



அறிவியற் புலம்



**FACULTY OF SCIENCE**

மனோமணியம் சுந்தரனார் பல்கலைக்கழக ஆட்சிக்குழு  
ரூபின்மேரி கொ

கணிதவியல் பாடப்பிரிவில்

அறிஞர் பட்டம் பெறுவதற்குத் தகுதியுடையவர் என முறையாக அமைக்கப்பெற்ற  
தேர்வினோர் சான்றளித்தவாறு ஆகஸ்ட் 2016 / ஆம் ஆண்டில்  
இப் பட்டப்பேற்றுக்கு உரியவர் ஆகின்றார் என இதன்வழி அறிவிக்கின்றது.

பல்கலைக்கழக முத்திரையுடன் இது வழங்கப்படுகின்றது.

The Syndicate of the **MANONMANIAM SUNDARANAR UNIVERSITY**  
hereby makes known that **RUBIN MARY K /**

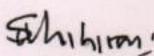
has been admitted to the Degree of **Doctor of Philosophy in  
MATHEMATICS**

he / she having been certified by duly appointed Examiners to be qualified  
to receive the same in the year. **AUGUST 2016 /**



Given under the seal of the University.

திருவந்தெல்லை, இந்தியா  
Tirunelveli, India  
28/12/2016  
நாள், Dated .....

  
**(Dr.S.Prabahar)**  
தேர்வாணையர்  
Controller of Examinations

  
**(Dr.A.John De Britto)**  
பதிவாளர்  
Registrar

  
**(Dr.K.Baskar)**  
துணை வேந்தர்  
Vice-Chancellor



மனோன்மணியம் சுந்தரனார் பல்கலைக்கழகம்  
 Manonmaniam Sundaranar University



அறிவியற் புலம்

Faculty of Science



மனோன்மணியம் சுந்தரனார் பல்கலைக்கழக ஆட்சிக்குழு  
 வில்சன் பே

கணிதவியல் பாடப்பிரிவில்

அறிஞர் பட்டம் பெறுவதற்குத் தகுதியுடையவர் என முறையாக அமைக்கப்பெற்ற  
 தேர்வினோர் சான்றளித்தவாறு அக்டோபர் 2017 ஆம்  
 ஆண்டில் இப் பட்டப்பேற்றுக்கு உரியவர் ஆகின்றார் என இதன்வழி அறிவிக்கின்றது.

பல்கலைக்கழக முத்திரையுடன் இது வழங்கப்படுகின்றது.

The Syndicate of the **MANONMANIAM SUNDARANAR UNIVERSITY**  
 hereby makes known that **WILSON P**  
 has been admitted to the **Degree of Doctor of Philosophy in**  
**MATHEMATICS**

he / she having been certified by duly appointed Examiners to  
 be qualified to receive the same in the year **OCTOBER 2017**

Given under the seal of the University.



திருநெல்வேலி, இந்தியா  
 Tirunelveli, India

நாள் / Dated 06.12.2017

தேர்வாணையர்  
 Controller of Examinations

Sh. S. Prabahar  
 (Dr.S.Prabahar)

தேர்வாணையர்  
 Controller of Examinations

P. Govindaraju  
 (Dr.P.Govindaraju)  
 பதிவாளர்  
 Registrar

K. Baskar  
 (Dr.K.Baskar)  
 துணைவெந்தர்  
 Vice-Chancellor

**KANNUR UNIVERSITY**  
**EXAMINATION BRANCH**



No. EG.I/3/PhD/408

Thavakkara, Civil Station P O

Dated: 05/01/2017

**NOTIFICATION**

It is notified for the information of all concerned that the Vice Chancellor has approved the report of the Examiners appointed to adjudicate the Thesis of the candidate named below and declared her eligible for the award of the Degree of Doctor of Philosophy in Mathematics with effect from 30/12/2016

Name of Candidate : Smt.Marykutty P.T

Research Supervisor : Dr.Germina K.A

Topic of Research : "New Directions in the Theory of Set Labelings of Graphs and Related topics"

**CONTROLLER OF EXAMINATIONS**

To

Smt Marykutty P.T  
Dept. of Mathematics  
Nirmalagiri College  
Nirmalagiri (PO)-670701

Copy for information to :

