

**GOVERNMENT OF MIZORAM
DIRECTORATE OF DISASTER MANAGEMENT & REHABILITATION**

No.D.19015/1(D)/2017-DTE(DMR)

Dated Aizawl, 8th March , 2018

SHORT QUOTATION NOTICE

Sealed quotations in prescribed format are invited on behalf of the Governor of Mizoram from reputed Authorized Dealer / Re-seller for supply of hardware and software for establishment of Remote Sensing and Geographic Information System (GIS) Lab at State Emergency Operation Centre (SEOC), Directorate of Disaster Management & Rehabilitation , Aizawl , Mizoram. The quotation must be submitted to the Director, Disaster Management & Rehabilitation , Aizawl , Mizoram upto 12:00 (noon) of 13th April , 2018. The quotations shall be opened by Director, Disaster Management & Rehabilitation or his representative on the same day i.e. on 13th April, 2018 at 1:00 pm in the presence of quotationers who wish to be present at the opening of quotations

Tender documents containing detailed terms and conditions may be obtained from the Office of Directorate of Disaster Management & Rehabilitation, Mizoram on the payment of Rs. 50/- during office working hours and also from the website **www.dmr.mizoram.gov.in**.

Sd/-
(ZOSANGLIANA)
Director,
Disaster Management & Rehabilitation
Mizoram ; Aizawl.

**GOVERNMENT OF MIZORAM
DIRECTORATE OF DISASTER MANAGEMENT & REHABILITATION**

No.D.19015/1/2017-DTE(DMR)

Dated Aizawl, the 8th March , 2018.

QUOTATION NOTICE

Sealed quotations in prescribed format are invited on behalf of the Governor of Mizoram from reputed Authorized Dealer / Re-seller for supply of hardware and software of Remote Sensing and Geographic Information System (GIS) Lab for SEOC at Directorate of Disaster Management & Rehabilitation , Aizawl , Mizoram (Details in the enclosure) . The quotation must be submitted to the Director, Disaster Management & Rehabilitation , Aizawl , Mizoram upto 12:00 (noon) of 13th April , 2018 under the terms and conditions laid down below. The quotations shall be opened by Director, Disaster Management & Rehabilitation or his representative on the same day i.e. on 13th April, 2018 at 1:00 pm in the presence of quotationers who wish to be present at the opening of quotations.

TERMS AND CONDITIONS

The following terms and conditions are binding and shall be strictly adhered to :

1. All quotations should be addressed to Director, Disaster Management & Rehabilitation , Aizawl , Mizoram.
2. The quotationers should quote his/her rates both in figures and words, as per specification given in the annexure.
3. The rates should be inclusive of all taxes, GST , duties and other charges.
4. Rates should be quoted F.O.R, Aizawl.
5. The quotationers must be aAuthorized Dealer / Re-seller . Attested Copy of Authorization or Dealership Certificate from manufacturers / company must be submitted
6. Quotations must be accompanied by court Fee Stamp worth of Rs.10.00 for non-tribals.
7. Quotations must be accompanied by Earnest money amounting to 2 % of the quoted amount in the form of Bank Draft / Deposit at Call Receipt from any Nationalised Bank of India duly pledged in favour of Director, Disaster Management & Rehabilitation , Aizawl , Mizoram .
8. The quotationers submitting their quotations should attach a copy of GST clearance certificate in prescribed form . The same if not provided due to pending process of GST have to submit before issue of supply order.
9. The quotationers have to produce literatures / documents specifying details of software ,highlighting the special features of their offer along with the quotation.
10. All pages of quotation papers should be typed written, signed, stamped and dated. Any page or pages not signed, stamped and dated are liable to rejection. Correction, if any, should be initiated, stamped and dated.
11. If any quotationers violates or fails to fulfil any of the clauses, his or her quotation shall be summarily rejected.
12. The successful quotationers whose rates are approved cannot claim supply unless the department is satisfied with his / her performance , financial capabilities and reliability on supply of material / software at short notice.
13. The intending suppliers to execute a formal agreement after selection and before the commencement of supply.
14. No Advance payment shall be made in any case until and unless the supply of items is completed satisfactorily.

