

## 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		
<b>start at 12:00</b>		
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](#) [dow](#)

#### DHT library -

[download](#)

#### Example projects

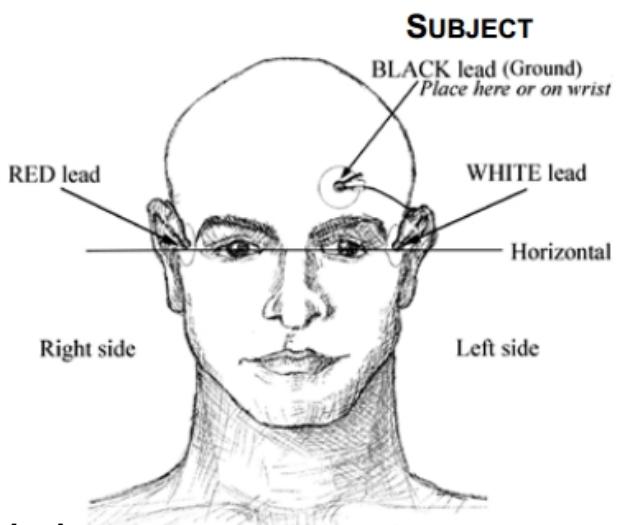
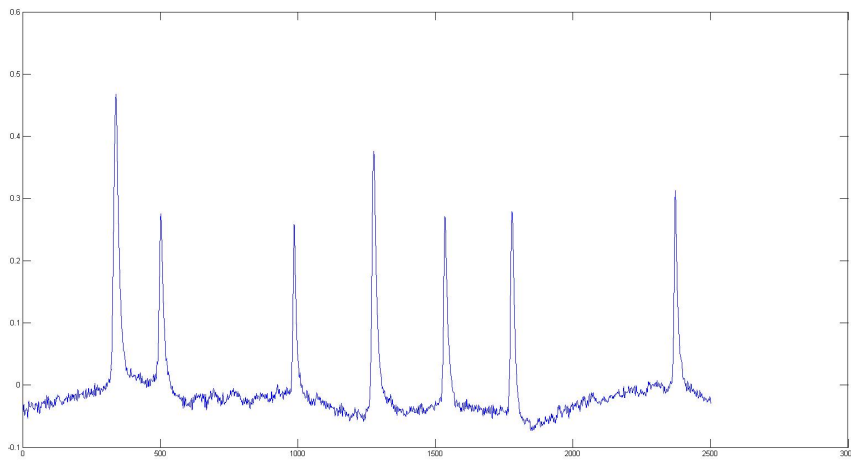
### Fatigue detection on the basis of eye blink dynamics analysis

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

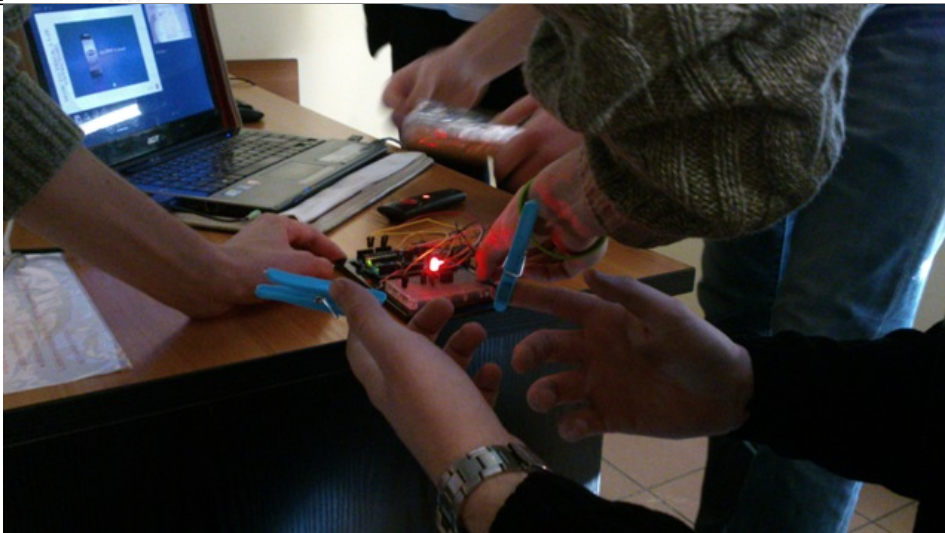
# Medical Electronics

Wpisany przez Aleksandra Królak  
piątek, 12 października 2012 11:44 - Poprawiony czwartek, 05 grudnia 2019 08:50

