

Long Range Surveillance System (LRSE)

INTRODUCTION

Long Range Surveillance Equipment has been developed to meet the surveillance requirement of unattended/ remote sites during the day-time. It has been realized in two entities, observation post & control station. The observation post consists of payload i.e. day camera mounted on pan-tilt unit, digital interface unit, high density battery bank, solar panel for charging the battery bank & wireless trans-receiver. Control unit is kept at control station, which is 15-20 Km apart from the observation post. The control unit provides the payload control and receives the video data through the trans-receiver kept at control station. It is equipped with advance image processing functions such as image enhancement, motion detection etc. IRDE has designed and developed LRSE for High Altitude Remote Border Area.

SPECIFICATIONS

Range Performance

(Detection Range)

Day Camera: 12 Km (Light Vehicle); 10 Km (Gp of Person)

Data & Video Transmission capability

Up to 20 Km over Optical Fiber transmission Cable and
Wireless (LOS)

Environmental

Storage Temperature: - 40° to +55° C

Operating Temperature: - 30°C to + 55°C Applicable JSS

5855-11:2009 (in conjunction with JSS 55555)

FEATURES

Image Processing modules: Image Enhancement, Video Mosaicing, Automatic
change detection with audio alarm

On-Site recording 14 days

TECHNOLOGIES INVOLVED

The development of LRSE involves the development of following technologies –

- Development of Long Range day camera
- Development of change detection unit with HMI such as image enhancement for improved detection & recognition, video mosaicing (Panoramic view), automatic change detection
- Renewable power source
- Development of control unit for monitoring station

All the above technologies were successfully developed at IRDE (DRDO) Dehradun.

Interested industries may write to Director, IRDE, Dehradun at the following address –

1. Director, IRDE
DRDO, Min. of Defence,
Raipur PO
Dehradun – 248008
Fax: 0135-2787161/ 2787128
2. Director, DIITM, DRDO HQ,
Min. of Defence, DRDO Bhawan,
Room No. 447, B Block,
Rajaji Marg, New Delhi - 110011
Fax: 011-23793008
3. **Mr. Sarlesh Yadav, Astt. Director (Technology)**
Phone : 0135-2782383 / +91-9412347028

Kindly give following information.

Appendix G: Format for Seeking Expression of Interest (EOI)

Expression of Interest (EOI) will be sought through notification in all leading National dailies and DI²TM portal of the DRDO website (www.drdo.gov.in/drdo/English/indexCorpDir.jsp?pg=tech_commercialisation.jsp). Following information will generally be sought through the EOI:

- (a) Memorandum and Articles of Association (Should be incorporated as per Indian Companies Act, 1956)
- (b) Certificates of registration as a manufacturing unit, if any.
- (c) Balance Sheet for the preceding three years.
- (d) Income Tax returns for the preceding three year period
- (e) Details of shareholding/ownership pattern especially foreign partners/shareholders, foreign employees, directors, etc. The company must adhere to the prevailing Govt of India policies and regulations on Foreign Direct Investment (FDI)/DIPP norms as applicable.
- (f) Annual budget for R&D during last three years.
- (g) Numbers and details of IPR or patents, etc., held by the company.
- (h) Number of technically or professionally qualified personnel.
- (i) Record of past performance (e.g., Supply orders executed against of Ministry of Defence orders, Public Sectors and Paramilitary Forces, if any).
- (j) Availability of adequate infrastructure (List of machines and their production capacities) and technical expertise.
- (k) List of Testing and Support equipments
- (l) ISO/ ISI certification or any other certification
- (m) Relevant clearances form the authorities/ ministries (if any)
- (n) Capacity and capability to undertake developmental work and to accept attendant financial and commercial risks.
- (o) Capacity/capability to market the product through the marketing network, sales and service network, reliability to maintain confidentiality.