15. A successful quotation must be able to supply and install the items / software within a period fixed by the department. If the supply cannot be made within the stipulated time without any intimation, the department has the right to procure the materials / software from any other sources and the difference in price, if any shall be realized from the security deposit of the approved supplier, as mentioned herein, without assigning any reason thereof.
16. Preference will be given to the locally established and Government of Mizoram registered firm / dealer who have office at Aizawl with GIS & Remote Sensing lab set-up with qualified and expertise in the field of GIS and Remote Processing for training and local support.
17. The intended period of completion of the supply , delivery and installation is 6 (six) months.
18. The Department is not bound to accept the lowest quotationer but shall have the right to reject or accept any quotations.
19. The undersigned shall have the power to revoke the contract agreement for unsatisfactory performance and for any other reason at any time during the pendency of the agreement of the contracts.
20. The Department reserves the right to forfeit the whole or part of the security deposit for inadequate or unsatisfactory performance of the firm or breach of any terms and conditions as laid down in the agreement.
21. In the event of any dispute, the legal jurisdiction shall lie in the court of Aizawl only.

Sd/-

(ZOSANGLIANA)

Director
Disaster Management & Rehabilitation
Mizoram :: Aizawl

QUOTATION

| Sl.No. | Item | Quantity |
|--------|---|----------|
| | | |
| 1 | Remote Sensing (Image Processing) Software | 1 |
| 2 | GIS (Geographic Information System) Software. | 1 |
| 3 | Work Station | 1 |
| | | |

1) Technical Specification of the Digital Image Processing Software -1 License – Concurrent user with 1-year warranty

| Sl No. | Specification of the Digital Image Processing Software |
|---------------|---|
| 1 | Should have geographical connectivity of files across multiple views opened in a single UI. |
| 2 | Support for raster formats like XML, ECW, MrSID, img, pix, tiff, jpeg, shp and other image and GIS data formats should be present; |
| 3 | Should have integrated 2D, 3D, and profile viewing of point clouds; extraction of DTM and DSM from point cloud data; RGB-encode, edit, filter, merge, and split point cloud data; |
| 4 | Should support virtual mosaic of imagery; Image stitching utility with seam line and colour correction facility; colour correction facility should have more than one algorithm like image dodging, illumination equalization, colour balancing etc. and should offer automatic and manual mode of correction |
| 5 | Fast Polynomial-rectification of images; single frame Ortho-rectification of images based on orbital push broom and RPC model. |
| 6 | Should have Batch processing facility; Parallel batch processing facility; |
| 7 | Should support different customized band ratio; software should have the facility to modify all indices based on requirement. |
| 8 | Should support creation of rule based classification tree and its execution and material of interest based sub-pixel classification. |
| 9 | Should support graphical spatial modeling using different raster and vector operator in the same graphical user interface |
| 10 | Should have Beta naught, sigma naught, DE speckle and realtime enhancement for RADAR data; real time water mapping from RADAR data and colour coding. |
| 11 | Should support Real time preview and manipulation of geophysical data like: Horizon Azimuth, Horizon Dip, Horizon RTS (Real time shading), Pseudo Color, RGBI Shaded Relief. Dedicated ASTER data processing wizard should be present. |
| 12 | Should be able to detect changes based on probability , zone, addition, subtraction and combination of both. |
| 13 | Should have semiautomatic geo-referencing and edge matching tool for satellite images. |
| 14 | Should have radiometry and algorithm based change detection tool with automatic raster to vector conversion facility. |
| 15 | Should be able to view DTM as 3D surface; Should have drape facility of raster, vector and annotation on 3D surface; should have facility of fly through over 3D. |
| 16 | Should be capable of ortho-rectification of RADAR images and extracting DTM from stereo RADAR imagery. |
| 17 | Software should run on latest OS version on network mode. |