---



—Lie detector

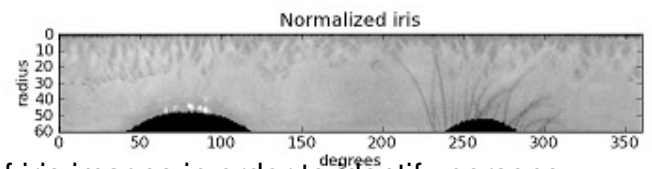
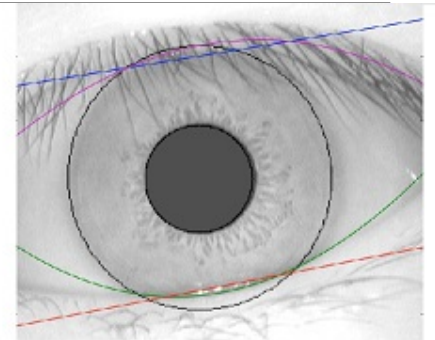




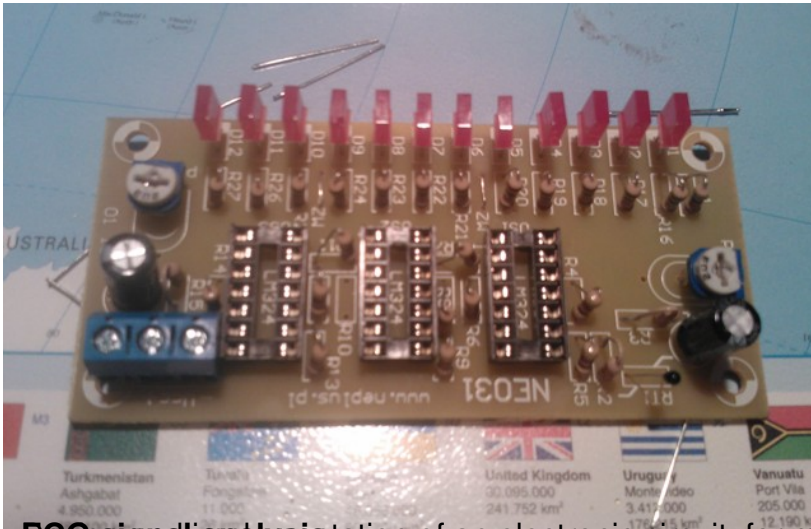
that can be used



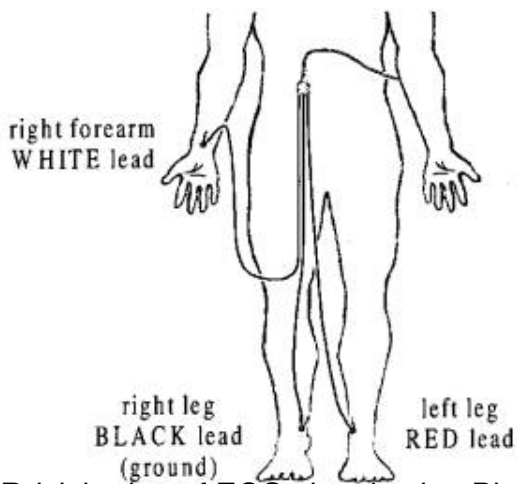
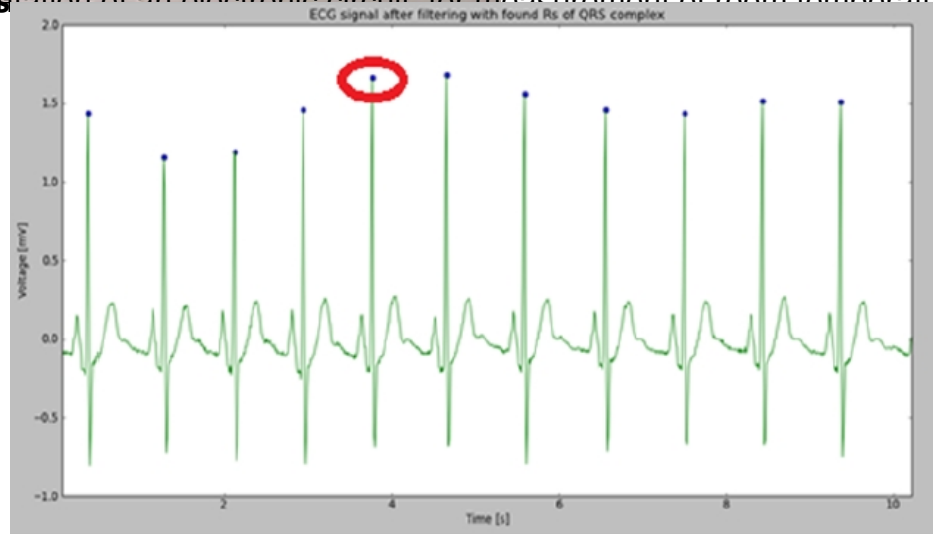
Iris-based person identification



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



EEG signal analysis - Realization of an electronic circuit for measurement of room temperature.



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