

**CALCULATION  
OF PROPAGATION CONSTANTS  
AND MODAL FUNCTIONS IN STEP  
INDEX AND GRADED INDEX SINGLE  
MODE FIBERS USING  
MATLAB**

A Project Report submitted in partial fulfillment of the requirement for the  
Degree of Master of Science in Electronics of the  
Vidyasagar University.

2009

**Project guide:**

**Mr. ASWINI KUMAR MALLICK**

Department of Electronics  
Vidyasagar University

**Submitted By:**

**TILAK NARAYAN GHOSH**

Roll. VU/PG/ELE -IV S No.05

Registration No. 120964 OF 2003-2004



# VIDYASAGAR UNIVERSITY

MIDNAPORE - 721 102, WEST BENGAL

Phone: (03222) 276554, 276555, 276557, 276558, 262297

Fax: (91) (03222) 275329, 264338

e-mail: vidya295@sancharnet.in

## CERTIFICATE

*This is to certify that SRI TILAK NARAYAN GHOSH has carried out his investigation entitled "CALCULATION OF PROPAGATION CONSTANTS AND MODAL FUNCTIONS IN STEP INDEX AND GRADED INDEX SINGLE MODE FIBERS USING MATLAB" during the period from January 2009 to May 2009 under my supervision in partial fulfillment of the requirement for the degree of MASTER OF SCIENCE in ELECTRONICS in VIDYASAGAR UNIVERSITY. During this investigation, he has learned Computer Programming in 'MATLAB' involving numerical algorithm and applied them in his work.*

*Aswini Kumar Mallick*  
.....14.07.2009

(Aswini Kumar Mallick)

Lecturer

Department of Electronics  
Vidyasagar University

Lecturer

Department of Electronics  
Vidyasagar University  
Midnapore-721102