

CALL FOR PAPERS - *IEEE Transactions on Vehicular Technology*

Special Issue on *Low-Altitude Wireless Networks (LAWN)*

The emergence of unmanned aerial vehicles (UAVs), drone swarms, and eVTOL platforms is transforming the low-altitude airspace (100 - 3,000 meters above ground) into a critical new layer of digital infrastructure. This airspace is central to enabling advanced services such as precision agriculture, urban air mobility, autonomous aerial logistics, environmental monitoring, and public safety operations. However, these emerging services demand far more than simple aerial connectivity, requiring highly reliable, low-latency communication, real-time environmental sensing, cooperative control, and onboard intelligence. Low-Altitude Wireless Networks (LAWN) represent a paradigm shift from conventional aerial communications by introducing a multifunctional, service-aware, and dynamically reconfigurable 3D network fabric that integrates communication, sensing, control, and distributed computing across aerial and terrestrial nodes. LAWN enables intelligent, mission-driven aerial operations and supports future autonomous systems by combining cross-layer design principles with advanced technologies.

This Special Issue aims to bring together cutting-edge research contributions that advance the theoretical foundations, algorithmic innovations, system architectures, and practical deployments of LAWN. We welcome submissions from both academia and industry that address novel challenges, propose innovative solutions, and demonstrate real-world prototypes and testbeds. Topics of Interest include, but are not limited to:

- LAWN Architectural Design
- Cross-Layer Optimization for LAWN
- Co-design of communication-control-sensing-computing in LAWN
- Advanced Waveforms and Signal Processing for LAWN
- Spectrum Sharing and Coexistence in 3D Airspace
- Swarm Coordination in LAWN
- Multi-modal Signal Fusion for UAV Detection and Monitoring
- URLLC for Safety-Critical Applications in LAWN
- Integrated Sensing and Communication (ISAC) for LAWN
- Visual Perception under Environmental Variations for LAWN
- Scalable Air Traffic Management for LAWN
- Multi-modal Signal Fusion in LAWN
- Edge AI and Distributed Learning for LAWN Intelligence
- Semantic Communications and Knowledge-Driven Protocols for LAWN
- Energy-Efficient Protocols and Wireless Power Transfer in LAWN
- Cyber-Physical Security for LAWN
- Commercial LAWN Deployments
- Drone-based Delivery, Infrastructure Inspection, and Public-Safety Networks
- Integration of LAWN with Urban Air Mobility and eVTOL Operations
- Air-to-Ground and Air-to-Air Channel Modeling and Measurement for LAWN
- Field Tests and Simulation Platforms for LAWN
- 3GPP / 5G-ACIA / ASTM / RTCA Standardization Progress
- Regulatory Frameworks and Standardization Efforts for LAWN

Prospective authors should submit their manuscripts following the [IEEE TVT Instructions for Authors](#).

Submissions are accepted as either **Regular** papers (up to 14 pages) or **Correspondence** papers (up to 5 pages).

Authors should submit the manuscripts through [IEEE Transactions on Vehicular Technology Author Portal](#)

Important Dates (Tentative)

- Manuscript Submission Deadline: 15 February 2026
- First Notification: 30 April 2026
- Revised Manuscript Due: 31 May 2026
- Acceptance Notification: 30 June 2026
- Final Manuscript Due: 15 July 2026
- Publication Date: Third Quarter 2026

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