The determined attitude information is transferred to a wireless transmitter 4 to be communicated to a spacecraft onboard computer. The calculated measurement errors are communicated to an energy manager 3. The energy manager 3 compares the errors with a predesigned threshold 3a. If the errors are small enough, it is possible to use the estimated sensor measurements for the attitude determination. In that case the energy manager 3 reduces in block 3b the sampling rate of the sensors 5, 6, 7. Thus, the energy manager 3 schedules the so-called wake-up time of the sensors 5, 6, 7 to tune the energy consumption of the system 1.

Figure 2 shows a data flow diagram for the proposed system 1 according to the invention. As it is shown in this flow diagram, data is communicated between wireless transmitter 4 that connects to the onboard computer, and a filter 2 of the attitude determination system. The filter 2 is providing data to the energy manager 3. At the same time the filter 2 is receiving measurement signals from sensors 5, 6, 7, notably a three axis gyroscope 3, a three axis magnetometer 6, and a two axis sun-sensor 7. The energy manager 3 continuously communicates an updated measurement-rate to the sensors 5, 6, 7 while it simultaneously receives information about the available energy and the status of the power source 8, which may be an energy harvester in the form of a solar cell in combination with a battery.