

Courses on (Bio)Image Analysis

Course Overview

Images are wealth of information and image processing is the skill that becomes mandatory in modern life sciences training. In the field of life sciences, Bioimage analysis is a crucial tool from the basic Biology to Biomedical research. Image quantification is critical with the increase in the complexity of the imaging data and with advancements in the imaging platforms and technology. To extract the meaningful and quantitative information from the image data, it is mandatory to have the skill and understand the tools to do the same. In this courses training is provided to the life science researcher/students to extracting the quantitative information from the acquired images from the microscopes.

BioImage Analysis training are offered at two levels i.e. Basic and Advanced

Basic course provides basics of image processing & Digital images, how image is generated, bioimage analysis, various tools, Segmentation methods, basic batch processing, High throughput image processing with the complete hands on experience. In this course, the participants will be introduced to two software ImageJ/Fiji & CellProfiler.

Advanced course provides 3D image quantification, advanced segmentation techniques, scripting for bioimage analysis and automated image processing with the complete hands on experience.

Course Outcome

- ◆ Practical Knowledge on Quantitative Image Processing
- ◆ Appropriate choice of software tools
- ◆ Building optimized Automated Image Analysis workflow
- ◆ High Content Image Analysis
- ◆ 3D Quantitative Image Processing

Target Audience

Post graduate students (MSc/M.Tech, preferably from life science), Ph.D students, Post-docs, clinicians and Faculties, those who need to analyse their own image data. Prior programming knowledge not required. [For Advanced course, basic knowledge on Image processing is preferred]

List of BioImage Analysis course offered:

1. Basic Hands-on course on BioImage Analysis (online and in-person)
2. Online Hands-on Advanced course on BioImage Analysis (online and in-person)
3. Customised courses and training on BioImage Analysis