic
86. **M.C. Lee**, W.H. Lam, K.W. Mui, L.T. Wong, Relationship between Student Learning Performance and Indoor Environment Quality (IEQ) in High School Classrooms in Subtropical Regions, 2013 CLIMA Congress, 2013.6.16-19, Prague, Czech Republic
87. **M.C. Lee**, H.C. Chen, L.H. Huang, L.T. Wong, K.W. Mui, Study of Indoor Formaldehyde emission diluted by Ventilation, 2013 CLIMA Congress, 2013.6.16-19, Prague, Czech Republic
88. C.C. Lee, **M.C. Lee**, The Influence of a Natural Plant Factory with Indoor Environment Quality (IEQ), 2013 CLIMA Congress, 2013.6.16-19, Prague, Czech Republic.
89. W.H. Lam, **M.C. Lee**, C.F. Chang, L.T. Wong, K.W. Mui, Study of Optimized Temperature Setting in Air-conditioned Office Buildings in Taiwan, 2nd Conference on Building Energy and Environment (COBEE 2012), (2012.8.1-4, Boulder, USA)
90. **M.C. Lee**, K.W. Mui, C.T. Cheung, L.T. Wong, Thermal comfort studies in university classrooms of Hong Kong and Taiwan, Healthy Building 2012, (2012.6.8-12, Brisbane, Australia)
91. **M.C. Lee**, C.F. Chang, L.T. Wong, K.W. Mui, C.C. Lee, Thermal comfort between natural and mechanical ventilation in subtropical classroom, The 11th Asia Pacific Conference on the Built Environment (APCBE), (2011.10.20-21, Jakarta, Indonesia)
92. **M.C. Lee**, H.C. Chen, L.H. Huang, L.T. Wong, K.W. Mui, Study of indoor formaldehyde emission by Lycium, 12th Indoor Air 2011 (2011.06.05-10, Austin, Texas, USA)
93. F.J. Wang, **M.C. Lee**, T.J. Cheng, Y.Q. Law, Field evaluation of thermal comfort and indoor environment quality for a hospital in hot and humid climate, ASHRAE IAQ 2010: Airborne Infection Control - Ventilation, IAQ & Energy, (2010.11.10-12, Kuala Lumpur, Malaysia)
94. **M.C. Lee**, L.T. Wong, K.W. Mui, Use of electronic questionnaire surveys for indoor environment quality assessment in classrooms, 10th Asia Pacific Conference on the Built Environment, Green Energy for Environment, (2009.11.05-06, Kaohsiung, Taiwan)

Preservation of Cultural Heritage (文化資產預防性保存)

95. **M.C. Jeffrey Lee**, Y.L. Tsai, W.Y. Kuo, K.W. Tham, The waterproof and moisture permeability test of onsite coral stone walls covered the lime plaster mixture the hydrophobic materials, The 5th International Conference on Energy Efficiency in Historic Buildings (EEHB 2024), (2024.10.07-08, Singapore, Singapore)
96. **M. C. J. Lee**, Addendum big data of weather monitoring by artificial intelligent nearby the heritage buildings, 2022 Heritage buildings preservation and conservation forum of young scientist between

Beijing and Taiwan. (2022.07.30, Hybrid, Beijing, China)