1. The Registrar, Universities in Kerala (with CL)
2. The Secretary, University Grants Commission, Bahadur Shah Marg, New Delhi (with C.L)
3. The Principal Secretary, Higher Education Department, Government of Kerala (with C L)
4. The Superintendent, Government Press, Thiruvananthapuram (with C L)
5. The District Information Officer, Kannur ( with C L)
6. The Assistant Librarian, University Central Library.
7. The Examiners/guide concerned
8. The Director INFLIBNET Centre Ahmedabad (with C L)
9. Website, Kannur University
10. PS to VC/PA to PVC/PA to Registrar/PA to FO

PA to CE/PRO/Academic E Section/Pl D – A Section/Enquiry

Category 2-D

**KANNUR UNIVERSITY**  
**EXAMINATION BRANCH**



No. EG.I/3/PhD/409/13

**Thavakkara, Civil Station P O**  
**Dated: 04/01/2017**

**NOTIFICATION**

It is notified for the information of all concerned that the Vice Chancellor has approved the report of the Examiners appointed to adjudicate the Thesis of the candidate named below and declared him eligible for the award of the Degree of Doctor of Philosophy in Mathematics with effect from 30/12/2016

Name of Candidate : **Sri.Sudev.N.K**

Research Supervisor : **Dr.Germina K.A**

Topic of Research : **"Set Valuation of Discrete Structures and Their Applications"**

**CONTROLLER OF EXAMINATIONS**

To

Sri Sudev N K  
Naduvath Mana  
Nandikkara PO  
Thrissur-680301

Copy for information to :

1. The Registrar, Universities in Kerala (with CL)
2. The Secretary, University Grants Commission,  
Bahadur Shah Marg, New Delhi (with C L)
3. The Principal Secretary, Higher Education Department,  
Government of Kerala (with C L)
4. The Superintendent, Government Press, Thiruvananthapuram (with C L)
5. The District Information Officer, Kannur ( with C L)
6. The Assistant Librarian, University Central Library.
7. The Examiners/guide concerned
8. The Director-INFLIBNET Centre Ahemadabad (with C L)
9. Website, Kannur University
10. PS to VC/PA to PVC/PA to Registrar/PA to FO

PA to CE/PRO/Academic E Section/Pl D – A Section/Enquiry

  
**KANNUR UNIVERSITY**  
RESEARCH DIRECTORATE

No. RD/Exam I/406(F)/18

Thavakkara, Civil Station P O,

Dated: 03/09/2018

**NOTIFICATION**

It is notified for information of all concerned that the Vice Chancellor has approved the report of the examiners appointed to adjudicate the thesis of the candidate named below and declared eligible for award of the Degree of Doctor of Philosophy in Mathematics with effect from **17/08/2018**

Name of Candidate : Sri. ASHRAF P K

Research Supervisor : Dr. K A GERMINA

Topic of Research : "SOME STUDIES ON SIGNED GRAPHS"



CONTROLLER OF EXAMINATIONS

To

Sri. ASHRAF P K  
MELEPUTHALATH(H)  
NIT CAMPUS(P O)  
KALANTHODE  
KOZHIKODE

Copy for information to :

1. The Registrar, Universities in Kerala (with CL)
2. The Secretary, University Grants Commission,  
Bahadur Shah Marg, New Delhi (with C L)
3. The Principal Secretary, Higher Education Department,  
Government of Kerala (with C L)
4. The Superintendent, Government Press, Thiruvananthapuram (with C L)
5. The District Information Officer, Kannur (with C L)
6. The Assistant Librarian, University Central Library.
7. The Examiners/guide concerned
8. The Director INFLIBNET Centre Ahmedabad (with C L)
9. Website, Kannur University
10. PS to VC/PA to PVC/PA to Registrar/PA to FO

PA to CE/PRO/Academic E Section/PI D – A Section/Enquiry

KANNUR UNIVERSITY  
RESEARCH DIRECTORATE

RD/Exam-2/264(F)/2018

Thavakkara, Civil Station P.O.  
Dated: 04/12/2018

NOTIFICATION

It is notified for information of all concerned that the Vice Chancellor has approved the report of the examiners appointed to adjudicate the thesis of the candidate named below and declared eligible for award of the Degree of 'Doctor of Philosophy' in Mathematics with effect from 29/11/2018.

