

Demo: A Robust Barcode System for Data Transmissions over Screen-Camera Links

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Abstract:

With the rapid proliferation of camera-equipped smart devices, visible light communication (VLC) over screen-camera links emerges as a novel form of near-field communication, and it offers a user-friendly, infrastructure-less and secure communication. However, the limitations of smart devices and the uncertainty of user behaviors seriously hinder its applicability. Hence, we designed RDCode, a novel barcode system proposed to boost the throughput over screen-camera links, by making use of a novel layered barcode design and several effective coding techniques to enhance the transmission reliability. We implemented a file transmission app on Android platform based on our work. The transmission rate can be up to 20KB/s.