2) Technical Specification of the GIS Software - License – 1 user (concurrent)with 1-year warranty

| Sl No. | Specification of the GIS Software |
|--------|--|
| 1 | The software should have all standard map navigation option, Spatial Bookmarks, Map window tool Tips, Identify Features in the Map, Interactively Measure Distances and Areas, Find Features, Create Hyperlink. Should have support to keep different vector geometries like Line, Point and polygon in a single layer (feature class) |
| 2 | Should have RDBMS Read Write Support for Access, SQL Server, Post GIS and Oracle, without ODBC or intermediate connector/converter File Geodatabase, Shape File and, CAD, KML, GML, MapInfo data format along with OGC data services like WCS, WMS, WFS (Read/Write). |
| 3 | Software should have Classification, Group, Recode, Thiessen, Clump, Hotspot Detection etc. |
| 4 | Vector Feature Editing like Bearing/Bearing Intersection, Delta X Delta Y, Delta X Delta Y From Point, Distance and Direction, Distance and Direction From Point Distance/Distance Intersection, Orthogonal, Distance Along Feature, Constrain by Length, Constrain tangent, Offset, Azimuth etc |
| 5 | Should have Edit Geometry using Move Vertex, Move Vertex by Precision Key-in, Insert New Vertex, Edit Vertex Height, Delete Vertex, Edit a Circle Geometry, Edit an Arc Geometry, Redigitizing Geometry, Constructing a Circular Fillet, Reverse line direction, Proportion Geometry. Should have option for Maintain Coincidence between multiple layers. |
| 6 | Should support all COGO functions. Bulk attribute Update using Expression, Support Queued Edits, Maintain relationships or coincident geometry digitization and editing. |
| 7 | It should have Automatic Validate Geometry and Fix Geometry options along with option for validation of Attribute data. |
| 8 | It should support LRS Precision Location and Dynamic Segmentation |
| 9 | The solution should have option for Attribute Query, Spatial Query, Join, union, Buffer Zone (Merged and Unmerged), Analytical Merge, Geocoding, Analyzing Geometry, Native Query, Functional Attribute, Update the analysis dynamically as data changes for faster QA/QC of Vector data |

| | |
|----|---|
| 10 | <p>The Solution should have option for more than one Layout frame, Grid Display, Grid Snap, Map book generation, Batch Plotting.</p> <p>The Software should able to publish data (Spatial + Attribute) in KML format and open in Google Earth.</p> |
| 11 | <p>Software Should have facility of Corridor planning [shortest path between two or more points based on distance, cost, terrain, or other attributes], best site selection, terrain processing, viewshed, watershed analysis.</p> <p>Surface Interpolation: Proposed software should support Interpolation method like IDW, Ordinary Kriging, Ordinary Kriging Suite, Spline, Triangulation, Density</p> |
| 12 | <p>Generate elevation artifacts from raster based elevation sources, Aspect, Grade, Isolines or Contour, Contour labeling, Curvature, Volume, Viewshed, Insolation, Update Geometry Z Value.</p> <p>Along with Terrain Data Visualization option such as Overlay, Colour Composite, Blending, Shaded Relief and profile generation</p> |
| 13 | <p>Create associations between specific feature classes as well as rules controlling their geometric connectivity and the allowable number of connections (cardinality) for pipeline tracking and management.</p> |
| 14 | <p>Should have facility to access the same data, Symbology, and analyses as in the 2D view or create new 3D representations, Option to toggle between 2D and 3D map windows.</p> <p>Option to view features below the Surface using Subterranean Traversal and also allow toggling the 3D view between above-surface and below- surface.</p> |
| 15 | <p>Should have advanced 3D Visualization option, along with option to fly through a route, either free form or following linear features, edit waypoints, and save as a video file.</p> <p>Should have options to create 3D view sheds, should have dynamic almanac calendar, shadowing option, 3D effects like rain, snow, haze etc for realistic scenario understanding</p> |
| 16 | <p>Should have attribute based Symbology in 3D environment</p> <p>Option to create 3D thematic map using 3D Point and Line Symbology.</p> |
| 17 | <p>Should support following raster data formats like Tiff (including TIFF World), JPEG, IMG, XML, ECW, MrSID, well as streaming image protocol like ECWP and JPIP</p> |
| 18 | <p>Should support direct read of Point cloud (LAS data) data</p> <p>Processing of it for terrain generation</p> <p>Change z-scale and point size, 3D views in Perspective Mode or as a TIN surface</p> |
| 19 | <p>Should support unlimited number of ECW and JPEG2000 and wavelet compression technique.</p> <p>Should support tool for Raster data registration with following functions Automatic geometric correction from valid ephemeris information along with manual georeferencing option - Affine, Polynomial (first to tenth order), Rubber sheeting methods etc.</p> <p>Changing the projections of Raster data</p> |
| 20 | <p>Should have image enhancement capabilities for better visualization of satellite images like Automatic statistics calculation option, Simple brightness/contrast tools, Standard, statistically-based automatic lookup tables (LUTs).</p> |
| 21 | <p>Should support Image Drape tool for creating perspective views</p> |

