According to a first aspect of the invention, there is provided a personal wearable EEG monitor adapted to be carried at the head of a person, said EEG monitor comprising EEG sensor part having skin surface electrodes for measuring one or more EEG signals from said person, wherein at least one electrode is adapted to be arranged in an ear canal of said person; EEG signal analyzer adapted for having an EEG signal transferred from said EEG sensor part, and adapted for monitoring the EEG signal from said person, EEG stimuli controlling means adapted for performing at least one of the following: providing an auditory stimulus to said person from an auditory stimulus means in the ear canal of said person, requesting said person to perform a stimulus-creating act, identifying a potentially stimulus-creating ambient sound, EEG response detection means for identifying an induced response from the EEG signal caused by said stimulus, and a classifier for deciding based on said at least one induced response if said skin surface electrodes receive EEG signals of said person.

In an embodiment the EEG monitor further comprises notification means for notifying said person if the EEG signal is not received. The person may then improve the positioning of the electrode part. In a further embodiment the EEG monitor comprises means for transmitting a wireless notification to an external unit in the event that the EEG signal is not received by the electrodes.

According to a second aspect of the invention, there is provided a method for continuously monitoring EEG signals of a person by an EEG monitor carried at the head of said person, said method comprising the steps of measuring one or more EEG signals from said person by an EEG sensor part having skin surface electrodes, wherein at least one electrode is adapted to be arranged in an ear canal of said person, transferring an EEG signal from said EEG sensor part to a processing unit having EEG signal processing means, monitoring the EEG signal from said person in said processing unit, causing an induced response in the EEG signal by performing at least one of the following: providing an auditory stimulus to said person from an auditory stimulus means in the ear canal of said person, request said person to perform a stimulus creating act, identifying a stimulus creating ambient sound, identifying an induced response from the EEG signal caused by said stimuli, and deciding based on said induced response if said skin surface electrodes receive EEG signals of said person.

There is also provided ~~In a second aspect the invention relates to~~ a method for continuously monitoring EEG signals of a person by an EEG monitor carried at the head of said person, said method comprising the steps of measuring one or more EEG signals from said person by an EEG sensor part having skin surface electrodes, transferring an EEG signal from said EEG sensor part to a processing unit having EEG signal processing means, and monitoring the EEG signal from said person in said processing unit. The method further comprises causing an induced response in the EEG signal by performing at least one of the following: providing a stimulus to said person, requesting said person to perform a stimulus creating act, or identifying a stimulus creating ambient sound. The method further comprises identifying an induced response from the EEG signal caused by said stimuli, deciding based on said induced response if said skin surface electrodes receive EEG signals of said person, and notifying said person if the EEG signals are not received by said electrodes.

In an embodiment the method comprises the step of notifying said person if the EEG signal is not received by said electrodes.

In an embodiment the method comprises the step of identifying the specific electrodes receiving an EEG signal. Then the EEG signal can be monitored by these electrodes. In a further embodiment the method comprises the step of reconfiguring the EEG monitor to measure the EEG signal by applying electrodes receiving an EEG signal.

In an embodiment the method comprises repeating the steps of causing an induced response in the EEG signal and identifying an induced response from the EEG signal at time intervals either preselected or adjusted according to previous decisions if said