

UGC-Networking Resource Centre
Thirteenth Teacher/Researcher Training Workshop on
Basic Confocal Microscopy
at
Indian Institute of Science

Applications from faculty members from colleges and university departments and affiliated institutions are invited for the **Thirteenth Workshop on 'Basic Confocal Microscopy'** being held during **27 December 2015 to 6 January 2016** at Indian Institute of Science. The Bio-imaging facility of the Division of Biological Sciences, IISc is conducting a workshop on basic confocal microscopy, which will provide a solid background on the use of light microscopy, especially confocal microscopy as a tool to study cell and molecular biology. The workshop consists of lectures that will provide theoretical understanding in various aspects of microscopy, and lab sessions for participants to get hands-on experience on sample preparation and image acquisition on confocal microscopy. The workshop covers historical perspective of microscopy; concepts of image formation in the light microscope, resolution and diffraction, principles of fluorescence microscopy, fluorochromes, resolution vs confocality, confocal microscope design, choice of objective/pinhole concept/lasers/dichroics and filters/photo-bleaching, sample preparation, concepts of immuno-fluorescence/signal and noise/spectral spill over and oversampling. The Bio-imaging facility will provide access to various optical microscopy platforms starting from fluorescence microscopy, live cell imaging and conventional confocal microscopy, as well as the super-resolution microscope Zeiss LSM 880 with Airyscan. Super resolution microscopy with enhanced resolution either by PSF modification or by precise localization of single molecules will also be discussed by experts in the field. The course is designed for beginners and intermediate users of confocal microscopy.

Applicants below 40 years, who are engaged in teaching and research in microscopy and extensive use of microscopy techniques in research are encouraged to apply. A brief bio-data including a paragraph on current research being carried out and list of publications if any should be sent to **The Coordinator**, UGC Networking Centre, by e-mail to the address: ugc-nrc-dbs@mcbl.iisc.ernet.in. No specific format is required for applying. Since the number of seats is limited, preference will be given to early to mid-career research-oriented university and college teachers, professionals and a few registered Ph.D. students engaged in research using confocal and fluorescence microscopy techniques. Application should include approval from appropriate authority for attending the workshop without which, the application will not be considered. Please note that candidates pursuing M.Sc. degree or working temporarily in projects are not eligible.

Boarding and lodging will be arranged free of cost at the Institute, and travel expenses by train according to the institute guidelines will be reimbursed by the UGC-NRC. For more information, you are advised to visit the UGC Networking Centre website at <http://mcbl.iisc.ernet.in/UGC/>. You may contact us at the address **Prof. C. Durga Rao**, Coordinator, UGC-NRC-DBS, Department of Microbiology and Cell Biology, Indian Institute of Science, Bengaluru 560 012, and send applications to The Coordinator at the e-mail address: ugc-nrc-dbs@mcbl.iisc.ernet.in. The last date for receiving applications is **8 October 2015**.