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Objective detection of chronic stress using physiological parameters

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Abstract: The aim of this study was to design a system to diagnose chronic stress, based on blunted reactivity of the autonomic nervous system (ANS) to cognitive load (CL). The system concurrently measures CL-induced variations in pupil diameter (PD), heart rate (HR), pulse wave amplitude (PWA), galvanic skin response (GSR), and breathing rate (BR). Measurements were recorded from 58 volunteers whose stress level was identified using the State-Trait Anxiety Inventory. Number-multiplication questions were used as CLs. HR, PWA, GSR, and PD were significantly (p ?