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| **Dr. Sundararajan T** | **Professor & Head** |
| **Professor** | **Department of Mechanical Engineering** |
|  | **Indian Institute of Technology Madras** |
|  | **Chennai-600 036** |

**Form for Inviting Quotations**

**Reference No. MEE/12-13/301/DSTX/TSUN** **Date:** 28-10-2014

**Due Date: 04-11-2014**

**Subject: Procurement of ASAP Pro optical software for Project No: MEE/1213/301/DSTX/TSUN**

Dear Sir,

1. Quotations are invited in **duplicate** for the Procurement of **ASAP Pro software** with atleast 3 years maintenance/technical support and details of software are shown in overleaf.
2. The Quotations **duly sealed and super scribed on the envelope** with the reference No. and due date, should be addressed to the undersigned to reach him on or before the due date stipulated above.
3. The Quotations should be valid for sixty days from the due date and the period of delivery required should also be clearly indicated.
4. If the item is under DGS&D Rate Contract, Rate Contract Number and the price must be mentioned. It may also please be indicated whether the supply can be made direct to us at the Rate Contract price. If so, please send copy of the R. C. (Please note that we are not Direct Demanding Officers).
5. Relevant literature pertaining to the items quoted with full specifications (and drawing, if any) should be sent along with the Quotations, wherever applicable. Samples if called for should be submitted free of charges, and collected back at the supplier’s expenses.
6. **Local Firms**: Quotations should be free delivery to this Institute, if Quotations are for Ex-Godown delivery charges should be indicated separately.
7. **Firms outside Madras**: Quotations should be F.O.B. Madras. If F.O.B. consignor station, freight charges by passenger train / lorry transportmust be indicated.. If Ex-Godown, packing, forwarding and freight charges must be indicated. The following set of documents is required in all cases: a. complete set of Clean Bill of Lading / Airway Bill / Air or surface Parcel Receipt, showing that the goods have been shipped and freight prepaid. b. Insurance Policies / Certificates in duplicate covering Marine Insurance as per Institute Cargo Clauses (All risks) and perils as per Institute Strikes, Riots and Civil Commotion Clauses, War risks as per Institute, Clauses. Cover for CIF value plus 10 percent.
8. The rate of Sales / General Taxes and the percentage of such other taxes legally leviable and intended to be claimed should be distinctly shown along with the price quoted. Where this is not done, no claim for Sales / General Taxes will be admitted at any stage and on any ground whatsoever. **The taxes leviable should take into consideration that we are entitled to have Concessional Sales Tax applicable to non -** **Government Educational Institutions run with no profit motive for which a concessional. Sales Tax Certificate will be issued at the time of final settlement of the bill.**
9. Goods should be supplied carriage paid and insured.
10. Goods shall not be supplied without an official supply order.
11. **Payment**: Every attempt will be made to make payment within 30 days from the date of receipt of bill / acceptance of goods, whichever islater.

Quotation can be sent addressing:

**“Dr. Sundararajan T**

**Professor & Head**

**Department of Mechanical Engineering**

**Indian Institute of Technology, Madras- 600 036”**

**Details of ASAP Pro software**

ASAP is powered by the ASAP non-sequential ray-tracing engine — known for its accuracy and efficiency. Rays can encounter surfaces in any order and any number of times, with automatic ray splitting.

ASAP is used to model complex imaging systems, illumination systems, and light-concentrating devices and to create highly accurate source models using source images, point sources, ray grids, and fans. Model incandescent bulbs, LEDs, CCFLs, and HID arc lamps, or import from the BRO Light Source Library. Perform the analyses necessary to validate your designs without experimental prototyping.

ASAP PRO combines the design power in the standard edition of ASAP with sophisticated features for modeling coherent systems, including Gaussian beam propagation, finite-difference beam-propagation, double-precision ray tracing, and polarization ray tracing.

Key features of ASAP Pro :

* Run ASAP on 64-bit Windows Vista/7 Business and Ultimate Editions
* Model both TIR and scatter at rough surface interfaces
* Define nonlinear system object arrays using the ARRAY command
* Create Abg (linear-shift invariant) and K-Correlation scatter models
* Enhanced Use sources by Bridgelux, Cree, Lumileds, Nichia, and OSRAM
* Enhanced Use the enhanced ZEMAX-to-ASAP translator to create INR files
* Build system models requiring large numbers of objects and sources
* Model optical and mechanical system components
* Model imaging systems, illumination systems, and light-concentrating devices
* Model visible, ultraviolet, and infrared radiation in optical systems
* Model surface (BRDF) and volume scatter (pre-defined or custom)
* Model propagation in optical fibers and fiber coupling
* Model radiometry of complex systems, including radiance
* Visualize, analyze, and monitor light distributions using conformal radiometry
* Model polarization and coherent effects in optical systems
* Characterize liquid crystal materials using the ASAP Liquid Crystal Cell (LCC)
* Define uniaxial materials with the ASAP General Uniaxial Medium (GUM)
* Simulate devices and track polarization information in Stokes-vector mode
* Model components that alter degree and state of polarization as MUELLER devices
* Model display backlight units with polarization recycling
* Render system geometry, raytraces, and light sources
* Propagate and analyze wavefronts using Gaussian-beam decomposition
* Propagate in microstructures using the ASAP beam-propagation method
* Perform double-precision ray traces and analyze individual ray histories
* Perform numerical and graphical CIE/Chromaticity analyses
* Optimize optical systems with the ASAP Optimization interface
* Save, review, and resume optimizations in progress with ASAP .osf files
* Tolerance optical systems in the ASAP Builder interface or scripts
* Import systems from CODE V®, OSLO®, SYNOPSYS™, and ZEMAX®
* Import/export complex vector-field distributions from FDTD Solutions™
* Import measured source data such as Radiant Sources™
* Import/Export Photometric Data in EULUMDAT and IES LM-63-02
* Import data from images using the BRO Digitizer™
* Use SolidWorks® 3D CAD software with ASAP (license optional)
* Write ASAP-specific GTX files from within SolidWorks
* Assign object and layer names in SolidWorks
* Write ASAP-specific IGES files from within Rhinoceros®
* Import/Export IGES files using the ASAP smartIGES™ translator
* Import geometry and optical properties using the XML file format
* Integrate scripts in Python, VBscript, Jscript, and other languages
* Use pre-defined LED, CCFL, incandescent, and arc sources
* Drag-and-drop sources, lenses, glasses, scatter models, and coatings
* Begin your simulation with one of 600+ example files
* Perform distributed processing tasks using the enhanced REMOTE
* Create your own custom workspace within ASAP

Visit http://www.breault.com/software/about-asap