| | |
|----|--|
| | on platforms supporting OpenGL, Rendering of DEM or any surface information as a 2.5D view Control vertical exaggeration, Specify and save observer position and viewing geometry |
| 22 | Software should run on latest OS version on network mode. |

3) Technical Specification for workstation

| | |
|--------------------|---|
| Computer/Processor | Core i-7 Processor or higher 64-bit Intel 64 (EM64T)/ AMD A8 Processor or Higher, Minimum 3 GHz, 3-MB cache or higher |
| Memory (RAM) | 8 GB or more strongly recommended |
| Disk Space | <ul style="list-style-type: none"> • 20 GB for software and Sample Data • Data storage requirements vary by mapping project1 |
| Operating Systems | <ul style="list-style-type: none"> • Windows® 8 (Standard), Professional and Enterprise (64-bit) • Windows® 8.1 (Standard), Professional and Enterprise (64-bit) • Windows® 10.0 (Standard), Professional and Enterprise (64-bit) • Windows Server® 2008 R2 SP1 (64-bit) • Windows Server® 2012 (64-bit) |
| Software | <ul style="list-style-type: none"> • OpenGL 2.1 or higher (this typically comes with supported graphics cards). • Adobe® Reader® 7 or higher • Internet Explorer® 7 and higher with JavaScript enabled, or Firefox® 3 and higher with JavaScript enabled • Java Runtime 1.7.0.40 (installed automatically) • Python 2.7.3 (32-bit) • Microsoft DirectX® 9c or higher • .NET Framework 4.5 and above • MSXML 6.0 • Microsoft® .NET Framework 4.5 13 • Windows Installer 3.1 or higher • DirectX 9 or higher |
| Graphics Display | Minimum SVGA display with 1024 x 768 resolution; 1280 x |

| | |
|---------------------------|--|
| | 1024 or higher and 32-bit true colour recommended. |
| Recommended Graphic Cards | Mid-level to high-end professional video card with a minimum of 1 GB of dedicated memory and DirectX Version 9 or higher support |
| System Dependencies | Microsoft Primary Interoperability Assemblies 2005 |

Bidder credential:

1. Bidder should provide authorization certificate from OEM for software.
2. Bidder should have expertise in the field of GIS and Image processing for training and local technical support. (Certificate should be provided)
3. Bidder should have local office at Aizawl for quick technical support. (Certificate of registration etc. should be provided).
4. If required department may ask for technical presentation for software.