97. **M. C. J. Lee**, Risk assessment by 3D visual technology for heritage building preservation, 2021 Heritage buildings preservation and conservation forum of young scientist between Beijing and Taiwan. (2021.11.23, Hybrid, Beijing, China)
98. **M. C. J. Lee**, W.Y. Kao, H.T. Tseng, Discussion of micro climate resistance conditions of mortar cover for restoration of heritage building. (2020.10.22, Hybrid, Beijing, China)
99. **M. C. J. Lee**, R.P. Hsu, Damage risk assessment of heritage building by computed fluid dynamic (CFD) simulation, (2020.10.22, Hybrid, Beijing, China)
100. **M. C. J. Lee**, L. W. Huang, R. Z. Wang, C. J. Lin, Y. L. Tsai, and M. L. Lin, Damage Risk Assessment of Painting on the Wood Construction in Typical Taiwanese Temple by Hot and Humid Climate, 27th International CIPA Symposium (2019.09.1-09.05, Avila, Spain)
101. **M.C. Lee**, L.W. Huang, R.Z. Wang, C.J. Lin, Y.L. Tsai, M.L. Lin, Painting damage on wood construction in typical Chinese historic temple by indoor climate various, 8th International Congress on Archaeology, Computer Graphics, Cultural Heritage and Innovation ‘ARQUEOLÓGICA 2.0’. (2016.09.05-07, Valencia, Spain)
102. **M.C. Lee**, R.Z. Wang, Y.L. Tsai, Prediction of historic building structure deformation while seismic by 3D laser scanning and numerical analysis, 4th International Conference of Young Scholars in Seismic Engineering (2015.10.18-20, Taipei, Taiwan)
103. **M.C. Lee**, Y.L. Tsai, M.L. Lin, L.W. Hang, C.Y. Chen, Monitoring Mechanism in Preservation of Monuments in Hot and Wet Climate Area, 25th International CIPA Symposium (2015.08.31-09.04, Taipei, Taiwan). (**Award of the Best poster**)
104. **M.C. Lee**, Y.L. Tsai, R.Z. Wang, M.L. Lin, Finding the displacement of wood structure in heritage building by 3D laser scanner, 25th International CIPA Symposium (2015.08.31-09.04, Taipei, Taiwan)
105. **M.C. Lee**, Y.L. Tsai, M.L. Lin, The Study of Monitoring Methods in Preservation of Monuments and Historical Buildings in Taiwan, 11th Conference of Chinese Institute of Interior and Architectural Design (CIIAD), Environmental · Care – The Introspection and Innovation of Space, (2015.1.17, Taichung, Taiwan)
106. **M.C. Lee**, Y.L. Tsai, R.Z. Wang, Discussion of heritage building structural displacement measured by 3D scanner—wooden structure as an example, 3rd International Conference of Young Scholars in Seismic Engineering (2014.10.20-23, Beijin, China)
107. **M.C. Lee**, M.L. Lin, Discussion of Preservation monitoring impact factors in heritage monuments, The 2013 International Youth Forum and Conference on Cultural Heritage Conservation (2013.09.28-29, Taipei, Taiwan)

研討會論文（中文）

108. 李孟杰、林妙蓮（生），臺灣古蹟、歷史建築預防性監測方法之研究，第十一屆中華空間設計學會學術研討會，2015.01.17，台中科大，台中，台灣
109. 李孟杰、蔡育林、王仁佐，3D掃瞄儀應用於古蹟建築結構變位之探討—以木構造建築為例，第三屆海峽兩岸地震工程青年學者研討會，2014.10.20-23，清華大學，北京，中國
110. 黃亮璇（生）、李孟杰，室內加熱品含揮發性有機物質之通風稀釋研究-以甲醛為例，2014 能源與冷凍空調學術研討會(ERAC)，2014.10.04，台北科大，台北，台灣
111. 李孟杰、林妙蓮（生），古蹟預防性監測影響因子探討，2013 年文化資產保存青年國際論壇研討會，2013.09.28-29，中國科大，台北，台灣
112. 林偉豪（生）、李孟杰、王寧添、梅國威，高中教室環境品質對學習效率之影響—以中台灣為例，2013 綠色科技工程與應用研討會暨綠色能源與冷凍空調學術研討會(GERA)，2013.05.24，

