



Music player control using EMG signals

- People enjoy music while jogging, reading, waiting for the bus with shopping bags in hand and so on. In these scenarios, it is inconvenient to control the music player with hands. An electromyography (EMG) controlled music player can be helpful as a solution to such problems. In such a system, the facial muscles (e.g. masseter muscle) act as a signal source for controlling. The raw EMG signals will be collected and studied. Different patterns can be derived and mapped with digital signals, which will be used for controlling the music player, such as play, stop, skip and tune the volume. Furthermore, the system can be integrated into a headset, allowing users listening to and controlling the music player through one single device.



Project type	BSc./ MSc. seminar/thesis
Starting date	Summer semester 2016
Work distribution	40% experiments, 20% theory, 40% programming
Useful knowledge	<ul style="list-style-type: none">• Basic knowledge of machine learning• Attended course Mustererkennung und Zeitreihenanalyse• Proficient with Matlab/python
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