Appendix A

PUBLICATION LIST

This appendix presents the full list of publications arising from the research conducted during this thesis. These publications reflect the core contributions of the work, with seven papers published in leading Q1 journals with high impact metrics. Detailed citation information, including journal names, DOIs, and impact metrics, is provided below.

The publications are grouped according to their relevance to the corresponding chapters of this thesis, for organisational clarity.

Publications Related to Chapter 2:

1. "Path planning algorithms in the autonomous driving system: A comprehensive review." *Robotics and Autonomous Systems*, vol. 174, pp. 104630, 2024. DOI: 10.1016/j.robot.2024.104630. **Impact Factor: 5.2, Cite Score: 9.9.**

Publications Related to Chapter 3:

2. "Optimizing the Steering of Driverless Personal Mobility Pods with a Novel Differential Harris Hawks optimization Algorithm (DHHO) and Encoder Modeling." *Sensors* , vol. 24(14), pp. 4650, 2024. DOI: 10.3390/s24144650. **Impact Factor: 3.5, Cite Score: 8.2.**

3. "Motor speed control of four-wheel differential drive robots using a new hybrid moth-flame particle swarm optimization (MFPSO) algorithm." *Journal of Intelligent & Robotic Systems.*, Vol. 111(31). 2025. DOI: 10.1007/s10846-025-02228-1. **Impact Factor: 3.2, Cite Score: 7.4.**

Publications Related to Chapters 4 and 5:

4. "A Novel Reinforcement Learning-Based Multi-Operator Differential Evolution with Cubic Spline for the Path Planning Problem." *Artificial Intelligence Review.*, Vol. 58(142). 2025. DOI: 10.1007/s10462-025-11129-6. **Impact Factor: 14.9, Cite Score: 26.3.**

5. "DA2MODE: Dynamic Archive with Adaptive Multi-Operator Differential Evolution for Numerical Optimization." *Swarm and Evolutionary Computations*, Vol. 99. 2025. DOI: 10.1016/j.swevo.2025.102130. **Impact Factor: 8.5, Cite Score: 15.0**

6. "DXMODE: A Dynamic eXplorative Multi-Operator Differential Evolution Algorithm for Engineering optimisation Problems." *Information Sciences*, Vol. 717. 2025. DOI: 10.1016/j.ins.2025.122271. **Impact Factor: 6.8, Cite Score: 14.4.**

7. "ROS-Based Autonomous Driving System with Enhanced Path Planning Node Validated in Chicane Scenarios." *Actuators*, Vol. 14(8). 2025. DOI: 10.3390/act14080375. **Impact Factor: 2.4, Cite Score: 4.3.**