

## Title of Invention AI PlugIn Speech Synthesis Software for Pulse Oximeter

**Inventor** 1. WOOJU LIM / 2. INGU HWANG / 3. JEONGDAE HWANG

**Affiliation** 1. Deerfield Academy / 2. Laurel Springs School / 3. St. Paul Preparatory, Seoul

### Abstract of Invent

In instances of procedures that may cause significant discomfort or pain to patients, such as surgery for physical trauma and endoscopy, patients are put to sleep through anesthesia injection. Such anesthetics can cause respiratory suppression, so physicians often screen blood oxygen saturation and heart rate throughout the procedure using a device called pulse oximeter.

In custom, an assistant or a nurse tells the operator the readings of the pulse oximeter. Our AI Speech Synthesis Software automatically reads out such essential information in an interval of set time, alerts when such vitals exceed normal range, and saves the information in a chart.

This tool compensates the need of an extra human resource which can be helpful in places of medical personel shortage. By eliminating an extra task of reading and writing down the readings on the device, attendants in the procedure can focus more on the procedure itself and in supporting the operator. In medical situations where time is very valuable, our tool allows for more room to keep the golden time of the patient.

Moreover, as our software is a downloadable plugin software, it is adaptable to any pulse oximeter used in various occasions and is cost effective. Such aspect allows the product to be widely available and accessible even in small clinics and developing countries.

Lastly, our software is viable with wifi and Bluetooth connection, which makes it capable to upgrades and further developments in functions, such as automatic help call during emergencies or real-time monitoring to patient guardians.

### Photo of Invention

