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**P1936.3**

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**Type of Project:** New IEEE Standard  
**Project Request Type:** Initiation / New  
**PAR Request Date:** 31 May 2022  
**PAR Approval Date:** 21 Sep 2022  
**PAR Expiration Date:** 31 Dec 2026  
**PAR Status:** Active

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**1.1 Project Number:** P1936.3  
**1.2 Type of Document:** Standard  
**1.3 Life Cycle:** Full Use

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**2.1 Project Title:** Standard for Unmanned Aircraft Systems (UAS) using Light Detection and Ranging (LiDAR) for above 110 kV Overhead Transmission Line Survey and Design

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**3.1 Working Group:** Unmanned Aircraft Systems in Power Grid Applications—Unmanned Aircraft Systems Using Light Detection And Ranging for Survey and Design(COM/AerCom-SC/UASPGA-LiDARSD)

**3.1.1 Contact Information for Working Group Chair:**

**Name:** Wenjun Han  
**Email Address:** hanwenjun730@163.com

**3.1.2 Contact Information for Working Group Vice Chair:**

None

**3.2 Society and Committee:** IEEE Communications Society/Unmanned Aerial Vehicles Communications Standards Committee(COM/AerCom-SC)

**3.2.1 Contact Information for Standards Committee Chair:**

**Name:** Haiying Lu  
**Email Address:** john-bj@163.com

**3.2.2 Contact Information for Standards Committee Vice Chair:**

None

**3.2.3 Contact Information for Standards Representative:**

**Name:** Kameswara Rao Namuduri  
**Email Address:** kamesh.namuduri@unt.edu

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**4.1 Type of Ballot:** Entity

**4.2 Expected Date of submission of draft to the IEEE SA for Initial Standards Committee Ballot:** Mar 2025

**4.3 Projected Completion Date for Submittal to RevCom:** Oct 2025

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**5.1 Approximate number of entities expected to be actively involved in the development of this project:** 20

**5.2 Scope of proposed standard:** UAS in combination with LiDAR are effective in DEM generation and land use survey, which are important for transmission lines design. This standard specifies the operational requirements for the workflow, procedure, technical parameters, and quality control of the UAS using LiDAR for above 110 kV overhead transmission line survey and design.

**5.3 Is the completion of this standard contingent upon the completion of another standard?** No

**5.4 Purpose:** This document will not include a purpose clause.

**5.5 Need for the Project:** A standard is needed to help solve the practical problems encountered in the survey and design of overhead transmission lines above 110 kV, improve the efficiency of data acquisition, and ensure the quality of survey and design.

**5.6 Stakeholders for the Standard:** UAS manufactures, UAS operators, Grid designers, UAS users, Grid operators.

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**6.1 Intellectual Property**

**6.1.1 Is the Standards Committee aware of any copyright permissions needed for this project?**

No

**6.1.2 Is the Standards Committee aware of possible registration activity related to this project?**

No

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**7.1 Are there other standards or projects with a similar scope?** No

**7.2 Is it the intent to develop this document jointly with another organization? No**

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**8.1 Additional Explanatory Notes:**