

Medical Electronics - autumn 2019/20

Lecture schedule		
Date	Lecturer	Topic
4.10.2019		
	prof. Paweł Strumiłło	Introduction to biomedical engineering
11.10.2019	prof Paweł Strumiłło	ECG
18.10.2019		
No lecture		
No lecture		
25.10.2019		
dr Aleksandra Królak		
Biomedical systems, transducers, amplifiers		
Artifacts and noise		
1.11.2019		
No lecture	No lecture	
8.11.2019		
start at 12:00		
dr Robert Strąkowski		
Thermovision		
15.11.2019	prof. Andrzej Materka	
Medical Imaging I		
22.11.2019	prof. Andrzej Materka	Medical Imaging II
29.11.2019	prof. Andrzej Materka	Medical Imaging III

6.12.2019

dr Aleksandra Królak

Lecture cancelled (Dean's hours)

13.12.2019

dr Aleksandra Królak

EMG, EEG, EOG, Telemedicine

20.12.2019

dr Aleksandra Królak

Test

10.01.2020

dr Aleksandra Królak

Test - resit 1

17.01.2020

dr Aleksandra Królak

Test - resit 2

Laboratory/project schedule

Date	Group 1	Group 2
4.10.2019	Laboratory 1	No classes
11.10.2019	Laboratory 2	Laboratory 1
18.10.2019	No classes	Laboratory 2
25.10.2019	Laboratory 3	Laboratory 3
8.11.2019-		
-end of semester	Work on projects	Work on projects

Link: [Course files / Pliki dla przedmiotu](#)

Laboratory files

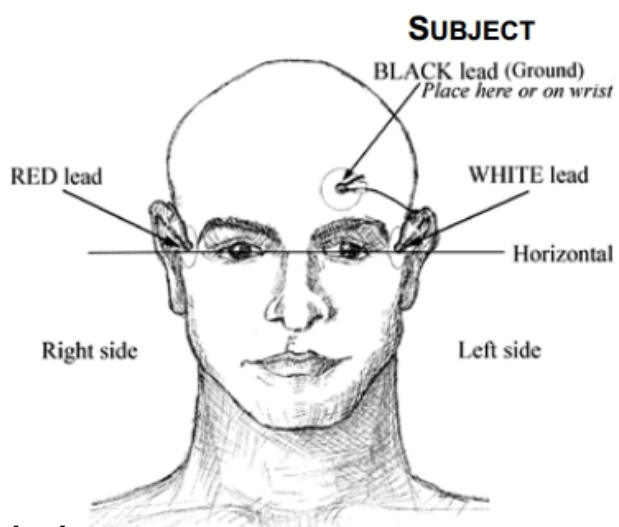
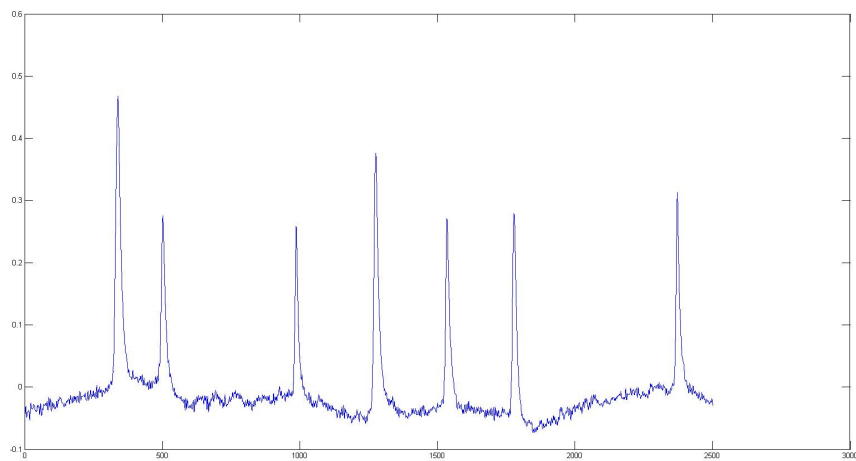
Laboratory 1 - [download](#) Laboratory 2 - [download](#) Laboratory 3 - [download](#) SevSeg
library - [download](#) [download](#)

DHT library -
[download](#)

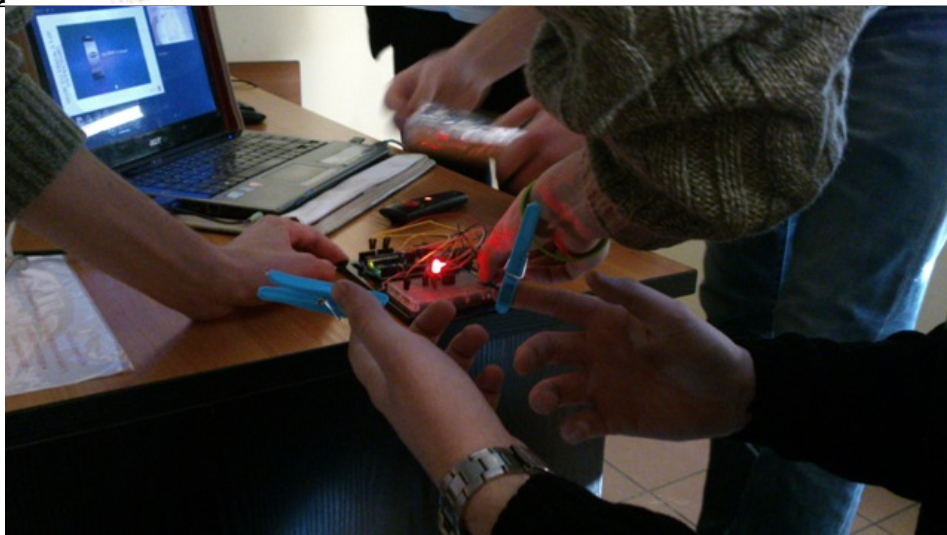
Example projects

Fatigue detection on the basis of eye blink dynamics analysis

Analysis of eye-blink dynamics from EOG measurement in different scenarios generating mental fatigue.

