Human Fatigue Evaluation During Smart Working Sessions

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Abstract.
In the entire world, 2020 will be remembered as a pandemic year, in which COVID-19 virus has forced to lockdown entire cities and countries. The concept of work, in this context, is changed radically, especially for production companies that have been obliged to close temporarily their production departments; on the other hand, other professional figures, such as engineers, analysts, call center workers, school and university professors or personnel, etc., experimented the so-called “smart working”, namely a type of work free of time and place constraints, simply by using a personal computer and an internet connection, changing completely their habits. This paper aims at investigating how the change of working conditions affects the perceived fatigue by workers. In detail, an experimental study has been conducted on some smart workers by means of the PERCLOS method, that allows to evaluate drowsiness, simply by recording workers faces during the job and analysing their mouths and eyes.
Results shows how fatigue grows during the working hours, but in different manners between people with different circadian chrono-types.