勤益科大，台中，台灣

113. 李孟杰、王仁佐、黃昭勳、林炳昌，建築埋管受震數值模擬分析之研究，2012 第六屆全國防震減災工程學術研討會暨第二屆海峽兩岸地震工程青年學者研討會，2012.08.09-10，哈工大，哈爾濱，中國
114. 林偉豪（生）、李孟杰、張家逢、王寧添、梅國威，台灣地區辦公空間空調溫度最適化探討，2012 綠色科技工程與應用研討會暨綠色能源與冷凍空調學術研討會(GERA)，2012.06.02，勤益科大，台中，台灣
115. 賴忠毅（生）、李孟杰、許智能、王輔仁，建築外殼整合溫差發電效率評估之研究，2012 綠色科技工程與應用研討會暨綠色能源與冷凍空調學術研討會(GERA)，2012.06.02，勤益科大，台中，台灣
116. 張家逢（生）、李孟杰，亞熱帶地區台灣的自然通風與機械通風教室之熱舒適研究，2011 設計理論與實務國際研討會(ICDTP)，2011.12.01-02，中技院，台中，台灣
117. 黃亮璇（生）、李孟杰、陳信君、王寧添、梅國威，藥膳烹煮之甲醛逸散與通風換氣稀釋關係研究，2011 設計理論與實務國際研討會(ICDTP)，2011.12.01-02，中技院，台中，台灣
118. 賴忠毅（生）、李孟杰，建築外殼整合溫差發電設備之研究，2011 設計理論與實務國際研討會 (ICDTP)，2011.12.01-02，中技院，台中，台灣
119. 李清景（生）、李孟杰，居家室內農場之設計，2011 設計理論與實務國際研討會(ICDTP)，2011.12.01-02，中技院，台中，台灣
120. 黃亮璇（生），李孟杰，陳信君，王寧添，梅國威，室內藥膳蒸煮甲醛逸散通風稀釋之研究，2011 年能源與冷凍空調學術研討會 (ERAC Conference)，2011.10.15，勤益科大，台中，台灣
121. 李孟杰、王仁佐、陳筱安，設備物固定於輕隔間之耐震實驗與力學行為之分析，第一屆地震工程海峽兩岸青年學者研討會，2010.10.20-21，台北，台灣
122. 李孟杰、王寧添、梅國威、王輔仁，熱濕氣候環境下的大學教室熱舒適性評估，2010 室內環境與健康研討會，2010.02.20-21，成功大學，台南，台灣
123. 王輔仁、鄭聰榮、李孟杰、劉育佺、劉卿妤，濕熱氣候區域之醫院內人員熱舒適及室內空氣品質現場評估分析，2010 室內環境與健康研討會，2010.02.20-21，台南，台灣
124. 施柔依，王仁佐，李孟杰，林炳昌，衛生器具固定於輕隔間之實驗與數值模擬分析，電子計算機於土木水利工程應用研討會，2009.9.03-04，中華大學，新竹
125. 李孟杰，建築節能與設備節能設計，綠色能資源科技在建築應用研討會，2008.10.03，華夏技術學院，台北，台灣
126. 李孟杰，國內外太陽能整合建築設計之探討，建築物與太陽能熱水系統整合化應用技術研討會，2007.08.24，高雄，台灣
127. 李孟杰，太陽能建築介紹及國內外應用實例分享，建築物與太陽能熱水系統整合化應用技術研討會，2007.06.04，台中，台灣
128. 李孟杰、鄭政利、林晏旬，生活熱水系統耗能量評估之研究，中華建築學會第十七屆論文發表會，2005.06.18
129. 李孟杰、鄭政利、林晏旬，台灣地區熱水配管溫降質能之研究，中華建築學會第十六屆論文發表會，2004.06.06
130. 李孟杰，建築基地雨水貯集法治化之研究，勤益技術學院第一屆管理學術論文研討會，2003.12.20，台中，台灣
131. 李孟杰、鄭政利、林晏旬，住宅建築熱水使用與能源消耗之研究，中華建築學會第十五屆論文發表會，2003.12.06
132. 李孟杰、鄭政利、沈明德，住宅熱水設備系統改良設計之研究—以瞬間型瓦斯熱水器為例，2003 創新設計研討會，2003.4.19，台北，台灣
133. 鄭政利、李孟杰，公共集會型建築設備更新及空間規劃案例研究，中華民國建築學會第十二屆論文發表會，2000.4.16，台北，台灣

發表專書/專文

1. 高齡者足浴放鬆「心」體驗，台灣衛浴文化協會會訊 (69)，2024
2. 居家廚房空氣污染物之有效排除換氣比例，冷凍空調技師期刊* (73)，2024

3. 避難廁所設計之概念，台灣衛浴文化協會會訊 (64)，2023
4. 後疫情時期的養生之道，綠裝修專刊(Green Design) (5)，2022
5. 热泵冷水牆結合公車站以降低都市熱島效應與空氣除塵之設計，冷凍空調技師期刊* (67)，2022
6. M.C Jeffrey Lee, Design of adaptive opportunities for people in buildings, Routledge Handbook of Resilient Thermal Comfort, Chapter 12, Apr. 19, 2022, ISBN: 9781003244929
7. 李孟杰，通風不足的公廁存在高交叉感染風險，台灣衛浴文化協會會訊(59)，2022
8. 李孟杰、施吳珍，牙醫診所的健康設計新思維，中市牙醫(145)，2021
9. 李孟杰，室內防疫新思維，綠裝修防疫專刊(Green Design) (4)，2021
10. 李孟杰、方羿茗，冰瀑牆設計之冷房效益探討，冷凍空調技師期刊* (62)，2021
11. 李孟杰，探索環境氣候對建築的影響，文保·日常貳參事 (Conservation & Conversation 2020) 文化部文化資產局，2020
12. 李孟杰，熱濕環境下熱泵應用於室內冷水牆之舒室與節能效益，冷凍空調&能源科技** (120)**冷凍空調&能源科技 (Journal of Energy & HVAC Engineering)，2020
13. 李孟杰，文化資產所在環境控制與迷思，冷凍空調技師期刊* (57)*冷凍空調技師期刊 (Journal of Refreiferation and Air Conditioning Professional Engineer)，2020
14. 李孟杰、施吳珍，牙醫診所空氣品質的隱憂與對策，中華牙醫學會訊(255)，2019
15. 李孟杰，換氣了嗎？空調設備的隱憂，和泰智庫 (40)，2019
16. 李孟杰，零耗能建築的舒適環境考量，冷凍空調技師期刊* (54)*冷凍空調技師期刊 (Journal of Refreiferation and Air Conditioning Professional Engineer)，2019
17. M.C. Lee, C.Y. Lai, Improving the individual circulated hot water supply piping system (Aprefeiçaomento de sistemas de abastecimento de água quente), Revista Hydro, 87, 8, 2014, 50-53
18. 李孟杰，黃亮璇、陳信君，室內蒸煮含添加劑食品造成醛類溢散之通風稀釋探討，社團法人台灣室內環境品質學會專家專欄，第 22 期，2012
19. 李孟杰，衛生器具固定於輕隔間可行性之探討，台灣衛浴文化協會會訊，第 13 期，2009，台北市
20. 李孟杰，太陽能熱水系統整合建築設計，「工程」雙月刊-綠色建築專輯，81(2)，中國工程師學會，2008.04，台北市
21. 李孟杰，日本給排水設備近況探討，台灣衛浴文化協會會訊，第 11 期，2008，台北市
22. 李孟杰、鄭政利，建築基地雨水貯集系統設計之研究，技師月刊， 2004 ，第三十四期， P95-104
23. 鄭政利， 李孟杰 ，衛浴空間陶瓷衛生設備器具龜裂破壞因素之探討，科技學刊，2003 ，第十二卷，第四期， P.245 - P.255
24. 林良哲、李孟杰，2003，台中公園百年風華，台中市文化局，台中市

