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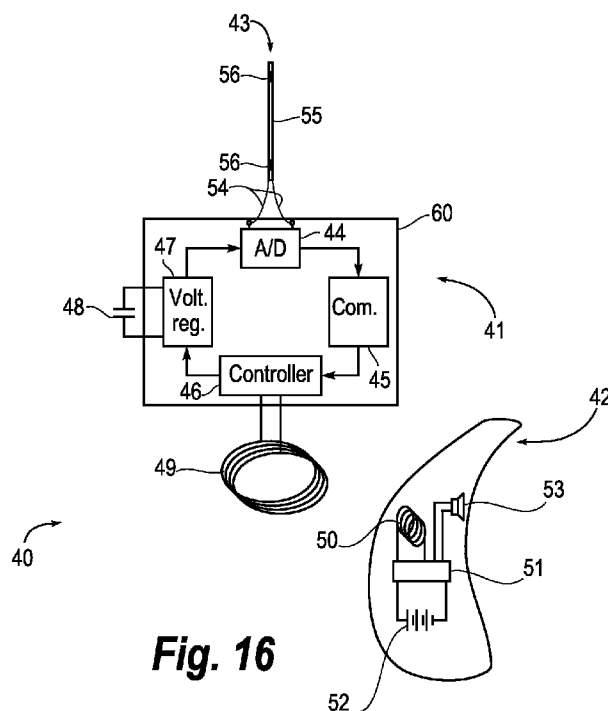
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(54) Title: INPUT CONVERTER FOR AN EEG MONITORING SYSTEM, SIGNAL CONVERSION METHOD AND MONITORING SYSTEM

**Fig. 16**(57) Abstract: In order to minimize noise and current consumption in an EEG monitoring system (40) which can be continuously carried by a person being monitored, an input converter (44) for an EEG monitoring system is devised. The analog-to-digital converter of the input converter has an input stage, an output stage, and a feedback loop, and the input stage comprises an amplifier (Q_A) and an integrator (RLF). A voltage transformer (IT) is placed in the input converter upstream of input stage. The transformation ratio of the voltage transformer (IT) has a transformation ratio such that it provides an output voltage larger than the input voltage, thereby multiplying the signal voltage for the input stage by a fixed factor. The voltage transformer (IT) is a switched-capacitor voltage transformer having at least two capacitors (C_x , C_y , C_z). The invention further provides a method of converting an analog signal, and an EEG monitoring system comprising the input converter (44).