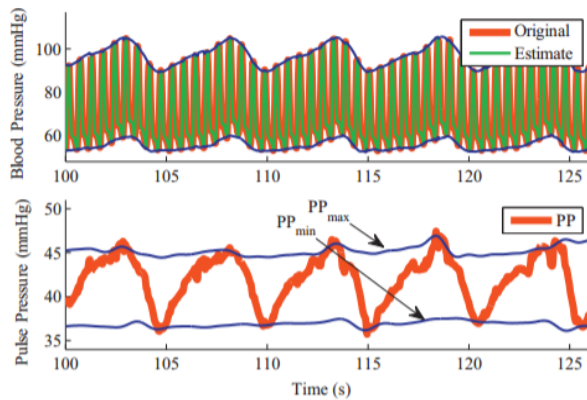
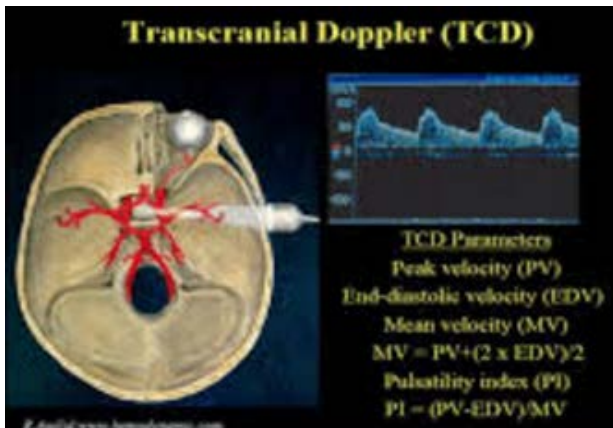


Dr. Sunghan Kim  
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 Noninvasive Physiological Monitoring, and Medical Imaging Analysis

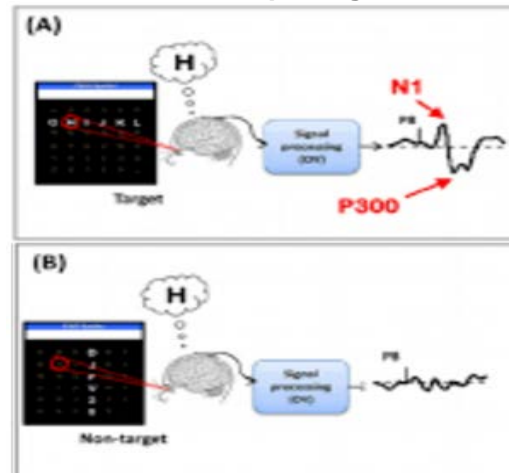
### Particle Filter based Pulse Pressure Estimation



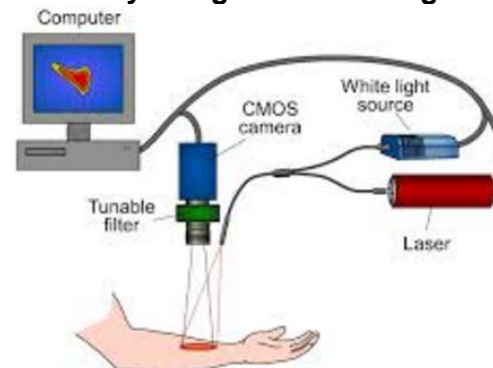
### Noninvasive Intracranial Pressure Estimation Utilizing Transcranial Doppler



### Brain-Computer Interface via Electroencephalogram



### Laser Speckle Imaging for Physiological Monitoring



## EEG Monitoring

- Automatic spelling for locked-in syndrome patients
- Event-related potential analysis for early diagnosis of Alzheimer's disease
- Transcranial direct current stimulation (tDCS) for cognitive function improvement
- Pattern recognition machine learning algorithm development
- Low resolution electromagnetic tomography (LORETA) analysis

