

## Hidden Markov Model for the Simulation Study of Neural States and Intentionality

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**Abstract :** Hidden Markov Model (HMM) has been used in prediction and determination of states that generate different neural activations as well as mental working conditions. This paper addresses two applications of HMM; one to determine the optimal sequence of states for two neural states: Active (AC) and Inactive (IA) for the three emission (observations) which are for No Working (NW), Waiting (WT) and Working (W) conditions of human beings. Another is for the determination of optimal sequence of intentionality i.e. Believe (B), Desire (D), and Intention (I) as the states and three observational sequences: NW, WT and W. The computational results are encouraging and useful.

**Keywords :** hidden markov model, believe desire intention, neural activation, simulation

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