

1. 【研究の概要図】

この応募用紙に記載する研究の概要を以下の枠内に図式を用いて、概要図を作成してください。

研究課題名

深層学習による3次元ジェスチャー認識とハンズフリー手術支援システムの開発

Understanding of the patient's particular hepatic structure is essential and important for successful liver surgery^[1]

In traditional ways:

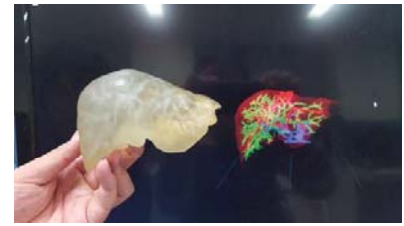
The surgeon uses the mouse and keyboard to display the medical images

×which are ill-suited for sterile condition.

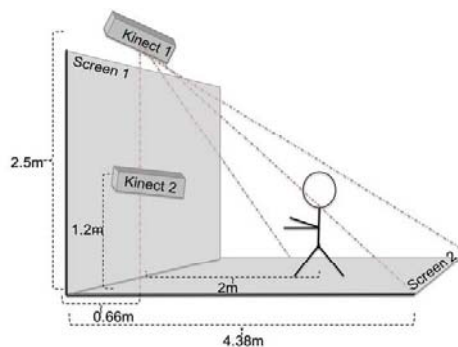
Create an accurate 3D model of the patient's real organs

×lacks flexible visualization such as zoom in/out,

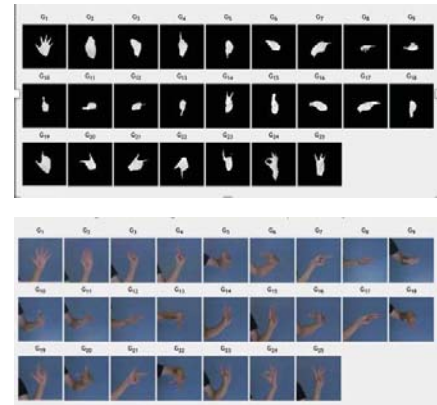
selectivity of the specific vessel.



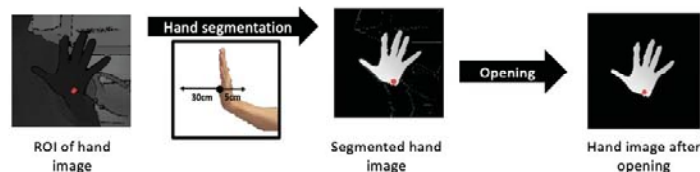
The touchless technology is an attractive and potential solution to address the above problems



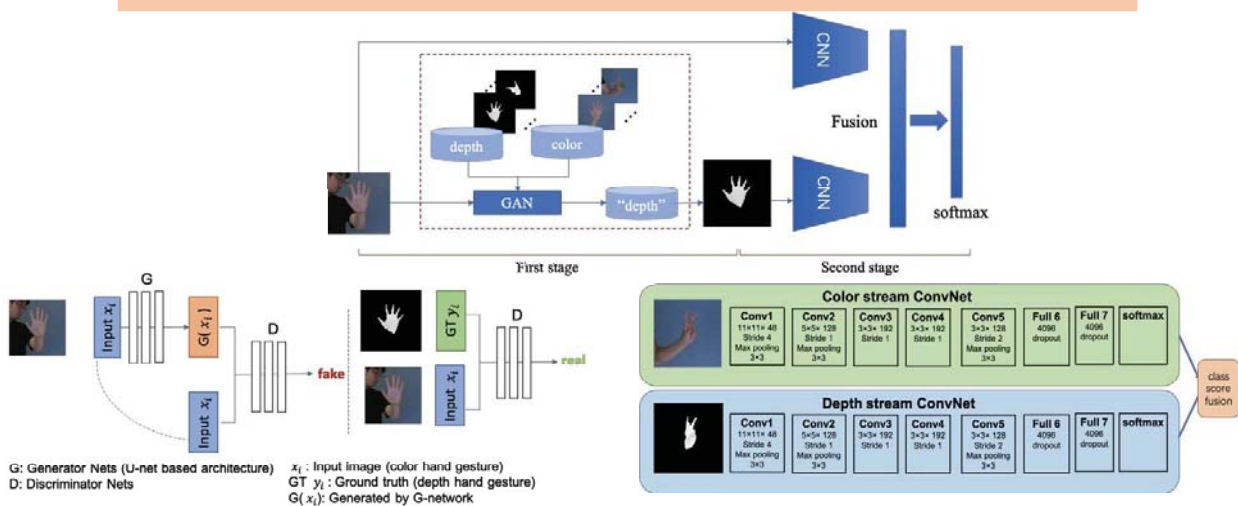
**Build a Multi-angle View
RGB-D dataset**



Hand Image Pro-processing



Classification hand gestures using two-stream Convolutional Neural Network



Gesture to operate medical model

