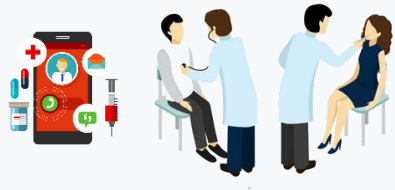


# Έξυπνη προτεραιοποίηση ασθενών Covid-19 στο Τμήμα Επειγόντων Περιστατικών

Παντελής Αγγελίδη Ιδρυτής της VIDAVO & Πρόεδρος του ΣΕΚΕΕ

# Covid-19 Triage



ESI3 patients:  
monitor their  
vital signs  
through the  
wearable



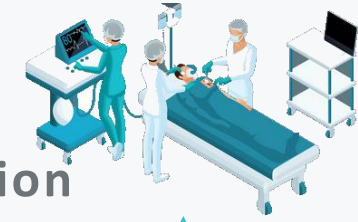
Continuous  
monitoring  
through the  
wearable  
while in  
Negative  
Pressure Room



Discharge



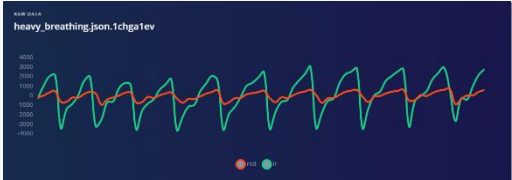
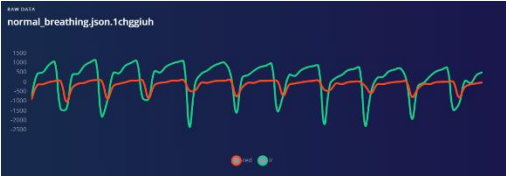
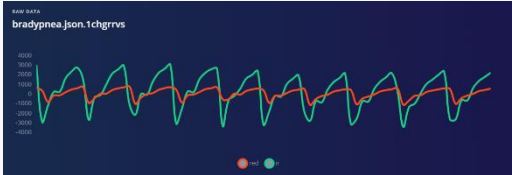
Mobile  
notification  
to prioritize  
patients



Wearable not in  
use in the ICU

Medical instructions and recovery at home.  
The wearable device can be used at home as  
well, if the physician believes that further  
monitoring is needed

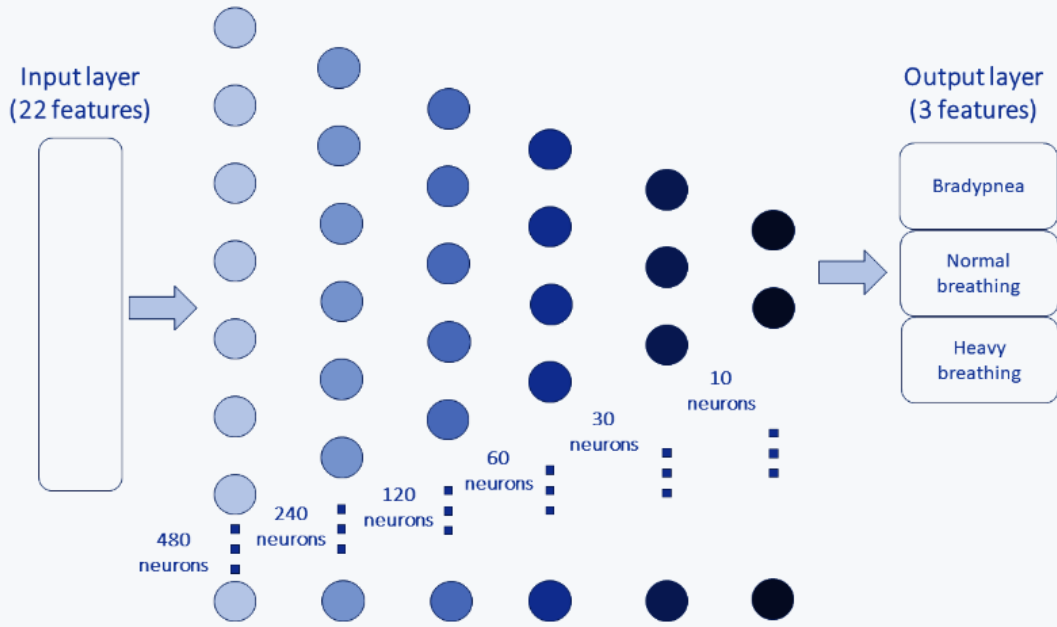
## Data acquisition



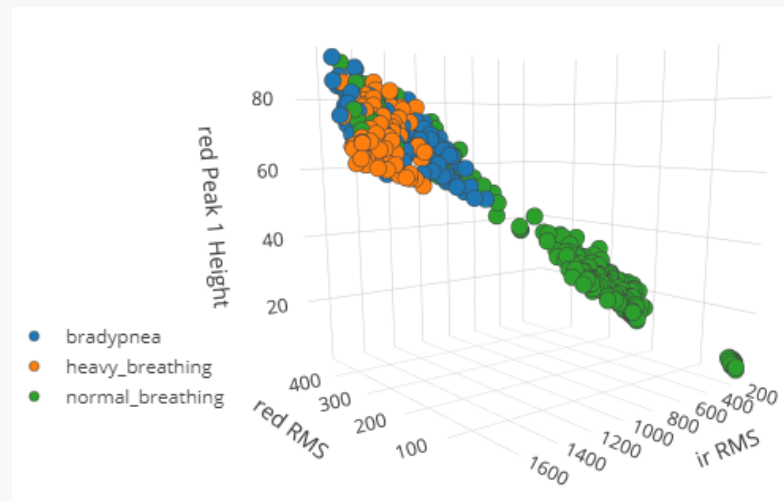
## Feature extraction

Traditional signal processing will fail to do successful classification as it is extremely difficult to recognize any feature or distinguish any pattern as presented on data acquisition column

# NN Architecture



# Confusion matrix



ACCURACY  
95.1%



LOSS  
0.23



CLASSES  
3

## Confusion matrix

	BRADYPNEA	HEAVY_BREATHING	NORMAL_BREATHING
bradypnea	457	15	10
heavy_breathing	8	436	2
normal_breathing	15	14	347

## On-device performance ⓘ

INFERRING TIME  
138 ms.



