

## NOTICE INVITING QUOTATION (NIQ)

Date: 22/09/2011

Sealed quotations on company letterhead are invited for the purchase of following item by IIT Delhi confirming to technical specifications and terms and conditions as given below:

### **Technical Specification for the Purchase of Midas GTS Software Geotechnical and Tunnel Analysis System (2D and 3D Finite Element Analysis)**

#### **Description:**

##### Element Library

- Line Type: Truss/Embedded Truss/Beam/Tension Only/Compression Only
- Plane Type: Flat Shells/Plane Stress/Plane Strain/Axisymmetry
- Solid Type: Tetrahedron/Wedge/Hexahedron
- Standard Interface Elements
- Solid-to-Line Interface Elements for 3D Pile Modeling
- 2D and 3D Geogrid Elements

##### Geometry Modeling including Curve, Surface, Solid and Advanced Modeling

##### Mesh Generation including Automatic and User Controlled

##### Material Models

- Isotropic and Transversely Isotropic Linear Elasticity
- Standard Plastic Models (Mohr-Coulomb/Duncan-Chang/Drucker-Prager /Tresca/Von Mises)
- Soft Soil Materials (Cam-Clay, Modified Cam-Clay, Jardine, Strain Softening)
- Advanced soft soil material models (Modified Mohr-Coulomb, Modified Duncan Chang)
- Rock Materials (Hoek-Brown\*, Jointed-Rock)
- Coulomb friction and debonding for interfaces

##### Static Analysis

- Linear/Non-Linear Static Analysis
- Construction Stage Analysis
- Drained/Un-drained Analysis

##### Slope Stability Analysis based on c-f reduction method

##### Post-processing

- Contour and Iso-surface colour Plots, Diagram and Vector Plots
- Clipping, Slicing, Partition Visualization, Animations and Flying View
- Numerical Result Probes, Tags and Tables

##### TGM (Terrain Geometry Maker)

##### Report Generation

##### 3D Tunnel Wizard (A to Z)

##### Lining Analysis

##### Steady-State and Transient Groundwater flow Analysis

Fully-coupled Hydro-mechanical Analysis, Consolidation Analysis  
TGM (Terrain Geometry Maker)  
User Supplied Material Subroutine

**TERMS AND CONDITIONS:**

- ❖ The technical bid with Catalog detail and price bid should be packed and sealed separately. If the technical bid and price bid are in a same envelope, then the bid would be treated as invalid.
- ❖ Cost should be on CIF at IIT Delhi, New Delhi basis. The rate quoted should be inclusive of installation, commissioning, training required and two year of maintenance. Service support should be provided at no additional cost for a period of at least 12 months.
- ❖ IIT Delhi reserves the right to accept or reject any or all quotations without assigning any reason.
- ❖ The training and installation will be done by company engineers
- ❖ Payment will be made after the successful installation and training of IIT Delhi Staff by company engineers
- ❖ Warranty terms must be clearly stated in the bid.
- ❖ The last date for receiving the quotations is October 18, 2011 (5:30 PM).
- ❖ The validity of quotation should be three months.
- ❖ Quotations should be submitted to:

*Bappaditya Manna*

(Dr. Bappaditya Manna)

Convener of PFC

Civil Engineering Department

Block -V- 306/223 (Soil Lab)

Indian Institute of Technology Delhi Hauz Khas, New Delhi-110016

*[Signature]* *[Signature]* *[Signature]* *[Signature]*  
Prof. K. G. Sharma    Dr. R. Ayothiraman    Dr. B. Manna    Dr. T. Chakraborty  
Member                      Member                      Member                      Member