

**Indian Institute of Technology, Kanpur
Department of Aerospace Engineering**

Enquiry No: IIT/AE/FL/2011-12/02

Enquiry Date: 22.2.2012

Closing Date: 15.3.2012

Sealed quotation should reach the undersigned latest by 15th March, 2012.

Description:

The requirement is of a prototype of Glide kit which can be fitted onto a body of cylinder shape (primary body) within certain weight limitation, and is also equipped with RTFDA (Real Time Flight Data Analyzer) that allows controls and guidance to be built in, for the purpose of extending range of delivery of primary body. The prototype should be within 4kg weight and should be electrically propelled.

Following Features/functionality/specification are required.

Less than 4Kg weight

Auto propulsion switch off (user configurable)

Glide to a constant bearing (user configurable)

Glide Ratio <1/5

It should be equipped with RTFDA system which should be capable of

 Providing accurate attitude estimates

 Providing air data measurements (airspeed and altitude)

 Providing wind speed estimate

The following parameters must be available at ground in real time with interfaces for plotting and manipulation, all along the duration of flight.

 Attitude Angles (Desired and Current)

 Heading (Desired and Current)

 Altitude

 GPS co-ordinates

 Descent Rate

 Actuator commands

 Guidance & Control, adherence to a heading with maximization of range

 Real Time Communications with Ground Station

The quotation should be valid for 60 days.

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