ABSTRACT

SUGGESTIVE AUTOMATED MENTAL DISORDER IDENTIFICATION AND PREVENTION SYSTEM

Mental health disorders represent one of the most significant global health challenges, yet access to timely identification and support continues to be limited due to social stigma, lack of awareness, and the shortage of qualified professionals. In response to this issue, the proposed work introduces the *Suggestive Automated Mental Health Identification System*, an AI-driven chatbot designed to provide preliminary insights into an individual's mental health condition based on conversational inputs. The system is developed as a web-based platform, employing Flask as the backend framework and a chatbot-style interface on the frontend. Users interact with the chatbot by typing their thoughts and emotions in natural language, which are then processed by the backend to generate appropriate responses.

The core functionality of the system relies on a hybrid approach that combines rule-based natural language processing with a structured knowledge base of mental health disorders. This knowledge base contains curated information on conditions such as depression, anxiety, obsessive-compulsive disorder, post-traumatic stress disorder, and bipolar disorder. By mapping user expressions to symptoms and disorder patterns, the system is capable of offering suggestive insights and delivering context-aware responses. While the chatbot provides empathetic and supportive interaction, it also shares disorder-specific information and encourages individuals to seek professional consultation whenever necessary.

The system emphasizes accessibility and scalability. Its design allows for continuous updates to the disorder dataset through simple modifications to a CSV file, while the modular architecture ensures future integration of advanced machine learning techniques for improved classification accuracy. Although it is not a substitute for medical professionals, the system seeks to function as a supportive companion that enhances awareness, reduces stigma, and guides individuals toward timely help. In doing so, the project contributes to bridging the gap in mental health care and demonstrates how artificial intelligence can be employed for social good.