# Emotion Responsive Smart Fabrics: Monitoring and Analyzing Stress Levels and Depression Status in Patients.

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**Abstract –** The expeditious advancement of wearables has escalated the avenue for healthcare solutions. In this research, the Galvanic Skin Response (GSR) is to be exploited in the physiological identification of emotions and the Emotional Artificial Intelligence (AI) for data analysis. This conceptual study focuses to investigate and develop a system that can accurately detect and analyse the patients' emotional status in real-time. The GSR sensors amalgamated into smart fabrics amass data on the physiological responses correlated to stress and emotional arousal. These sensors compute changes in the skin's electrical conductivity, providing invaluable sagacity into a patient's emotional state. Furthermore with addition to smart fabrics ChroMorphous technology is added to change the colour of fabrics according to patients emotional state. Thus allowing the caregivers and wearer to have an instinctive understanding of the patient's emotional state, fostering empathy and timely intervention. Real-time data is collected conscientiously and processed using sophisticated emotional AI algorithms adept at analyzing and elucidating the emotional patterns disclosed by the patients. This information is then stored in a centralized database, where healthcare professionals, specifically psychiatrists, can access and review it. By weighing up the stress levels and depression status of patients over time, psychiatrists can acquire a perspicacity of their mental well-being, identify potential triggers, and attune to personalized treatments.This research aims to identify and examine the potential of smart fabrics and emotional AI and GSR in mental health monitoring and research. Decomposing the database trends and patterns related to depression levels and stress, groundbreaking the reach for customized treatments and boosting mental well-being.

**Keywords:** Emotional AI, Galvanic Skin Response(GSR), Smart fabrics, stress level, depression status, mental health tracking.