

Intelligent Design System for Innovation

SENSORY MATERIALS LIBRARY



The Sensory Materials Library (SML) is developing an inclusive and holistic approach towards making the sensory properties of materials accessible within a materials library. The SML and an embodied knowledge design input tool, AiLoupe, enable human intervention and creativity, and so permit a responsive manufacturing process. The project is aimed at harnessing implicit, embodied knowledge to enable distributed and democratic design. Through image-based material classification, AiLoupe presents sensory properties to designers by recalling materials in the built database.

Key Features & Applications

- ⚡ Novel material dataset with multi-sensory material qualities;
- ⚡ AiLoupe provides a mobile-application interface for designers to access, explore and contribute to the SML on the go and in the studio;
- ⚡ Connect material research from raw materials, distributed manufacturing, branding, retail, product use, end-of-life and circular processes

Benefits to Industry

- ⚡ Proposes a reference set of materials or material combinations based on the requirements of textile designers, makers, and engineers, where current material libraries do not include detailed sensory material properties;
- ⚡ Digitally accessible SML reduces waste and energy associated with sourcing and sampling and logistics;
- ⚡ Propose new biomaterials and sustainable alternatives, resulting in more educated and appropriate material selection within the design process

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