

Licensing Opportunity

INTUBATION ASSISTANCE WITH AUTOMATIC FACE ANALYSIS

Induction of general anesthesia leads to apnea, rendering tracheal intubation mandatory to keep the patient alive. Difficult tracheal intubation is a major cause of anesthesia-related injuries with potential life threatening complications. Nowadays, up to one third of all deaths attributed to anesthesia are consecutive to the inability to either ventilate or intubate. Detection and anticipation of difficult airway in the preoperative period is, thus, crucial for the patients' safety.

DESCRIPTION

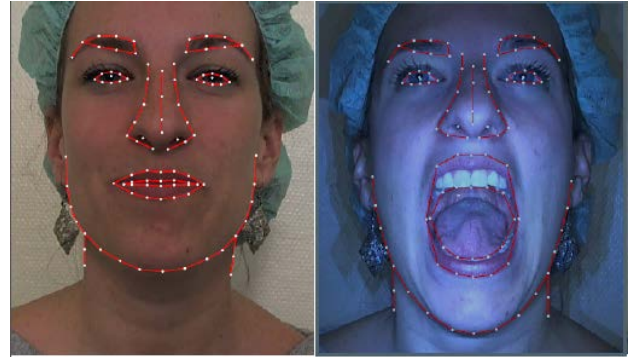
Based on an automated database including photos, videos and ground truth data on 970 patients, specific statistical face models have been designed to provide an automated parametrization of the facial morphology.

Inventors have designed a solution, by combining hardware and software, which is able to predict intubation difficulty with their automated face-analysis approach.

This solution leads to significant advantages in patients' safety, reduction of patients' injury, while allowing optimal usage of hospital resources

STAGE OF DEVELOPMENT

A prototype is available which has been validated on nine hundred patients.



Automatic feature extractions with face analysis

ADVANTAGES

It is the first completely automatic and noninvasive difficult intubation and ventilation detection system that is suitable for use in clinical settings.

INTELLECTUAL PROPERTY

Patent application pending in US and in Europe
Priority date: October 10, 2013;
in the name of the University Hospital of Lausanne and naming as inventors P. Schoettker, Christophe Perruchoud, JP. Thiran, G. Cuendet and M. Sorci

COLLABORATION TYPE

PACTT offers to grant exclusive or non exclusive license to industrial partners able to develop and commercialize the technology.

REFERENCE

IDF 10/13

PACTT TTO UNIL-CHUV

Rue du Bugnon 21
1011 Lausanne
www.pactt.ch

Céline Lafourcade
+41 (0)21 314 49 58
celine.lafourcade@chuv.ch