Principles and Applications of Wide-field and Confocal Microscopy/ Image Analysis and Live Cell Imaging

University of Kerala, Department of Zoology
27th February to 4th March 2017

Overview

GIAN course in University of Kerala is designed to enable the participants to make an overview about the basics and history of microscopy and its applications. It introduces the most modern trends and technologies in research based microscopy, and helps to impart awareness about the job and entrepreneurship opportunities in the field of microscopy and imaging.

The course is organized in the same format of microscopy workshops in USA. There will be an explanatory session, about the topic for the particular day, followed by a detailed practical session, which is conducted at well equipped laboratory setting. Here, participants get chance to be well trained in the latest imaging techniques. For the maximum effectiveness and productivity of the course, participants are encouraged to bring samples and specimen from their own laboratories.

<table>
<thead>
<tr>
<th>Modules</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb 27th</td>
<td>History, Latest Trends in Microscopy &amp; Imaging. Image Acquisition Using Bright Field, Phase Contrast &amp; DIC</td>
</tr>
<tr>
<td>Feb 28th</td>
<td>Fluorescence Microscopy, Working of Digital Camera and Anti body Staining Techniques</td>
</tr>
<tr>
<td>Mar 01st</td>
<td>Live Cell Imaging and Working of GFP Proteins</td>
</tr>
<tr>
<td>Mar 02nd</td>
<td>Confocal Microscopy</td>
</tr>
<tr>
<td>Mar 03rd</td>
<td>SEM and TEM Techniques - Discussion and Demonstration</td>
</tr>
<tr>
<td>Mar 04th</td>
<td>Job opportunities in Microscopy and Imaging</td>
</tr>
</tbody>
</table>

Course Suits you

- If you are a research scholar / student making use of microscopic techniques in deciphering biological samples.
- If you are a professional already making use of microscopy but would like to brush up on the fundamentals sharing its newer trends and development.
- If you use microscopic images in your research / teaching and would like to acquire in depth knowledge on the interplay of life processes.

Total number of Participants : 30*
The Participation fees for taking the course is as follows:
Participants from abroad : US $300
Industry/Research Organizations:
Any of two modules: Rs. 1500/- All modules: Rs. 3000/-
All modules
Academic Institutions : Rs. 2500/-
Students : Rs. 1500/-
Last Date of Registration : 5th February 2017
*Participants Will Be Selected Through Screening

The above fee include all instructional materials, computer use for tutorials etc. The participants will be provided with accommodation on payment basis.

Account Details : Coordinator GIAN Course
Account No. : 67376976689
IFSC CODE : SBTR0000043

The Faculty

Dr. Scott J. Howell attended Youngstown State University where he obtained a BS and MS in biology. During the MS, he performed a lot of optical microscopy. Next he obtained his Ph.D. in 1998 from NEUOCOM/Kent State University in Biomedical Science. In 2003, he became the imaging rep for Fryer Company, a Nikon Microscope dealer & during that time he learned a great deal in industrial imaging. For the last 11 years he has been at Case Western Reserve University. He has been conducting microscopy based experiments (including live cell), training users on the correct use of microscopes and how to conduct image analysis.

The Co-ordinator

Dr. Sreejith.P
Research area includes Cutaneous, Cancer and Ayurveda Biology. He attended the Post-Doctoral Fellowship at Department of Cancer Biology, Lerner Research Institute, Cleveland Clinic, USA and has learned hair biology at Dermatology Department, Case Western Reserve University, USA. He has successfully completed the short-term fellowship from University of Illinois College of Medicine at Peoria, Chicago. He had been a FLAIR International Fellow and attended internship and academic staff training program at the University of Roehampton, London in conjunction with FLAIR program, Kerala. He was also selected for DHR, ICMR international fellowship in University of Manchester, UK. He has access to the funds provided by UGC, KSCSTE, and the University of Kerala. He is well trained in SEM, TEM, Two-Photon Microscopy and Confocal Microscopy.

FOR COURSE DETAILS CONTACT -
Sreejith Parameswaran Panicker, Ph.D., PGDSMC
Assistant Professor, Dept. of Zoology, University of Kerala,
Thiruvananthapuram-695 581
Mob: +91 9496793794,
Email ID: giancoursemicroscopyuk@gmail.com
p.sreejith@gmail.com, psreejith@keraluniversity.ac.in.