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Department of Electrical Engineering  
**Indian Institute of Technology, Madras**  
 I.I.T.P.O., MADRAS – 600 036.

Ref. No.

ELE	DEEA	2019	Stereozoom Microscope with Digital Camera and Data Acquisition Processor
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Date: 11.07.2019

Due Date: 24.07.2019

Under Certificate of posting

To:

Dear Sirs,

1. Quotations are invited in duplicate for the various items shown below/overleaf/enclosed list.
2. The Quotations duly sealed and superscribed on the envelope with the reference no. and due date, should be addressed to the undersigned so as to reach him on or before the due date stipulated above.
3. The Quotations should be valid for sixty days from the due date and period of delivery required should also be clearly indicated.
4. If the item is under DGS & D Rate contract, Rate Contract Number and the price must be mentioned. It may also please be indicated whether the supply can be made direct to us at the Rate Contract price. If so, please send copy of the R.C. (Please note that we are not Direct Demanding Officers).
5. Relevant literature pertaining to the items quoted with full specifications (and drawing, if any) should be sent along with the Quotations, wherever applicable.
6. Local Firms: Quotations should be for free delivery to this Institute. If Quotations are for Ex-Godown, delivery charges should be indicated separately.
7. Firms outside Chennai: Quotations should be F.O.R Chennai. If F.O.R consignor station, freight charge by passenger train / lorry transport must be indicated. If Ex-Godown, packing, forwarding and freight charges must be indicated.
8. The rate of Sales / General Taxes and the percentage of such other taxes legally leviable and intended to be claimed should be distinctly shown along with the price quoted. Where this is not done, claim for Sales / General Taxes will be admitted at any stage and on any ground whatsoever. The taxes leviable should take into consideration that we are entitled to have Concessional Sales Tax applicable to non-Government Educational Institutions run with no profit motive for which a commission Sales Tax certificates will be issued at the time of final settlement of the bill.
9. Goods should be supplied carriage paid and insured.
10. Goods shall not be supplied without an official supply order.
11. Payment: Every attempt will be made to make payment within 30 days from the date of receipt of bill / acceptance of goods, whichever is later.

*Specification enclosed and quotation to be sent to the below address:*

*Dr. Deepa Venkitesh  
 Associate Professor,  
 Department of Electrical Engineering,  
 Indian Institute of Technology, Madras,  
 Chennai – 600 036.*

Yours faithfully,

*Deepa Venkitesh*  
 11/7/19.

HEAD / Project Co-Ordinator

# Specifications for Highend Stereozoom Microscope with Digital Camera and Data Acquisition Processor

## Stereo Microscope

The Zoom ratio should be 1: 8

The Magnification should be from 10 x to -80 x with 1x objective and 10 x Eyepiece

1x objective should have a working distance of 75 mm

The maximum resolution should be 600 lp/mm

The system with 1x objective having an object field of 23 mm to 2.9 mm

The entire optical system should be Apochromatic with Greenough design

The binocular tube should have an interpupillary distance of 50 mm to 76 mm

The 10x eyepiece should have field diameter of 23 mm with diopter

Correction for Spectacle wearers

The focus should remain constant through out the zoom range (Parfocal)

Universal column stand with vertical column of 450 mm or above

Horizontal arm with 590 mm or above with ball bearings for smooth positioning, locking ring, grease free run, adjustable stop for respective positioning and adjustable break

LED light source with 50,000 hours life, color temperature of daylight quality with Dual

Gooseneck illumination with focal lenses should be supplied

## Digital Camera

Fast full color live image capture in real time

5 Mega pixels standard resolution (2592 x 1944 Mega Pixel)

Pixel size 2.35  $\mu\text{m}$  x 2.35  $\mu\text{m}$

Live image can be viewed either on PC or HD Monitor

Both color and Grey scale image is should be available

Exposure time 0.5 ms to 500 ms

24 bit Color depth

USB2 interface to connect to PC/Laptop

Live image on PC Monitor or Laptop or HD Monitor

The software for control of the camera functions and calibration of the microscope

*Deepalankrish*  
11/2/19.