產學合作計畫(擔任計畫主持人)

1. Analysis of Building Cases Carbon Footprint and Water Footprint Smart Assessment in Kaohsiung Resilient City Decision-making Platform, National Applied Research Laboratories, Taiwan, 2024.06-2024.11
2. Service project for friendly environment improvement in cultural assets park, Ministry of Culture, Taiwan. 2023.01-2023.08.
3. Development of 3D Visual Risk Management System for National Cultural Heritage Building—3rd year, Ministry of Culture, Taiwan. 2022.4-2022.12
4. Energy-saving analysis project for thermal and sound insulation pipe, Yek-Hwa Handwae Co., Ltd. (Benex Taiwan Co., Ltd.), Tanwan. 2021.9-2022.2
5. Environmental monitoring data verification for the preservation of cultural heritage buiding and site— 2nd year, Ministry of Culture, Taiwan. 2021.5-2021.12
6. Development of 3D Visual Risk Management System for National Cultural Heritage Building—2nd year, Ministry of Culture, Taiwan. 2021.4-2021.12

7. Development of 3D Visual Risk Management System for National Cultural Heritage Building—1st year, Ministry of Culture, Taiwan. 2020.3-2020.12
8. Environmental monitoring data verification for the preservation of cultural heritage building and site—1st year, Ministry of Culture, Taiwan. 2020.3-2020.12
9. Discussion on microclimate bearing conditions of ash crop material for heritage building restoration, Ministry of Culture, Taiwan. 2019.3-2019.12
10. 教學實踐研究計畫：友善空間及健康長照環境設計教學實踐 / Teaching practice of friendly elderly space and health nursing care environmental design, Ministry of Education, 2018.8-2019.7
11. 中小企業即時技術輔導計畫：居家室內蔬菜土耕栽種櫥櫃開發 / Instant technical counseling program for small and medium-sized enterprises: Development of interior vegetable cultivation cabinets in residential building, Ministry of Economic Affairs, 2018.06-2018.11
12. 古蹟修復灰作材料防水透濕性能探討 / Discussion on waterproof and moisture permeable properties of heritage buildings, Bureau of Cultural Heritage, Ministry of Culture, Taiwan. 2018.3-2018.12
13. 台灣衛浴空間環境之衛生性研究 / Study of sanitary in the bathroom environment in Taiwan, TOTO Co. Ltd. Japan, 2018.02-2019.1
14. 教學創新先導計畫--設計實務與個案參訪(友善高齡空間及健康長照環境設),教育部,2017.03-2018.03 ,
15. 台灣淋浴設備之淋浴沖洗評價及浴室設備之浴室内環境調查之研究 / Evaluation of wash clean performance in water saving shower equipment and the shower room environment investigation in Taiwan, TOTO Co. Ltd. Japan, 2017.02-2018.1
16. 灰作仿生材料防水透濕性能探討之研究 / Study of moisture moving in cement mortar with biomaterial (Lotos), 2017.01-2017.06
17. 宗教壁畫所處環境監控技術差異比較-以敦煌莫高窟與北港朝天宮為例 / Certification of painting damages monitoring mechanism in heritage buildings in different climate conditions—Cases study in Mogao Cave, China and Chao-Tian Temple, Taiwan, 2016
18. 古蹟、歷史建築保存監測體系建置先期規劃研究 / First Stage of Planning of Preservation Monitoring of Historic Monuments, Institute of Cultural Heritage Preservation Research, Bureau of Cultural Heritage, Ministry of Culture, Taiwan, 2013.02-2015.12
19. 台灣淋浴設備之淋浴沖洗現況調查及省水規格之研究 / Study of wash clean performance in shower equipment water saving and investigation in Taiwan, TOTO Co. Ltd. Japan, 2015.10-2016.9
20. 台灣淋浴設備之省水規格及現況調查研究 / Study of shower equipment water saving and investigation in Taiwan, TOTO Co. Ltd. Japan, 2014.10-2015.9
21. 台灣淋浴設備之省水規格制定研究 / Study of water saving regulation in shower equipment in Taiwan, TOTO Co. Ltd. Japan, 2013.10-2014.9
22. 室內空氣品質改善計畫之改善前後評估量測 / Indoor air quality improvement in Basement space, C.H. HVAC Co. Ltd., 2013.10-2014.02
23. 智慧型熱水系統效益評估與設計改善計畫 / Energy conservation and water saving in hot water circulation system development research, Dong-Liang Ltd. Co. Taiwan. (2012.10-2013.09)
24. 學界協助中小企業科技關懷計畫，家用有機廚餘分解機整合廚房系統廚櫃之可行性探討，合作單位：義世代國際名品國際有限公司，補助單位：經濟部，2011.07-2011.12
25. 衛生器具固定於輕隔間之構法研究 / Safety research of sanitary equipment installation via static loading and seismic conditions, HCG Ltd. Co. Taiwan. (2008.06-2009.05)

