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BMI Prediction using Kinect and Data Mining Techniques for Healthcare System

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Abstract: *Body mass index (BMI) is a person's weight in kilograms divided by the square of height in meters. Body mass index is a measurement of obesity based on measured height and weight. Traditional method of calculating BMI is inconvenient and requires physical measuring of a person and particular instruments. A proposed healthcare system to predict BMI using Kinect and data mining techniques so that everybody can easily predict their BMI values using Facial images. Face detection and feature extraction component using haar cascade to detect useful face information. Framework by using facial images that uses machine learning algorithms for data mining namely, Data Preprocessing, Data Extraction, data evaluation and presentation to train models that would help predict obesity levels (Classification), Bodyweight, and fat percentage levels (Regression) using various parameters. System helps to advance the study aspect based on body weights and patients that are paralyzed or severely ill patient who unable to undergo basic measurement for emergency medical service.*

Keywords: BMI; data mining; face feature extraction

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