



ABSTRACT

This research investigates the potential of Electric Paint in creating interactive appliances and aims to provide a good user experience. It focuses on Human-Computer Interaction (HCI) principles and aims to apply them to the 2D appliances created using Electric Paint on a canvas. Electric Paint is a type of paint that can conduct electricity and can be used to create circuit boards by painting the desired area on non-conductive surfaces. When those areas are touched, different sensors can be triggered like playing a sound or activating a light. The final design consists of a canvas with five 2D musical instruments, a music playlist, and 'Animals for Kids.' The design was modified based on the survey's feedback to enhance usability.

RESEARCH AREA

Human-Computer Interaction subfields:

- User Interface (UI)
- User Experience (UX)
- Usability
- Psychology behind Design
- Business World & Design

The Evolution of Human-Computer Interaction and its Technological Advancement with a Focus on Applications with Electric Paint



Sobika Thapa

Advised by: Dr. Heather Guarnera

HARDWARE COMPONENTS

- Electric Paint – conductive paint
- Raspberry Pi – small computer
- PiCap – capacitive sensor
- Wires
- Conduct Tapes
- Canvas

HOW DOES IT WORK?

