River Huang

Personal Data

Phone: +41 76 798 65 88
email: river.huang@psi.ch

Experience

2023 - Now Scientist, **Paul Scherrer Institut**, Villigen, Switzerland

2023 - Now Researcher, **Vrije Universiteit Brussel**, Brussels, Belgium

2024, Sep. Visiting researcher, **University of Catania**, Catania, Italy

2023, Apr. Visiting researcher, **University of Duisburg-Essen**, Duisburg, Germany

2022 - 2023 Postdoctoral researcher, **Vrije Universiteit Brussel**, Brussels, Belgium

2021 - Now Editor, **EURO Working Group on MCDA (EWG-MCDA)**

2021 - Now Editor, **International Society on Multiple Criteria Decision Making (MCDM)**

Publications

1. H. Huang, N. Brusselaers, Y. De Smet, C. Macharis, Engaging stakeholders in construction transport policy: A mass-participation framework, Case Studies on Transport Policy 19 (2025) 101359. doi:https://doi.org/10.1016/j.cstp.2024.101359
2. H. Huang, S. Heuninckx, C. Macharis, 20 years review of the multi actor multi criteria analysis (mamca) framework: a proposition of a systematic guideline, Annals of Operations Research (2024) 1–36doi:10.1007/s10479-024-06357-y
3. H. Huang, X. Zhang, S. Corrente, S. Siraj, M. Kiba-Janiak, Facilitating Sustainable Logistics Policy Development Using Multicriteria Satisfaction Analysis: A Case of Preference Mapping for Cargo Bike Last-Mile Delivery, Springer Nature Switzerland, Cham, 2024, pp. 129–144. doi:10.1007/978-3-031-67936-0_10
4. H. Huang, S. Sun, K. Mommens, C. Macharis, The mamcabm framework for the evaluation of mobility decision-making problems: theory and practice, International Transactions in Operational Research (2024). doi:10.1111/itor.13544
5. H. Huang, P. Burgherr, C. Macharis, A collaborative group decision-support system: the survey based multi-actor multi-criteria analysis (mamca) software, Journal of the Operational Research Society (2024) 1–22doi:10.1080/01605682.2024.2398114
6. H. Huang, S. Siraj, Quantifying and reducing the complexity of multi-line charts as a visual aid in multi-criteria decision-making, Annals of Operations Research (2024) 1–25doi:10.1007/s10479-024-06090-6
7. H. Huang, P. Burgherr, Mcda calculator: A streamlined decision support system for multi-criteria decision analysis, in: International Conference on Decision Support System Technology, Springer, 2024, pp. 31–45. doi:10.1007/978-3-031-59376-5_3
8. H. Huang, Robust stakeholder-based group-decision making framework: The multi-actor multi-criteria analysis (mamca) with the integration of best-worst method (bwm), in: J. Rezaei, M. Brunelli, M. Mohammadi (Eds.), Advances in Best-Worst Method, Springer Nature Switzerland, Cham, 2023, pp. 15–31. doi:10.1007/978-3-031-40328-6_2

9. H. Huang, S. Sun, L. Liu, K. Mommens, C. Macharis, Mamcabm: A data-driven stakeholder-based decision-support system that considers uncertainties, in: Decision Support Systems XIII. Decision Support Systems in An Uncertain World: The Contribution of Digital Twins: 9th International Conference on Decision Support System Technology, ICDSST 2023, Albi, France, May 30–June 1, 2023, Proceedings, Springer, 2023, pp. 80–96. doi:10.1007/978-3-031-32534-2_7

10. H. Huang, R. Canoy, N. Brusselaers, G. Te Boveldt, Criteria preprocessing in multi-actor multi-criteria analysis, Journal of Multi-Criteria Decision Analysis (2023). doi:10.1002/mcda.1804

11. N. Brusselaers, H. Huang, C. Macharis, K. Mommens, A gps-based approach to measure the environmental impact of construction-related hgv traffic on city level, Environmental Impact Assessment Review 98 (2023) 106955. doi:10.1016/j.eiar.2022.106955

12. H. Huang, K. Mommens, P. Lebeau, C. Macharis, The multi-actor multi-criteria analysis (mamca) for mass-participation decision making, in: Decision Support Systems XI: Decision Support Systems, Analytics and Technologies in Response to Global Crisis Management: 7th International Conference on Decision Support System Technology, ICDSST 2021, Loughborough, UK, May 26–28, 2021, Proceedings, Springer, 2021, pp. 3–17. doi:10.1007/978-3-030-73976-8_1

13. H. Huang, Y. De Smet, C. Macharis, N. A. V. Doan, Collaborative decision-making in sustainable mobility: identifying possible consensuses in the multi-actor multi-criteria analysis based on inverse mixed-integer linear optimization, International Journal of Sustainable Development & World Ecology 28 (1) (2021) 64–74. doi:doi.org/10.1080/13504509.2020.1795005

14. H. Huang, P. Lebeau, C. Macharis, The multi-actor multi-criteria analysis (mamca): new software and new visualizations, in: Decision Support Systems X: Cognitive Decision Support Systems and Technologies: 6th International Conference on Decision Support System Technology, ICDSST 2020, Zaragoza, Spain, May 27–29, 2020, Proceedings 6, Springer, 2020, pp. 43–56. doi:10.1007/978-3-030-46224-6_4

15. S. Hadavi, H. B. Rai, S. Verlinde, H. Huang, C. Macharis, T. Guns, Analyzing passenger and freight vehicle movements from automatic-number plate recognition camera data, European Transport Research Review 12 (1) (2020) 1–17. doi:10.1186/s12544-020-00405-x

Software development

2023 -2024	Webapp Development at Paul Scherrer Institut *D*esign and develop the **MCDA Calculator**
2018 -2020	Webapp Development at Vrije Universiteit Brussel *D*esign and develop the new **MAMCA** software

Education

2018 -2022	PhD in Human Science, **Vrije Universiteit Brussel**, Brussels, Belgium Major: Applied Economics Title of the PhD research: "Stakeholder involvement: a Participatory tool"
2017 -2018	Master of Science in Electronics and ICT, **KU LEUVEN**, Leuven, Belgium Major: Internet Computing
2015 -2017	Bachelor of Science in Engineering, **KU LEUVEN**, Leuven, Belgium Major: Electronics Engineering
2013 -2017	Bachelor of Science in **Southwest of Jiaotong University**, Sichuan, China Major: Vehicle Engineering