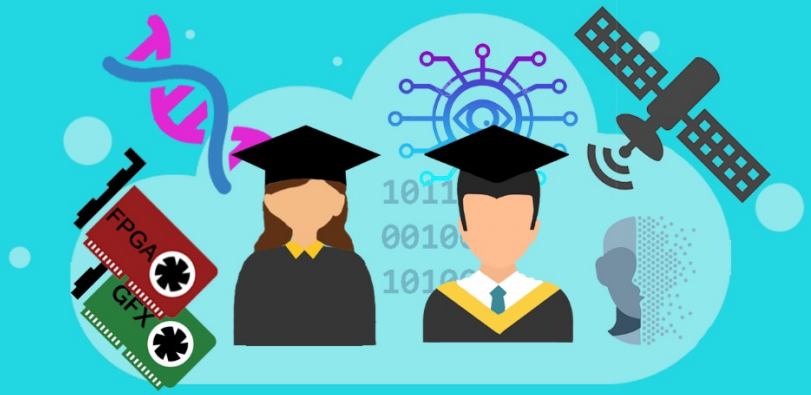


# Diploma Thesis

Microprocessors and  
Digital Systems  
Laboratory



## Biomedical and Healthcare Applications for Internet of Things

Biomedical and healthcare applications are a growing and emerging field of research with a high potential for improving patient's life and the quality of healthcare. While technology can't stop the population from aging or eradicate chronic diseases at once, it can at least make healthcare easier in terms of accessibility, while the right diagnosis can also optimize patients everyday life and the need of hospitalization. A new paradigm, known as Internet of Things (IoT), has an extensive applicability in numerous areas, including healthcare and it is a highly increasing topic of research both in industrial and in academic community. The full application of this paradigm in healthcare area is a mutual hope because it allows medical centers to function more competently and patients to obtain better treatment.



The research aspects of the existing and proposed biomedical and healthcare applications on IoT pose numerous research challenges, such as the criticality of the results per application, real-time processing, safety, security and data anonymity. Towards this direction, our lab will support a number of diploma theses which will aim at analyzing existing state-of-the-art IoT based architectures and proposing solutions for the identified research gaps

**Prerequisites:** C/C++, Python, Bash, Linux

### CONTACT INFORMATION

Manolis Katsaragakis Ph.D. : ([mkatsaragakis@microlab.ntua.gr](mailto:mkatsaragakis@microlab.ntua.gr))

Dimosthenis Masouros Ph.D. : ([demo.masouros@microlab.ntua.gr](mailto:demo.masouros@microlab.ntua.gr))

Prof. Dimitrios Soudris: ([dsoudris@microlab.ntua.gr](mailto:dsoudris@microlab.ntua.gr))