What is Claimed:

1. A sensing system for sensing a potential complication at a site of a venous catheter inserted within a vein of a patient, the system comprising:

(i) a sensor module configured for attachment at the site of the venous catheter, the sensor module including:

(a) a pressure sensor configured to generate pressure data representing measured pressure at the site of the venous catheter;

(b) a temperature sensor configured to generate temperature data representing measured temperature at the site of the venous catheter;

(c) a bio impedance sensor comprising two pairs of bio impedance electrodes that are together configured to generate bio impedance data comprising bio-electrical signals representing bioelectrical activity at the site of the venous catheter;

(d) a transmitter coupled to the sensors and the bio impedance electrodes, the transmitter configured to receive an interrogation signal and produce a response signal in response to the interrogation signal, the response signal including the generated pressure, temperature and bio impedance data; and

(e) a biocompatible substrate configured to support the pressure sensor, the temperature sensor, the bio impedance sensor and the transmitter; and

(ii) a computing device including a non-transitory computer readable medium having stored thereon a program, wherein execution of the program of the non-transitory computer readable medium configures the computing device to:

(a) emit, with an antenna system of the computing device, the interrogation signal;

(b) receive, with the antenna system of the computing device, the response signal that includes the generated pressure, temperature and bio impedance data; and

(c) transmit the generated pressure, temperature and bio impedance data to a user device for comparing the generated pressure, temperature and bio impedance data to threshold values indicative of intravenous complications.

2. The system of claim 1, wherein the computing device comprises:

a microcontroller,

a temperature sensor,

a near field communication (NFC) reader coupled to the microcontroller for receiving the pressure, temperature and bio impedance data and modulating the pressure, temperature and bio impedance data onto a response signal, and

wherein the antenna system of the computing device is a wireless transmitter coupled to the microcontroller for transmitting the response signal to the user device.

3. The system according to any one of claims 1 or 2, wherein the pressure sensor, the temperature sensor, and the bio impedance sensor are positioned on the same layer of the biocompatible substrate.

4. The system according to any one of claims 1 to 3, wherein the antenna system is a wireless transmitter that is configured to emit signals via Bluetooth or Wi-Fi.