DIGITAL IMAGE ANALYSIS FOR SCIENTIFIC APPLICATIONS

5 CREDITS

LEARNING OUTCOMES

To pass, the student should be able to

- Explain fundamental notions on computerized image analysis, such as digitizing, image enhancement, segmentation and classification of features.
- Describe fundamental notions on research ethics and methodology in image analysis.
- Use software for solving image analysis problems.
- Analyze and outline the steps necessary to solve a realistic image analysis problem in the student's own research area.
- Understand when image analysis can be a solution to a specific problem and when it will probably fail.

CONTENT

Digitization, Filtering, Segmentation, Feature extraction, Shape description, Classification, Color, Compression, Research ethics in image analysis, Research methodology in image analysis.

INSTRUCTIONS

Lectures, laboratory work, projects.

ASSESSMENT

Approved laboratory work. Written exam.