



# Certificate of Presentation of Paper

*This is to certify that the paper entitled*

**A Path Planning Optimization Algorithm Based on Particle Swarm Optimization for UAVs for Bird Monitoring and Repelling - Simulation Results**

*by Ricardo Jorge Mendes Mesquita; Pedro D Gaspar*

*has been presented at the*

*The International Conference on Decision Aid Sciences and Applications (DASA'20)*

*Organized by the University of Bahrain*

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A handwritten signature in black ink, appearing to be 'Dr. M. R. Qader'.

**Dr. M. R. Qader**  
**Dean, Deanship of Graduate Studies and Scientific Research**