Name of Candidate : Smt. USHA.K.K

Research Supervisor : Dr. GERMINA.K.A

Topic of Research : "A STUDY ON SET-VALUATIONS OF GRAPHS AND HYPERGRAPHS"

  
CONTROLLER OF EXAMINATIONS

To

Smt.USHA K K  
AMBADI  
CHITHRARI  
PATTANUR PO  
KANNUR - 670595

Copy for information to :

1. The Registrar, Universities in Kerala (with CL)
2. The Secretary, University Grants Commission,  
    Bahadur Shah Marg, New Delhi (with C L)
3. The Principal Secretary, Higher Education Department,  
    Government of Kerala (with C L)
4. The Superintendent, Government Press, Thiruvananthapuram (with C L)
5. The District Information Officer, Kannur ( with C L)
6. The Assistant Librarian, University Central Library.
7. The Examiners/guide concerned
8. The Director INFLIBNET Centre Ahemadabad (with C L)
9. Website, Kannur University
10. PS to VC/PA to PVC/PA to Registrar/PA to FO  
    PA to CE/PRO/RD-A Section/PI D - A Section/Enquiry

*Ab.*  
-112118



केंद्रीय विश्वविद्यालय  
Central University of Kerala

केरल केंद्रीय विश्वविद्यालय के कुलपति, शैक्षिक परिषद् एवं कार्यकारी परिषद्, विधियत् नियुक्त परीक्षक मंडल के सिफारिशों  
के आधार पर घोषणा करते हैं कि

जिन्टो जैम्स

को



वर्ष 2018 में

गणित विज्ञान

में

डॉक्टर ऑफ़ फिलोसफी

की उपाधि प्रदान की गई है।

प्रबंध का शीर्षक: स्टडी ऑन लेबेल्ड ग्राफ्स एण्ड द्यर प्रोपर्टीज़

The Vice Chancellor, the Academic Council and the Executive Council  
of the Central University of Kerala, on the recommendations of the duly appointed Board of Examiners,  
hereby declare that

*JINTO JAMES*

has been awarded the Degree of

DOCTOR OF PHILOSOPHY

in

Mathematics

in the year 2018

Title of Thesis: Study on Labeled Graphs and Their Properties

विश्वविद्यालय की मुहर के तहत / Given under the Seal of the University

कासरगोड / Kasargod - 671316  
तारीख / Date : 25 FEB 2019



*R. N. Murthy*  
कुलपति  
VICE-CHANCELLOR

**DIMENSION OF POSETS  
IN THE STUDY OF SET LABELING OF GRAPHS**

A Thesis Submitted to  
Central University of Kerala  
in partial fulfillment of the requirements for the degree of

**DOCTOR OF PHILOSOPHY  
IN  
MATHEMATICS**

By

**NAGESWARA RAO KARREY  
(Reg. No. MAT071402)**

*Under the guidance of*

**DR. SHAINI P**



**DEPARTMENT OF MATHEMATICS  
SCHOOL OF PHYSICAL SCIENCES  
CENTRAL UNIVERSITY OF KERALA  
PERIYE, KASARAGOD-671316  
KERALA, INDIA**

**APRIL 2017**



केरल केन्द्रीय विश्वविद्यालय  
CENTRAL UNIVERSITY OF KERALA  
TEJASWINI HILLS, PERIYE P. O, KASARAGOD-671316

No.CUK/Exam/Ph.D. Adjudication/ Confi/81/16

Dated, July 09, 2020

Dr.Shaini P,  
Assistant Professor,  
Department of Mathematics,  
Central University of Kerala.

Sub: Approval for conduct online Ph.D. Viva – Voce Examination

Sir,

With reference to your letter dated 08.07.2020 on the subject cited, I am to inform you that the Vice Chancellor has approved for conduct of online Ph.D. Viva- Voce Examination of Ms. Deepa.K (Reg. No.MAT071403) , Research Scholar, Department of Mathematics, CUK, on 16<sup>th</sup> July 2020 as per **UGC Guidelines on Examinations and Academic Calendar for the Universities in View of COVID-19 Pandemic and Subsequent Lockdown** and the Notification No.CUK/ACD/Regulations/2020 dated 4<sup>th</sup> May 2020 notifying the Regulations on **Online Academic Activities including Online Examinations**.

Thanking you,

Yours faithfully,

CONTROLLER OF EXAMINATIONS.