26. 台南市居住型建築資源回收站設置規範修訂計畫，臺南市環境保護局，2010.05-2010.08
27. 台南市社區資源垃圾回收站形象改造計畫，臺南市環境保護局，2008.10-2008.12

科技部計畫(擔任計畫主持人)

1. Research on the perception relationship of the elderly people between indoor thermal comfort and indoor air quality with EEG and EKG, National Science and Technology Council (NSTC), 2023.08-2025.07 (NSTC 112-2221-E-025 -003 -MY2)
2. Evaluation of the IoT performance in dehumidify and anti-bacteria in bathroom, Ministry of Science and Technology (MOST), 2019.8-2023.2 (MOST 109-2221-E-025-001-)
3. Study of the IoT system control with the damp and bacteria in the residential bathroom, Ministry of Science and Technology (MOST), 2019.8-2020.7 (MOST 108-2221-E-025-001-)
4. 醫療診所室內空氣品質改善對策與設計通則之研究—以牙醫診所為例 / Study on the Strategy and Design Principles of Indoor Air Quality problems in Medical Clinic - A Case Study of Dental Clinic, Ministry of Science and Technology (MOST), 2018.8-2019.7 (MOST 107-2221-E-025-002-)
5. 應用室內通風路徑設計有效排除室內烹飪污染有害物質 / Application of indoor ventilation route design to effectively eliminate harmful substances while indoor cooking, Ministry of Science and Technology (MOST), 2017.8-2018.7 (MOST 106-2221-E-025-005-)
6. 建築熱水使用行為與設備改善之CO₂減排效益評估 / CO₂ emission reduction benefit assessment in hot water using behavior and equipment improving, Ministry of Science and Technology, 2015.8-2016.7 (MOST 104-2221-E-025-012-)
7. 建築熱水系統CO₂減排之改善效益評估 / CO₂ emissions reduction benefit assessment in improving hot water supply system, Ministry of Science and Technology (MOST), 2014.8-2015.7 (MOST 103-2221-E-025-005-)
8. 組立複層隔熱發電外牆改善室內環境品質之能源效益 / Energy efficiency of hybrid insulated wall installation improving the indoor environment quality, National Science Council (NSC), 2013.8-2014.7 (NSC 102-2221-E-025 -012 -)
9. 應用建築複層外牆隔熱發電創能與室內熱舒適性效益探討 / Study of insulated hybrid wall integrated with temperature difference power generators and involved with indoor thermal comfort, National Science Council (NSC), 2012.8-2013.7 (NSC 101-2221-E-025 -016)
10. 辦公空間溫控調節最適化研究/ Study of optimization thermal comfort control in office space, National Science Council (NSC), 2011.8-2012.7 (NSC 100-2221-E-025 -012)
11. 亞熱帶熱濕氣候區低密度住宅導入尖端熱環境控制技術之研究—以台科一號開放性實驗屋為例—子計畫三：地源於低密度住宅之應用—以台科一號開放性實驗屋為例 / Application of earth cooling system in low density house -- the experimental open house NTUST-1, 2009.8-2010.7 (NSC 98-2221-E-025 -010)
12. 開放式主被動複合熱環境控制實驗與實驗系統建置—子計畫二：地中管系統於開放性實體建築熱環境控制之應用 / Application of underground pipe system in open building thermal environment control., National Science Council, 2008.8-2009.7 (NSC 97-2221-E-011-119)