PEAK RAM USAGE  
8.8K

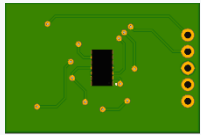
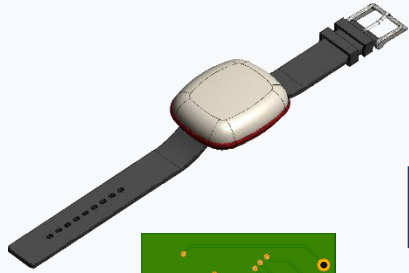


ROM USAGE  
671.3K

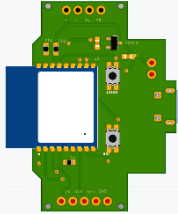


# Wearable device

3D models of enclosure  
and PCBs



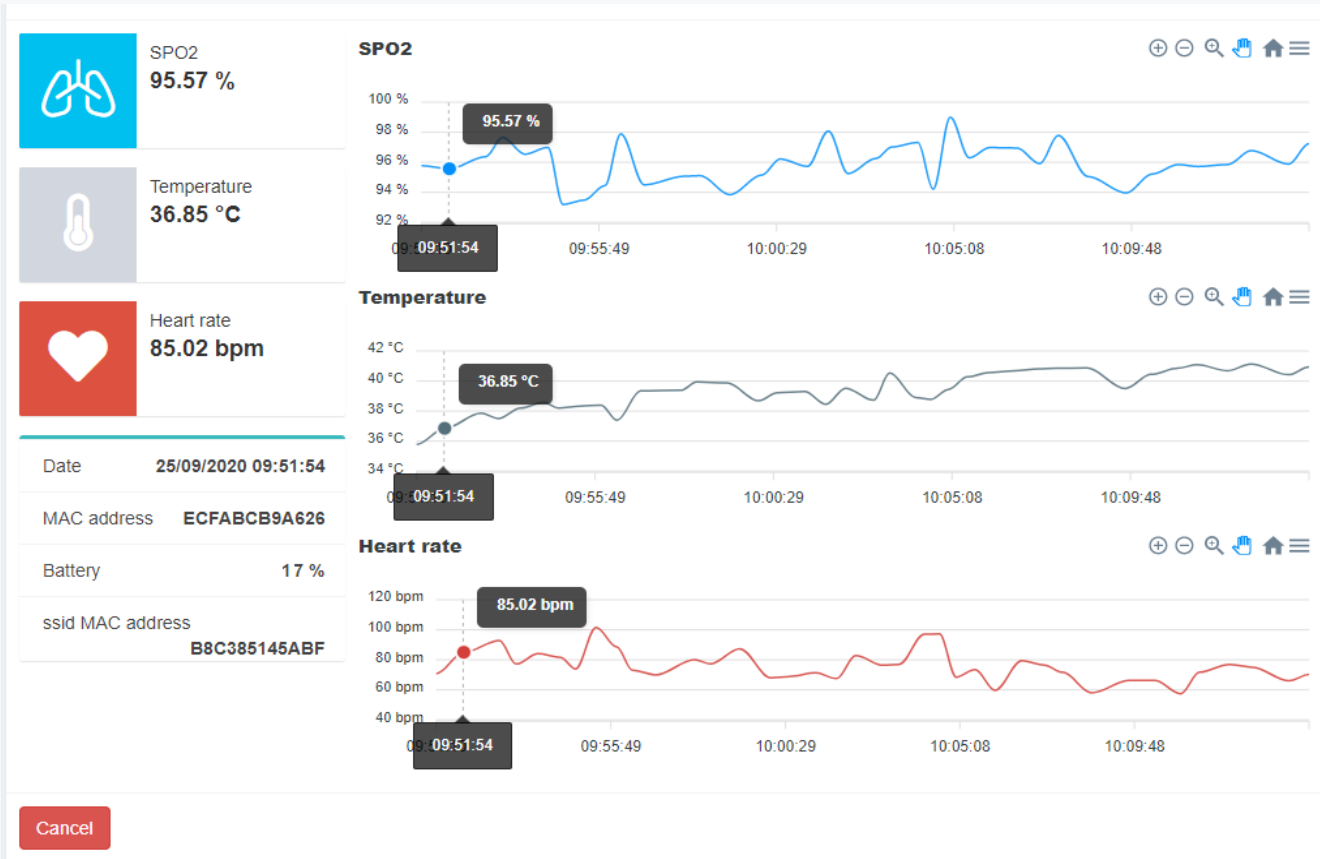
PPG sensor



Main PCB



# Dashboard







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# THANK YOU!

## Connected Care Solutions

### Contact us:

 10h km Thessalonikis – N.Moudanion,  
Building D, Balkan Center,PO.BOX.  
8109,57001, Thessaloniki, Greece

 +30 2310474762, +302310476464

 vidavo@vidavo.eu

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