# Energy Inefficiency Diagnosis for Android Applications: A Literature Review

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# Problems & Ideas

- Android is one of the most popular mobile operating systems
  - Millions of users over the world are using Android applications.
  - Android applications are getting increasingly complex and powerful.
- Android devices have limited battery power. Applications are expected to be energy efficient. However, many Android applications contain energy defects.
- Problem: Many approaches have been proposed to analyze the energy efficiency of Android applications, but there is no systematic literature review on the topic.
- Ideas: Analyze research papers on energy inefficiency diagnosis for Android applications and compare existing tools to structure and unify the literature and shed light on future research.

# Main Contributions

- Contributions :
  - A literature review from four perspectives: 1) power estimation method, 2) hardware component, 3) types of energy defects, 4) program analysis approach.
  - A cross-perspective comparison of techniques for energy inefficiency diagnosis.