專利

Innovations

1. M.C. Lee, Smart synchronous ventilation and sterilizing fan device (智慧同步換氣殺菌扇裝置), ROC I843002, NTCUST, 2024.05-2041.06
2. M.C. Lee, Hartwig Künzel, Christoph Mitterer, Water-flow cooling and heating air-conditioning system

with clean air function (具空氣清淨之水流式冷暖空調系統), ROC I798566, NTCUST, 2023.04-2040.07

3. M.C. Lee, S.Y. Yang, C.T. Lee, Smart food conveying and cooking system (智慧型食材輸送及烹飪系統), ROC I656861 , NTCUST, 2019.04-2038.04
4. M.C. Lee, H.R. Li, Y.H. Chang, Portable decoration and furniture (組合屋之功能性內裝結構), ROC I 577865, NTCUST, 2017.04-2032.12
5. M.C. Lee, Moveable PortBall (移動式球形活動屋), ROC I 522518, NTCUST, 2016.02-2034.12
6. M.C. Lee, C.F. Chang, C.C. Lee, L.H. Huang, Indoor plant cultivation integrated with system cabinets (室內植物栽培裝置及其系統櫥櫃), ROC I 494055, NTCUST, 2015.08-2032.06
7. M.C. Lee, W.H. Lam, C.Y. Lai, Energy saving and sustainable temporary toilet (節能環保流動衛生間), ROC I 503467, NTCUST, 2015.10-2033.09
8. M.C. Lee, Building envelop module via Solar heating and power generating (利用太陽能加熱及發電之外殼模組), ROC I 340227, NTUST, 2011.04-2028.08
9. Jeffrey Lee, Solar energy based water heating and power generating module, US 8,001,785 B2, Jeffrey Lee, 2009.01-2029.01

New Models

10. M.C. Lee, Monitory device in Cultural Heritage preservation (文化資產之環境檢測裝置), ROC M 634762, NTCUST, 2022.07-2031.12
11. M.C. Lee, Monitory device in Cultural Heritage preservation (文保健康監測設施), China, ZL 2020 2 1361268.5, NTCUST, 2021.04-2030.07
12. M.C. Lee, C.F. Chang, C.C. Lee, L.H. Huang, Bee house formed sustainable toilet (蜂巢式共生廁所), ROC M 452192, NTCUST, 2013.05-2022.12
13. M.C. Lee, W.H. Lam, C.Y. Lai, Movable toilet module with light airbag (具輕量氣囊壁之模組化流動衛生間), ROC M 437352, NTCUST, 2012.09-2022.05
14. M.C. Lee, C.L. Cheng, Solar heat collector integrated with parterre in balcony (整合於陽台之花台之太陽能集熱結構), ROC M 416747, NTUST, 2011.11-2018.03
15. M.C. Lee, Series hydro generators integrated with building plumbing system (建築配水系統串接發電模組), ROC M 364094, NTUST, 2009.09-2019.04
16. C.L. Cheng, M.C. Lee, Solar heating and rain harvest storage system integrated with roof (屋頂太陽能集熱加溫暨雨水收集儲水設備), ROC M 318711, NTUST, 2007.09-2017.09
17. C.L. Cheng, M.C. Lee, Urine test urinal (尿液檢測型小便斗), ROC M 316284, NTUST, 2007.08-2017.08
18. C.L. Cheng, M.C. Lee, Integrated with light guiding and heat collecting sunshade (導光集熱遮陽板), ROC 288314, NTUST, 2006.02-2016.02

*ROC (Republic of China, Taiwan)

大會講者(Keynote Speaker) :

2019 受邀至韓國國立首爾科技大學擔任大會講者，講述「智慧建築的設計與挑戰」

2018 受邀至北京建築大學擔任大會演講者，講述「古蹟預防性保存機制」

2017 受邀至日本關東學院大學擔任大會演講者，講述「零耗能建築設計與室內舒適環境考量」

學術會議主持與受邀演講

1. 李孟杰 (受邀主持與談)，氣候變遷衝擊文化資產座談，2014.12.25，文化部文化資產局，台中市
2. 李孟杰，室內空氣品質常見之污染與改善方法，2014.11.04、11，南投縣環境保護局

