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SREE MOOKAMBIKA INSTITUTE OF DENTAL SCIENCES

PADANILAM, KULASEKHARAM, K.K.DIST.

[Affiliated to the Tamil Nadu Dr.M.G.R.Medical University, Guindy]



**CDE PROGRAMME ON
"EARLY DETECTION OF
PRECANCEROUS LESIONS-ORAL
SCAN WITH HANDS – ON"**

Venue
Academic Forum Hall,
SMIDS,
KULASEKHARAM

GUEST SPEAKERS
Dr. SUBHASH NARAYANAN., Ph.D
Dr. RANIMOL PRASANNA., MDS

**23rd MARCH 2021,
9.00 am to 3.00 pm**

ABOUT THE SPEAKERS



Dr. Subhash has over 40 years of experience in biophotonics research, optical instrumentation, biomedicine & clinical research, and focused on development & clinical validation of spectroscopic imaging devices for early detection of oral and completed his master's in physics from Kerala University and Ph.D in Lasers from the Cochin University of Science and Technology, Kerala. He started his scientific career at the Atmospheric Sciences Division of the National Centre for Earth Science Studies at Thiruvananthapuram in 1980. For his contribution to the field of cancer, he was conferred the Novartis Oration Award in 2010 by the Indian Council for Medical Research, Govt. of India. He is a Senior Fellow of the Head and Neck Optical Diagnostic and Intervention Society, UK; life member of the Optical Society of India, the Indian Laser Association and the Indian Remote Sensing Society. He was a Regular Associate of the AS-ICTP in Trieste (1992-1998), Marie Curie Fellow at the Institute of Quantum Electronics in Florence (1993) and Senior DAAD Fellow at the University of Karlsruhe at Germany (1998).



Dr. Ranimol Prasanna graduated with MDS in Oral Medicine and Radiology (June 2010) from the Government Dental college, Thiruvananthapuram. She is a Faculty of Dentistry since 2014 and a Ph.D research scholar in the University of Kerala on the topic - 'Salivary Biomarkers for Oral Cancer'. She completed her B.Sc. in Dental Surgery in 2002 and has four years experience as Senior Lecturer in PMS College of Dental Science and Research, Thiruvananthapuram, one year teaching experience as Assistant Professor in the Government Dental College, Alappuzha. She has won many best scientific presentation awards and the best dissertation for the year 2010 by the Indian Academy of Oral medicine and Radiology for the topic - 'STAT3 and Cyclin D1 expression in oral precancers and cancers'. She was also awarded the Dr. A.K Bhoweer award for the best scientific publication in the year 2014.

ABOUT THE PROGRAMME

Oral Scan is an optical imaging multimodal device for the early detection of (pre-) cancerous lesions of the oral cavity. The device operates on the principle of diffuse reflectance and tissue autofluorescence wherein light undergoes multiple absorption and scattering events before emerging from the tissue surface. The tumour tissues undergo biochemical and morphological changes during the process of carcinogenesis, which is reflected in the optical signals emanating from the tissue. The device uses an optical system with custom-built software and algorithms for tissue analysis. The Oral Scan enables the physician to visualize and discriminate between healthy and potentially malignant sites of the oral cavity before performing a biopsy. The diagnostic advantages of Oral Scan includes non-invasive in vivo procedures and services, wide-field imaging of oral cavity, utilization of a cloud-based machine learning algorithm for real-time feedback on tissue status and application of oxygenated haemoglobin (HbO₂) absorption maps for biopsy guidance.

PROGRAMME SCHEDULE

09.00am – 09.30am	Registration
09.30am – 10.30am	“How Oral scan works” - Dr. Subhash Narayanan
10.30am – 11.00am	Tea Break
11.00am – 12.00pm	“Differential diagnosis of lesions with Oral scan” - Dr. Ranimol Prasanna
12.00pm – 01.00pm	Lunch Break
01.00pm – 03.00pm	Demo and Hands on