Quotation Notice

OPTO/P-14/2012

Quotations are invited for the following items in the Department of Optoelectronics, University of Kerala, Kariavattom, Thiruvananthapuram.

(A). **Optical Fiber Design software having the following features included:**
1. A versatile and powerful tool that blends numerical mode solvers for fiber modes with calculation models for fiber dispersion, losses and Polarization Mode Dispersion (PMD).
2. Optical fiber mode solver which can find an exact solution based on matching boundary conditions at layer boundaries instead of relying on meshes to approximate the structure.
3. Advanced mode solver which should be useful for multimode fiber calculations, where there are many modes in the spectrum.
4. It should be able to calculate the fields far from the fiber.
5. It should allow users to decompose an arbitrary field into the modes of a multimode fiber.
6. It should be able to calculate the complex coefficients of the modes for the arbitrary field.
7. It should be able to calculate this multimode field after propagating down the fiber by a specified distance.

(B). **An innovative, rapidly evolving, and powerful Optical Communication system design software tool that enables users to perform the following.**
1. To plan, test, and simulate almost every type of optical link in the transmission layer of a broad spectrum of optical networks from LAN, SAN, MAN to ultra-long-haul.
2. It should offer transmission layer optical communication system design and planning from component to system level, and visually presents analysis and scenarios.
3. Its integration with other design tools of industry leading electronic design automation software should be possible.
4. A most comprehensive optical communication design suite for optical system design engineers.
5. It should enable parallel processing using graphical processing units (GPU).
6. It should support the use of GPU cards to accelerate fiber link simulations.

(C). A Software for modelling integrated and fiber optical devices that incorporate optical gratings.
1. It should use the Coupled Mode Theory to model the light and enable analysis and synthesis of gratings.
2. It should be able to simulate a complex grating which is approximated by a sequence of uniform segments, and analyzed by connecting the segments with the well-known Transfer Matrix Method.
3. The designer should get the information needed to test and optimize grating designs.
4. The software should be able to simulate WDM add/drop, narrow and broadband fiber, waveguide filters, Fiber Bragg reflectors, EDFA gain flattening elements,
5. Dispersion compensators for fiber communications, Sideband suppression using grating apodization, Fiber and waveguide sensors and Long Period Gratings with coupling to cladding modes.

The firms who wish to supply the items are requested to submit the quotation in sealed cover to the undersigned on or before 15.12.2012.

03.12.2012

[Signature]

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