Claims

We Claim:

1) An energy saving time display device (100) comprising:

an hour hand (102) and a minute hand (104) for indicating the time, wherein the hour hand (102) and the minute hand (104) are coupled to a gear mechanism, wherein the gear mechanism is configured to drive the hour hand (102) and the minute hand (104) to represent the time;

at least one micro motor (106) for driving the hour hand (102) and the minute hand (104) to characterise the time;

a scheduler (108) coupled to the micro motor (106) to schedule the movement of the hour hand (102) and the minute hand (104) for actuation of a first state and a second state of the micro motor (106);

a time observance unit (110) configured to keep track of the current time, wherein the time observance unit (110) comprises a real-time clock that is configured in maintaining schedules of the scheduler (108), and in order to drive the micro motors to characterize the current time;

an actuator (112) coupled to the micro motor (106) to actuate the micro motor (106) from a first state to a second state, wherein said first state is a sleep mode and said second state is an activated mode, wherein sleep time period of the sleep mode is automatically determined by the scheduler (108) based on the activity of a user of the energy saving time display device (100), and, wherein during said sleep mode, the energy saving time display device (100) stops movement of the hour hand and the minute hand for the sleep time period, and wherein at any point of time, when the energy saving time display device (100) is in the sleep mode, the actuator (112) is configured to actuate the micro motor (106) to characterize the current time by driving the minute hand (104) and the hour hand (102) to the respective position only when actuated by the user, and after displaying the current time, the energy saving time display device (100) stops moving the minute hand (104) and the hour hand (102) and automatically returns to the sleep mode, and thereafter returns to the second state and starts movement of the hour hand and the minute hand on expiry of the sleep time period.

2) The energy saving time display device as claimed in claim 1, wherein the energy saving time display device comprises at least two micro motors for driving the hour hand and the minute hand respectively to represent the time.

3) The energy saving time display device as claimed in claim 1, wherein the energy saving time display device is at least one of a motorized clock, time piece or a wrist watch or a smart watch.
4) The energy saving time display device as claimed in claim 3, wherein the wrist watch is an analog wrist watch.
5) A method for energy conservation of an energy saving time display device (100), wherein the energy saving time display device (100) comprises an hour hand (102) and a minute hand (104) for indicating the time, wherein the hour hand (102) and the minute hand (104) are coupled to a gear mechanism, wherein the gear mechanism is configured to drive the hour hand (102) and the minute hand (104) to represent the time, at least one micro motor (106) for driving the hour hand (102) and the minute hand (104) to characterise the time, a scheduler (108) coupled to the micro motor (106) to schedule the movement of the hour hand (102) and the minute hand (104) for actuation of a first state and a second state of the micro motor (106), a time observance unit (110) configured to keep track of the current time, wherein the time observance unit (110) comprises a real-time clock that is configured in maintaining schedules of the scheduler (108), and in order to drive the micro motors to characterize the current time, and an actuator (112) coupled to the micro motor (106) to actuate the micro motor (106) from a first state to a second state, the method comprises the steps of:

scheduling a schedule of the first state and the second state of the micro motor (106) by the scheduler (108), wherein said first state is a sleep mode and said second state is an activated mode wherein sleep time period of the sleep mode is automatically determined by the scheduler (108) based on the activity of a user of the energy saving time display device (100) ; and

executing the schedule set by the scheduler (108), wherein the micro motor (106) is configured to function for a user specified period of time to drive the hour hand (102) and the minute hand (104), wherein during said sleep mode, the energy saving time display device (100) stops movement of the hour hand and the minute hand for the sleep time period, and wherein at any point of time, when the energy saving time display device (100) is in the sleep mode, the actuator (112) is configured to actuate the micro motor (106) to characterize the current time by driving the minute hand (104) and the hour hand (102) to the respective position only when actuated by the user, and after displaying the current time, the energy saving time display device

(100) stops moving the minute hand (104) and the hour hand (102) and automatically returns to the sleep mode, and thereafter returns to the second state and starts movement of the hour hand and the minute hand on expiry of the sleep time period.

6) The method as claimed in claim 5, wherein said method includes a step of actuating the micro motor (106) to actuate the hour hand (102) and the minute hand (104) to represent the current time.