Centre for Atmospheric & Oceanic Sciences
Indian Institute of Science, Bangalore
Phone: +91-80-2293 3070 / 2293 2505
Fax: +91-80-2360 0865
E-mail: satheesh@caos.iisc.ernet.in

Dr. S.K. Satheesh
Professor

Dear Sir,

Subject: Request for quotation for Micro Pulse Lidar instrument for measuring vertical distribution of aerosols.

Bid Notification Number: CAOS/Tender/IITM03/2016/1

QUOTATIONS SHOULD BE SUBMITTED IN TWO SEPARATE SEALED COVERS (TECHNICAL & COMMERCIAL BID) AND THE PACKAGE SUPERSCRIBED WITH THE ENQUIRY NUMBER AND SHOULD BE SUBMITTED WITHIN DUE DATE. QUOTATIONS VIA FAX AND EMAIL ARE NOT ACCEPTABLE.

INTRODUCTION:

Indian Institute of Science (IISc) is located in the city limits of Bengaluru City Corporation. There are about 45 departments and centres in IISc that work on a wide range of scientific and technological areas of research. Centre for Atmospheric and Oceanic Sciences (CAOS) is one of the centres in IISc and our research addresses a wide variety of topics within the broad realm of atmosphere-ocean-climate science. One of the research theme of CAOS is impact of atmospheric aerosols on climate. Aerosols are suspended particulates in the atmosphere and have implications for climate through different mechanisms. Several studies have suggested that aerosols may be mitigating global warming by increasing the planetary albedo, although the sign and magnitude of aerosol effects on climate are still uncertain as outlined in the International Panel of Climate Change (IPCC) reports. Given this background, it is imperative that detailed aerosol measurements of aerosols are performed carefully to answer crucial questions related to climate change.

The instrument intended in this tender is meant for making detailed characterization of aerosol vertical distribution in real-time.

The Micropulse Lidar (MPL) is a ground-based optical remote sensing system designed primarily to determine the altitude profile of aerosols. The physical principle is the same as for radar. Pulses of energy are transmitted into the atmosphere; the energy scattered back to the transceiver is collected and measured as a time-resolved signal. From the time delay between each outgoing transmitted pulse and the backscattered signal, the distance to the scatterer is inferred. Besides real-time detection of aerosols, post-processing of the lidar return can also characterize the extent and properties of clouds.

SPECIFICATIONS:

Wavelength: Visible range; between 500 and 600 nm preferred.

Pulse repetition frequency (PRF): 2 KHz or more.

Minimum altitude range: 20 kms

Altitude resolution: 30 meters or higher.

Whether-proof enclosure for lidar: Preferred if can be provided.

Polarization: Co-polarized and cross-polarized backscatter measurements for depolarization characteristics.

BRIEF SCOPE OF THE PROJECT:

1. Supply of the instrument and accessories.
2. Installation on site.
3. Complete maintenance for three years.

ELEGIBILITY CRITERIA:

Following are the minimum qualifying requirements for the firms, who intend to express their interest.

1. The bidder shall be an established agency having adequate experience in supply, installation and maintenance of similar instruments in the last three years (evidence supported by copies of purchase orders).
2. The bidder should have an annual turnover of not less than 1 Crore in any last three completed financial years.

SELECTION PROCESS:

Step-1: Short listing based on documents submitted by the firm along with the expression of interest, in proof of satisfying the two eligibility criteria given above.

Step-2: Subsequent evaluation of the competency and other technical merits of the product and also the financial capabilities during the purchase committee meeting. Only those firms who satisfy step-1 will be selected for the evaluation process under step-2.

Terms and Conditions:

1. Please arrange to enclose valid Exclusive Dealer/Distributor Certificate.
2. 3 years onsite warranty should be confirmed while quoting the offer.
3. For software items, updates during the warranty period are to be provided without any additional cost to IISc.
4. Supply, Configuration, installation, commissioning, demonstration and training are also the responsibility of the supplier only.
5. Please arrange to send Brochure, literature and Pamphlets of the products quoted.
6. Please arrange to send your Bank details for making E-payment.
7. Offer should be valid for a minimum period of 90 days.
8. Delivery period is to be specified. Delivery in 4 months or less will be given preference.
9. The quotation should be in two separate sealed covers (Technical and Commercial bid). The cover should be submitted to Prof. S.K. Satheesh, CAOS, IISc. The last date for submitting the bid is 29 February 2016.
10. The offer should be valid for a period of at least 90 days from the last date for submission of quotes.

11. Price quoted should be inclusive of all taxes / duties and shown separately. The price quoted should be for delivery of the items to the site and installation at site.

Important Dates:

Date of release of the enquiry: 29 January 2016

Last date for submission of quotes: 29 February 2016

For any clarifications, contact: Prof. S.K. Satheesh, Centre for Atmospheric and Oceanic Sciences, IISc. Tel: 080-22933070; Email: satheesh@caos.iisc.ernet.in