



Vel Tech

Rangarajan Dr. Sagunthala
R&D Institute of Science and Technology
(Deemed to be University Estd. u/s 3 of UGC Act, 1956)



Sl. No. : **10785**

Reg. No. : **16REEC1008**

The Board of Management of
Vel Tech Rangarajan Dr. Sagunthala R&D Institute of
Science and Technology (Deemed to be University)

hereby makes known that

R. SANMUGA SUNDARAM

S/O KALAISELVI RAVICHANDRAN

has been admitted to the Degree of

Doctor of Philosophy

in

ELECTRONICS & COMMUNICATION ENGINEERING

having been certified by duly appointed examiners to be

qualified to receive the same in the year **JUL-2021**

in accordance with the provisions of

UGC Regulations 2016 (for the award of Ph.D. Degree)

Title of the Thesis:

**DESIGN AND DEVELOPMENT OF ELECTROMAGNETIC BANDGAP STRUCTURE
BASED ANTENNAS FOR UWB/ISM BAND APPLICATIONS**

Given under the seal of this Deemed to be University

Dated : 06-NOV-2021

Registrar



S. Salim
Vice Chancellor



B. S. S. S.
Chancellor



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PROCEEDINGS OF THE Ph.D. ORAL EXAMINATION OF Mr. R. SANMUGA SUNDARAM (Reg. No. 16REEC1008), HELD AT 9:30 A.M. ON 21.7.2021 THROUGH ONLINE MODE AT VEL TECH RANGARAJAN Dr. SAGUNTHALA R&D INSTITUTE OF SCIENCE AND TECHNOLOGY, AVADI, CHENNAI-600 062.

The Ph.D. Oral Examination of Mr. R. Sanmuga sundaram (Reg. No. 16REEC1008), on the thesis Design and development of electromagnetic bandgap structure based antennas for UWB/ISM band applications has been conducted on 21.7.2021 at 9:30 A.M., through online mode using Google Meet.

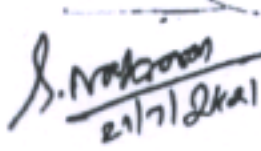
Members Present

1. Dr. Shanmuganantham.T
2. Dr. Jithin kumar M. V.
3. Dr.S.Natarajan

Indian Examiner
Subject Expert
Supervisor & Convener

The research scholar Mr. R. Sanmuga sundaram has presented the salient features of his research work. The members of the Board and audiences have posed the questions related to the subject. The questions raised by the Foreign and Indian Examiners have also been put to the scholar. The scholar has answered all the questions from the Board Members and the audiences. The scholar's performance in the Ph.D. Oral Examination is satisfactory.

Based on the scholar's research work, oral presentation, clarifications and answers to the questions from the Examiners and audiences, the Board unanimously recommends to accept the Ph.D. Thesis for the award of Degree of Doctor of Philosophy in Department of Electronics and Communication Engineering in the School of Electrical & Communication, Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology to Mr.R. Sanmuga sundaram.

1. 
2. 
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21/7/2021

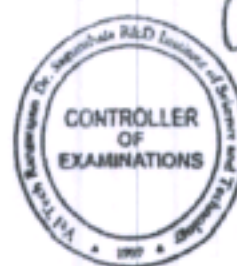
Indian Examiner

Subject Expert

Supervisor & Convener



Vel Tech
Rangarajan Dr. Sagunthala
R&D Institute of Science and Technology
(Deemed to be University) Estd. 1984 Act, 1956



[Signature]

**REPORT OF THE BOARD OF EXAMINERS FOR THE PH.D PUBLIC ORAL
EXAMINATION OF R. SANMUGA SUNDARAM (REG. NO. 16REEC1008) PART-TIME
RESEARCH SCHOLAR, DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING, VEL TECH RANGARAJAN DR. SAGUNTHALA R&D INSTITUTE OF
SCIENCE AND TECHNOLOGY, AVADI, CHENNAI- 600062.**

The Public Viva-Voce examination of Mr. R. Sanmuga sundaram (Reg. No. 16REEC1008), on his Ph.D thesis entitled "*Design and development of electromagnetic bandgap structure based antennas for UWB/ISM band applications*" submitted for the award of Ph.D degree in the Department of Electronics and Communication Engineering of Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology has been conducted as per the following schedule:

Date	:	21/07/2021, Wednesday at 9:30 a.m.
Mode	:	Online Video Conference – Google Meet
Meeting Link	:	Video call link: https://meet.google.com/tok-wkht-ciq Or dial: (US) +1 267-775-1304 PIN: 201 694 527#
Indian Examiner	:	Dr. Shanmuganatham.T Professor, Electronics Engineering, Pondicherry University, Pondicherry.
Subject Expert	:	Dr. Jithin kumar M. V. Vice Principal, Associate Professor, Heera College Of Engineering And Technology. Thiruvananthapuram, Kerala.
Supervisor and Convener	:	Dr. S. Natarajan,. Professor, Department of Electronics and Communication Engineering., Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology

Based on the candidate's exposition of his thesis and his answers to the questions raised by the examiners and other participants, the Board of Examiners have resolved to recommend that the performance of the candidate in his Ph.D. Oral Examination is satisfactory and declare to have passed his Ph.D. Oral Examination and further recommend the award of Ph.D degree in Department of Electronics and Communication Engineering of Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology to the candidate.

[Signature]
Subject Expert

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Indian Examiner

[Signature]
21/7/2021
Supervisor