

# A Lightweight and Practical UAV Authentication System Implementation based on Proof-of-History Blockchain

## Authors

**Author 1:** Huijuan Hu

*Lecturer*

School of Computer Science

Nanjing University of Posts and Telecommunications

Nanjing, China

Email: hhj@njupt.edu.cn

**Author 2:** Muntasir Al Mamun

College of Overseas Education

Nanjing University of Posts and Telecommunications

Nanjing, China

Email: f22040119@njupt.edu.cn

**Author 3:** Ping Tan

*Assistant Professor*

College of Tongda

Nanjing University of Posts and Telecommunications

Nanjing, China

Email: tanping5.20@njupt.edu.cn

**Author 4 (Corresponding Author):** He Xu

*Professor*

School of Computer Science

Nanjing University of Posts and Telecommunications

Nanjing, China

Email: xuhe@njupt.edu.cn

### **Corresponding Author Information:**

Professor He Xu

School of Computer Science

Nanjing University of Posts and Telecommunications

Email: xuhe@njupt.edu.cn

### **Acknowledgements:**

This research was supported by Nanjing University of Posts and Telecommunications. The authors would like to thank the School of Computer Science, College of Tongda, and College of Overseas Education for their support and resources. We also acknowledge the use of Microsoft AirSim and PX4 Software-in-the-Loop (SITL) simulation environments for the implementation and validation of our system.

### **Declarations:**

**Funding:** This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

**Conflict of Interest:** The authors declare that they have no conflicts of interest.

**Data Availability:** The simulation data and code used in this study are available from the corresponding author upon reasonable request.