3. 李孟杰，室內健康環境設計，2014.10.18，嘉南藥理大學，台南市
4. 李孟杰，室內環境的健康與舒適設計，中港台設計匯專題講座，2014.9.20，派意館，深圳市，中國
5. 李孟杰，文化資產氣候地圖與監測系統的建置，氣候風險地圖研習會，2014.08.22（南部場—成功大學）、08.25（北部場—台灣博物館）、09.01（中部場—振興戲院）
6. 李孟杰，室內空氣品質常見之污染與改善方法，2014.06.24，雲林縣環境保護局
7. 李孟杰，Water saving between you and me，擔任 3rd Asian Saving Water Council Symposium in Hanoi（第三屆亞洲節水會議）Keynote Speaker，2014.02.20，河內，越南
8. 李孟杰，室內空氣品質改善策略，2013.11.07，Mapua Institute of Technology，馬尼拉，菲律賓
9. 李孟杰，室內空氣品質制度推行策略，2013.07.23，台中市環境保護局，台中市
10. 李孟杰，水當用則用當省則省，營建署工作會報專家講座，2013.04.01，內政部營建署，台北市
11. 李孟杰，打造一個健康醫院好環境，2013.03.05，署立臺南醫院，臺南市
12. 李孟杰，室內空氣品質自主管理制度，臺南市環境保護局室內空氣品質改善說明會，2013.01.05，臺南市環境保護局，臺南市
13. 李孟杰，打造一個健康好環境，台中市室內裝修同業公會學術講座，2012.12.19，台中市室內裝修同業公會，台中市
14. 李孟杰（受邀與談），台灣文化資產氣候風險地圖建置計畫成果發表會，2012.11.28，文化部，台北市
15. 李孟杰（受邀與談），台中文創生活街區尬創意活動，2012.11.17，文化局草悟道，台中市
16. 李孟杰，空間設計色香味，信義學堂，2012.11.14，逢甲大學，台中市
17. 李孟杰，室內空氣品質自主管理制度說明與自主管理計畫書撰寫，10 年度雲林縣環境保護局室內空氣品質改善說明會，2012.07.24，雲林縣環境保護局，雲林縣
18. 李孟杰，衛浴環境健康設計，優良衛浴論壇，2011.12.23，臺中科大，台中市
19. 李孟杰，建築衛生設備受地震影響之安全性分析，上海同濟大學建築系，2011.11.03，上海同濟大學，中國
20. 李孟杰（受邀與談），2011 設備論壇，2011.09.19，台科大，台北市
21. 李孟杰，室內空氣品質自主管理制度說明與自主管理計畫書撰寫，100 年度雲林縣環境保護局室內空氣品質改善說明會，2011.07.06，雲林縣環境保護局，雲林縣
22. 李孟杰，室內健康與環境舒適，萊茵黃金有限公司產品發表會，2011.6.30，漢神巨蛋，高雄市
23. 李孟杰，水資源永續利用與發展，99 年度國家公園公共設施節能減碳輔導團教育訓練，2010.10.15，台科大，台北市
24. 李孟杰（受邀與談），2010 設備論壇，2010.08.25，台科大，台北市
25. 李孟杰，從上海世博看建築發展趨勢，台灣省政府 99 年度非政府組織節能減碳研習，2010.10.05，中興新村，南投市
26. 李孟杰，衛生器具安裝於輕隔間之安全評估，2009 設備論壇，2009.12.12，台科大，台北市
27. 李孟杰，日本給排水設備近況探討，2008 設備論壇，2008.12.08，台科大，台北市
28. 李孟杰（受邀與談），パネルディスカッション，東アジア諸国における超高層住宅の給排水設備設計法の比較，東アジア給排水シンポジウム，2008.11.13-14，東京瓦斯本部，東京，日本
29. 李孟杰，以居住環境與社區之節能改造為例，教你如何節省電費，府城 1020 減碳專案-惜用資源顧地球專題講座二場，2008.10.31-11.01，臺南市勞工育樂中心二樓第三會議室，臺南市
30. 李孟杰，公廁文化與空間設計，2008.07.23，臺南市環保局大會議室，臺南市
31. 李孟杰，建築節能與設備節能設計，綠色能資源科技在建築應用研討會，2008.10.03，華夏技術學院，台北市
32. 李孟杰，國內外太陽能整合建築設計之探討，建築物與太陽能熱水系統整合化應用技術研討會—南區，2007.08.24，寶成企業大樓，高雄市
33. 李孟杰，太陽能建築介紹及國內外應用實例分享，建築物與太陽能熱水系統整合化應用技術研討會—中區，06.04.2007，經濟部中區聯合服務中心

