

Flexible, Printed Electronics for Sensing and Energy Storage

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Abstract

SI2 Technologies develops flexible/shape-conformal sensors and specialty RF structures (e.g., antennas). These components may be incorporated into size-, weight-, power-, and cost-constrained vehicles, for example, or worn on the body. We use a combination of conventional and digital manufacturing techniques in product development. Specifically, SI2 has considerable experience in the roll-to-roll, patterned deposition of functional inks (e.g., conductors). These patterned inks are printed directly from an electronic drawing in an ambient environment; no tooling, masks, etc. are required. Recently, we have begun developing printed components for wearable health monitoring sensors (e.g., to detect head trauma) and flexible, lightweight energy storage devices. This talk will provide an overview of SI2's printed electronics activities.