

# Development of a UAV-based System for Technical Diagnostics of Overhead Power Lines

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**Abstract**—The problems associated with the operation of overhead power lines and ways of improving control over their condition with the help of UAVs are considered. A structural diagram of the system of technical diagnostics of overhead lines based on UAVs was developed, for which the necessary diagnostic parameters were selected according to informative criteria. An analysis of types of UAVs was carried out in order to determine their suitability and efficiency of use for diagnosing the condition of overhead lines.

**Keywords**—overhead power line, technical diagnostics, UAV, non-destructive testing

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