

**A POST DOC POSITION, A PhD STUDENT SCHOLARSHIP, AND AN MSc STUDENT SCHOLARSHIP ARE AVAILABLE FOR TUBITAK 1003 PROJECT**

A Post-Doc, a PhD student and MSc Student will be funded from the TUBITAK project entitled “Microwave imaging-guided portable hyperthermia device for breast cancer treatment.” In this projects, we aim to build a prototype system that can heat the breast tissue via mild hyperthermia to aid the chemotherapy treatments. The fellow is expected to carry out analytical and numerical analysis of electromagnetic wave interaction with the breast tissue and carry out variety of experiments. To do so, the fellow will perform a selection of the following tasks based on the progress of the project,

- Carry out electromagnetic field analysis analytically (using methods such as MOM),
- Carry out variety of simulations in CST and HFSS
- Calculate the SAR in the breast volume
- Calculate the heat distribution in the breast volume,
- Work on radiometric approaches in temperature sensing,
- Antenna design for hyperthermia, imaging and sensing purposes,
- Realizing the simulated system with experiments,

The fellow is expected to have the following qualifications,

- A strong background in electromagnetics (preferably completed the candidacy exam and took the offered electromagnetics-related courses)
- A strong command in English language able to quickly read and write articles,
- A strong background on MATLAB, CST or HFSS,
- An academic publication background is preferred,
- Willing to work in a team towards satisfying the goals of the project,
- Excellent attention to detail and quality.

Please send [tuba.yilmaz@itu.edu.tr](mailto:tuba.yilmaz@itu.edu.tr) your CV along with a short cover letter explaining your background and why your background fits the scope of the project.