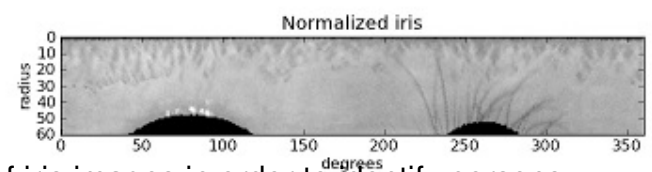
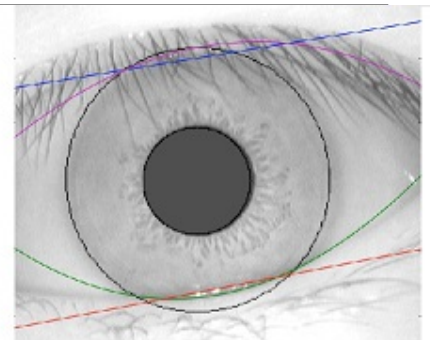


—Lie detector

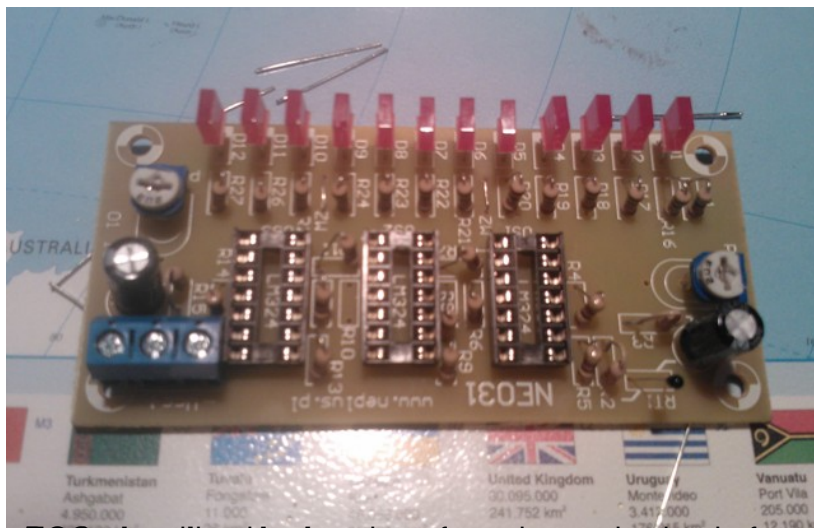




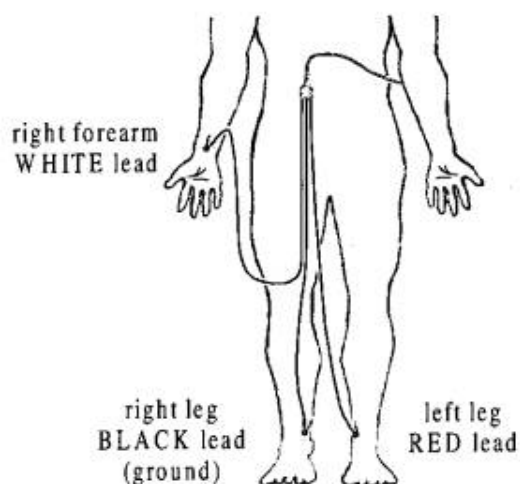
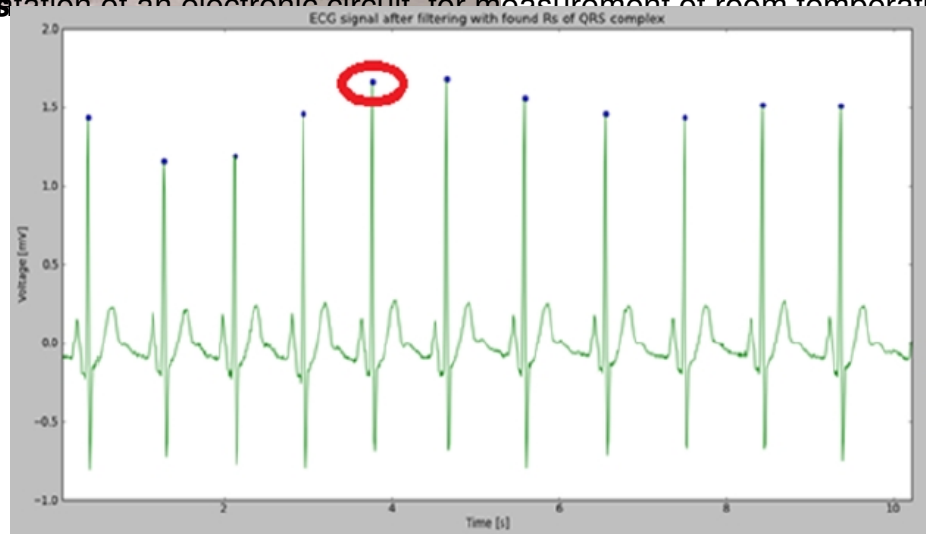
Iris-based person identification



Single image processing methods for pre-processing of iris images in order to identify persons



ECG signal analysis



Registration of ECG signal using Biopac system and implementation of ECG signal processing