# Design and Development of Optical Fiber Grating Based Sensors for the Determination of Cholesterol

Ph.D Thesis submitted to **Cochin University of Science and Technology** In partial fulfilment of the requirements for the award of the Degree of **Doctor of Philosophy** 

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## Ph.D Thesis in the field of Photonics

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Cover Image: Optical Fiber Grating

**DEDICATED TO MY TEACHERS AND TO MY FAMILY .....** 

### INTERNATIONAL SCHOOL OF PHOTONICS COCHIN UNIVERSITY OF SCIENCE AND TECHNOLOGY COCHIN - 682022, KERALA, INDIA

**Dr. P Radhakrishnan** Emeritus Professor



This is to certify that, the thesis entitled "Design and Development of Optical Fiber Grating Based Sensors for the Determination of Cholesterol" submitted by Mr. Bobby Mathews C, is an authentic record of research work carried out by him under my guidance and supervision in partial fulfilment of the requirement of the degree of Doctor of Philosophy of Cochin University of Science and Technology, under the Faculty of Technology and has not been included in any other thesis submitted previously for the award of any degree.

Kochi - 682022, 15 - 07 - 2017. **Dr. P Radhakrishnan** (Supervising Guide)

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## INTERNATIONAL SCHOOL OF PHOTONICS COCHIN UNIVERSITY OF SCIENCE AND TECHNOLOGY COCHIN - 682022, KERALA, INDIA

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This is to certify that the thesis entitled **"Design and Development** of Optical Fiber Grating Based Sensors for the Determination of Cholesterol" submitted by Mr. Bobby Mathews C, has incorporated all the relevant corrections and modifications suggested by the audience during the pre-synopsis seminar and recommended by the Doctoral Committee.

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## Declaration

I, Bobby Mathews C, do hereby declare that the thesis entitled "Design and Development of Optical Fiber Grating Based Sensors for the Determination of Cholesterol" is a genuine record of research work done by me under the supervision of Dr. P Radhakrishnan, Emeritus Professor, International School of Photonics, Cochin University of Science and Technology, Kochi–22, India and it has not been included in any other thesis submitted previously for the award of any degree.

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**Bobby Mathews C** 

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