

SpecimenTrak: an RFID system for tagging and tracking anatomical specimens

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SpecimenTrak is an ongoing research activity at UCLA – WINMEC RFID Lab for tracking anatomical specimen using Low Frequency – Radio Frequency Identification (RFID) technology. In this research, attempt has been to develop and observe RFID-assisted processes to automate the workflow of anatomical materials services throughout the entire duration of the life cycle (receipt, inventory, allocation and disposal) of the specimen. The discussion will cover the system architecture, different system modules and features of the current version of the system. Salient operational features of the system are the ability to assign unique identity to individual specimen, assign location to the specimen, accurate and instant tracking and tracing capability using the unique identity, maintaining hierarchy between the specimen harvested from a donor, detail specimen related activity and event logs, and maintain chain of custody. Potential benefits are data entry error mitigation, improved productivity and accountability, better security and anti-pilferage measures, automatic supervisory oversight, rapid inventory reconciliation, and better regulatory and protocol compliance monitoring. The system trial planning, pilot studies, deployment issues and other results will be presented. Future development and the potential of using this system in other healthcare applications will also be shared.

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