Biosense Telemetry System For Contextual Health And Fitness Assessments

Abstract

The present invention describes a biotelemetry system (100) for monitoring a user's health and fitness states using wearable biosensors (110,110a-110f) when undergoing a physical fitness training regime. Uni-variate (210) and multi-variate (220) analyses of the biosensor data are made in context with the user's age, gender, BMI and historical health records, hydration level, and so on; training loads; emotional or mental stress; external environments, and so on. Fitness baselines obtained through the univariate and multi-variate analyses, in context with engineered parameters of energy capacity (EC) 160 and fatigue risk (FR) 165 (such as, perceived EC score 160a, perceived FR score 165a, heart rate recovery characteristic, heart rate inter-beat interval characteristic, respiration rate characteristic) are used to ensure training safety and to enhance trainee performance; training effectiveness is thus enhanced with a balance between training loads and safety.

FIG. 1 for publication.