

Prof. Uma Maheswari Rajagopalan

Laboratory name

Radiation Transfer Laboratory

Keyword

Light Scattering, Optical Coherence Tomography (OCT), Photoacoustic Tomography (PAT), Optical Technology for Biology, Optical Technology for Environmental assessment in agriculture, lasers speckles in life science, survey of microplastics in ocean, effect of microplastics on plants and microorganisms.

Tasks in the laboratory

Development of a combined OCT and PAT system first with phantoms and then switch to in vitro life samples possibly in vivo samples

Program period

More than 2 months

Eligibility-school year

- Third year undergraduate
- Fourth year or higher undergraduate
- First year master degree
- Second year or higher master degree
- First year doctoral degree
- Second year doctoral degree
- Third year or higher doctoral degree

Eligibility-student's major/fields

- Mechanical
- Chemistry
- Material
- Electrical
- Electronic
- Computer Science
- Lifescience
- Mathematical
- Civil Engineering
- Architecture
- Engineering and design

Required skills

Interest in biology and development of technology for investigating biological samples

Desired skills (Preferred skills)

Programming skills and some basic knowledge of optics are welcomed

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