



UNIVERSITA' CAMPUS BIO-MEDICO DI ROMA

Facoltà Dipartimentale di Ingegneria Biomedica

# A Dry ECG Recording System for the Ambulatory Monitoring of the Human Electrocardiogram

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## **ABSTRACT:**

Currently, gel-less electrodes are primarily employed in heart-rate monitors used largely in the field of sports and athletics. These devices only measure and display the value of the wearer's heart-rate on a beat-to-beat basis. This information is largely used in an athletic training capacity rather than any clinical role. While these devices detect the ECG signal they do not preserve the morphology or profile of the signal which carries the clinical information on the state of the heart and cardiovascular system. This makes it easier to detect only the presence of the heartbeat and to suppress interference and artefactual signals which are generated by the movement and vigorous activity of the wearer of the device. Electrical characterization of the electrodes will provide knowledge not already available, which is essential for the correct interfacing of the electrodes with the recording amplifier. The performance requirements of the recording amplifier and conditioning circuitry in a dry electrode scenario is an order of magnitude more stringent than is the case using standard adhesive electrodes. This seminar will provide the suggestions and recommendations in developing dry ECG recording system for ambulatory monitoring of the human electrocardiogram.



**Lunedì 17 giugno 2019 - ore 10:00 - 11:00**

**Aula R4 - PRABB**

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# Seminario