HANDS-ON WORKSHOP ON MICROSCOPY and IMAGE ANALYSIS

25 – 27 NOVEMBER 2019

SREE CHITRA TIRUNAL INSTITUTE FOR MEDICAL SCIENCES AND TECHNOLOGY (AN INSTITUTION OF NATIONAL IMPORTANCE), THIRUVANANTHAPURAM, KERALA 695012



About the workshop

Microscopy based imaging is a key aspect of routine material analysis or biological studies. With advances in microscopy and software tools, image processing & analysis becomes inevitable in modern life or materials science research. This workshop enables the participants to understand imaging & transform images into meaningful data sets.

About SCTIMST

SCTIMST is an Institution of National Importance under Dept. of Science & Technology, Govt. of India. The institute has the status of a university & offers excellent research & training facilities. It has three wings: tertiary referral super specialty hospital, Bio-Medical Technology Wing & Achutha Menon Centre for Health Science Studies.

Topics to be covered

- Concepts in microscopy, from basics to advanced, including confocal, electron and raman microscopy
- Image J based processing of images for qualitative improvement
- Image J based analysis of images for obtaining quantitiative data set
- Other software based processing of images for enhancing the image quality
- Presentation of figures for publications as per journal requirements
- Facility visit and live demonstration of microscopes, such as confocal laser scanning microscope, confocal raman microscope, scanning as well as transmission electron microscopes.



Who can attend

Masters / PhD students, project/ technical staff, post-docs & young faculty

Fees & registration

MSc/ MPhil/ ME/ MTech/ MPharm/ PhD students/ project staff: Rs. 750/-, Tech. staff/ postdocs & faculty: Rs. 1500/-

Applications are open up to 15 Nov 2019.

No. of seats: 25 (allotted on first cum first basis, preferance will be given to those who use/intend to use microscopy and image analysis in their routine work).

Workshop venue

Biomedical Technology Wing, SCTIMST, Satelmond Palace, Poojapura, Thiruvananthapuram, Kerala 695012

Travel & stay

Participants will have to make their own travel arrangements. On campus guest house stay may be provided to out-station participants at a nominal price.

Key contacts

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ORGANIZING COMMITTEE

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Dr. Anugya Bhatt, Scientist-E and SIC, Div. of Thrombosis Research, BMT wing, SCTIMST Trivandrum

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Food & Accommodation

Dr. Renjith P. Nair, Scientist-C, Div. of Thrombosis Research, BMT wing, SCTIMST Trivandrum

Dr. Senthil Kumar M, Ramalingaswamy Fellow, Div. of Tissue Culture, BMT wing, SCTIMST Trivandrum

Mrs. Usha Vasudevan, Scientific Officer, Div. of Tissue Culture, BMT wing, SCTIMST Trivandrum

Ms. Shilpa Ajit, Project Staff, Div. of Tissue Culture, BMT wing, SCTIMST Trivandrum

Registration

Dr. Remya NS, Scientist-C, Div. of Toxicology, BMT wing, SCTIMST Trivandrum

Mrs. Deepa K Raj, Technical Assistant, Div. of Tissue Culture, BMT wing, SCTIMST Trivandrum

Ms. Aswathy MR, Project Staff, Div. of Tissue Culture, BMT wing, SCTIMST Trivandrum

Ms. Anupama SJ, PhD Scholar, Div. of Tissue Culture, BMT wing, SCTIMST Trivandrum

Event Management

Dr. Praveen KS, Ramanujan Fellow, Div. of Tissue Culture, BMT wing, SCTIMST Trivandrum

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 $Mr.\ Roopesh\ R.\ Pai,\ PhD Scholar,\ Div. of Tissue Culture, BMT wing, SCTIMST Trivandrum$

TENTATIVE SCHEULDE

Day 1

- Registration and Inaugration
- Lecture on Understanding Microscopy Language
- Lecture on Insights into Confocal Microscopy
- Lecture on Insights into Confocal Raman Microscopy
- Hands on session on Image Processing and Analysis by Image J – 1
- Hands on session on Image Processing by Other Software – 1

Day 2

- Lecture on Microscopy in Biomedical Research
- Lecture on Insights into Electron Microscopy
- Hands on session on Image Processing by Other Software – 2
- Hands on session on Image Processing and Analysis by Image J – 2
- Lab visits: Conventional Microscopes, Transmission and Scanning Electron Microscopes, Confocal Raman Microscopes.

Day 3

- Lecture on Histology and Histo-Morphometry Analysis
- Hands on session on Image Processing by Other Software – 3
- Hands on session on Image Processing by Other Software – 4
- Hands on session on Image Processing and Analysis by Image J – 3
- Hands on session on Image Processing for Presentation in Publications
- Concluding session

*Note: Since the workshop involves extensive hands on training, all the participants must bring their personal laptops. Softwares, practice images and other necessary details will be given to the partcipants during the workshop.