榮譽獎勵

榮譽：

- 2024 日台交流協會 研究獎助金得主
2023 德台友誼獎章 German-Taiwan Friendship Medal (Freundschafts Medaille)
2021、2020、2019、2018 科技部補助大專院校研究獎勵
2022、2019、2014 國立臺中科技大學 教學績優教師 (109 學年度教學傑出教師)
2018、2017、2013 國立臺中科技大學 特優訪視導師、績優導師
2017 International Inventor Award (國際傑出發明家學術國光獎章)
2016 33rd Who's Who in the World (列入第 33 屆世界名人錄)
2014 TUM Research Alumni Gallery (列入慕尼黑工業大學研究校友名人錄)
2005-2006 德國學術交流獎學金得主(DAAD)

獲獎：

學術部分：

- 2022 台灣機電工程國際學會 第七屆學術研討會 最佳學術論文獎
2019 SBE TOKYO 最佳海報論文獎，
2018 2nd Water Research Awards (水研獎) 最佳學術論文獎
2015 聯合國教科文組織下 CIPA 國際研討會之最佳海報論文獎

創新設計部分：

- 2022 121th 巴黎國際發明展暨發明競賽 金牌獎
2021 12th IIIC 國際創新發明競賽 銀牌獎
2020 11th IIIC 國際創新發明競賽 金牌獎 / 34th 日本東京創新天才國際發明展 銀牌獎
2019、2018 9th、10th IIIC 國際創新發明競賽 銀牌獎 / 台灣國際創新發明競賽 銅牌獎
2016、2015、2013 台北國際發明獎分別獲得金牌獎、銀牌獎、銅牌獎 (共四項)
2015、2014 教育部崢嶸計畫優選
2013 台灣衛文獎第三屆金獎，驛馬山野
2012 創新設計作品受邀參與教育部技職校院成果記者會
2011 台灣衛文獎第一屆金獎(Wish Lanterns)、銀獎(水、植、生—環境共生災後廁所)、佳作
2010 作品獲頒建築金質獎節能類組

指導學生獲獎

1. 2024 2024 淨零建築大專組卓越獎
2. 2023 室內設計大專院校四校聯合評圖 銅獎
3. 2022 室內設計大專院校四校聯合評圖 金獎
4. 2021 15th 大學院校室內/空間設計競圖大賽 設計大獎(茶庵餘香)、銅獎三項(曲山之隔、疫於軟性介面的構築、無名山所)
5. 2020 10th 華人金創獎 學生設計類 金獎(走進日・間)
6. 2020 13th 「創意狂想 巢向未來」智慧化居住空間創意競賽，創意狂想組入選
7. 2019 包浩斯(Bauhaus)百年設計論壇暨實作工作坊，Traveler 設計金獎
8. 2019 新一代設計展空間設計類最佳設計獎入圍三項 (翻轉天際線—以海綿城市的方式營造優質社會住宅、填空日常生活的住宅、NE.SENSE 工作室)
9. 2018 7th 全國室內設計/空間設計系聯合畢業展得獎：華麗變身
10. 2015 「創新、創業、商品化—崢嶸棟樑」競賽入圍，室內栽種
11. 2014 教育部補助大專畢業生創業服務計畫 (U-Start)，iGrEAT 團隊
12. 2014 「創新、創業、商品化—崢嶸棟樑」競賽入圍，荒漠之菱
13. 2014 第七屆峯禾盃計競圖佳作，有愛 X 無礙

- 14.2014 新一代設計展空間設計類銅獎，徑-人生的折線
- 15.2013 台灣綠色商品展示空間創意設計優勝，辦公空間組 Foldable Space
- 16.2013 台灣綠色商品展示空間創意設計優勝，零售展示空間組 Future Greens Life
- 17.2012 愛台中創意獎學金比賽，發明展組銀獎，Wish Lanterns
- 18.2012 台中市街區尬創意，獲選並展出，Green EAT
- 19.2012 第二屆衛文設計競圖優選，等待著旅行者
- 20.2012 中華民國第三屆廚具創意設計《美廚獎》第二名
- 21.2011 第一屆衛文設計競圖佳作，荒漠之菱
- 22.2011 經濟部技術處搶先大賽優秀作品，沃壤蔬活
- 23.2011 新一代設計展空間設計類銀獎，梅花落
- 24.2010 青春設計節空間設計類銀獎，藝響 9m2
- 25.2010 青春設計節空間設計類優選，Salounge Bookstore
- 26.2010 滄浪設計節「貝特盃」兩岸大學生室內設計大賽銀獎，稻香居
- 27.2010 滄浪設計節「貝特盃」兩岸大學生室內設計大賽入圍，香草天空