No.CUK/Exam/Ph.D. Adjudication/ Confi/81/16

Dated, July 09,2020

Copy to

1. The PS to Vice Chancellor
2. The Director of Research
3. The Dean, School of Physical Sciences
4. The Head, Department of Mathematics
5. The System Analyst with the request to facilitate for the above.
6. Office Copy

CONTROLLER OF EXAMINATIONS.



केरल केन्द्रीयविश्वविद्यालय  
CENTRAL UNIVERSITY OF KERALA  
TEJASWINI HILLS, PERIYE P.O, KASARGOD- 671 316

No.Exam/Ph.DAdjication/conf/81/16/

Dated, May 26, 2020

Dr. Shaini P.,  
Asstt. Professor,  
Department of Mathematics,  
Central University of Kerala.

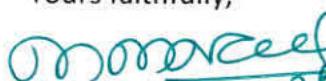
Subject: Approval for conduct online Ph.D. Viva-Voce Examination

Madam,

With reference to your letter dated 25.05.2020 on the subject cited, I am to inform you that the Vice-Chancellor has approved for conduct of online Ph.D. Viva-Voce Examination of Ms. Prajisha E, Research Scholar, Department of Mathematics, CUK, on 2<sup>nd</sup> June, 2020 as per the **UGC Guidelines on Examinations and Academic Calendar for the Universities in View of COVID-19 Pandemic and Subsequent Lockdown** and the Notification No. CUK/ACAD/Regulations/2020 dated 4<sup>th</sup> May, 2020 notifying the Regulations on Online Academic Activities including Online Examinations.

Thanking you,

Yours faithfully,

  
26/05/2020  
CONTROLLER OF EXAMINATIONS.

No.Exam/Ph.DAdjication/conf/81/16/

Dated, May 26, 2020

Copy to

1. The PS to Vice-Chancellor
2. The Dean, School of Physical Sciences
3. The PS to Registrar
4. The PS to Finance Officer
5. The Head, Department of Mathematics
6. The System Analyst with the request to facilitate for the above.
7. Ms. Prajisha E, Research Scholar, Dept. of Mathematics
8. Office Copy

  
26/05/2020  
CONTROLLER OF EXAMINATIONS.



केरल केंद्रीय विश्वविद्यालय  
CENTRAL UNIVERSITY OF KERALA  
(राजसद के अधिनियम, 2009 द्वारा स्थापित/Established by an Act of Parliament, 2009)  
तेजस्विनी हिल्स, पेरिया डाक, कासरगोड, केरल, भारत -671 316  
Tejaswini Hills, Periyé.P.O, Kataragod, Kerala, India 671 316

अनंतिम प्रमाण-पत्र/PROVISIONAL CERTIFICATE

Sl. No: 23/2021

Register No: MCH071603

This is to certify that **Ms. ANJALI K** has been declared eligible for the award of the Degree of **Doctor of Philosophy in Chemistry** after successful completion of the Open Defence held on 15.03.2021.

The Degree has been awarded in accordance with the provisions of the University Grants Commission (Minimum Standards and Procedure for Award of M.Phil. / Ph.D. Degrees) Regulations, 2016.

Title of the Thesis: "ENCAPSULATION OF FUNCTIONAL MOLECULES INTO THE FRAMEWORK MOLECULAR SIEVE MATERIALS: PREPARATION & ITS CATALYTIC APPLICATIONS"



दिनांक/Date :

14 JUL 2021

Controller of Examinations

Scanned by TapScanner

*monal*  
परीक्षा नियंत्रक



# University of Delhi

विद्या-वाचस्पति \* Doctor of Philosophy (Ph.D.)

प्रमाणित किया जाता है कि मार्च, 2018 में

फंक्शनालाइज़ ऑलिक्युलर सिव मेटेरियल्स एज पोटेन्शियल केटेलिस्ट्स एंड

कैटेलिटिक सपोर्ट

पर शोध प्रबंध स्वीकृत हो जाने के उपरांत

मक्सूद अहमद

को 2018 के दीक्षांत समारोह में दिल्ली विश्वविद्यालय की  
विद्या-वाचस्पति की उपाधि प्रदान की गई ।

विभाग: रसायन विज्ञान

This is to certify that after approval of the thesis on

Functionalized Molecular Sieve Materials as Potential Catalysts and Catalytic

Support

in March, 2018

Maqsood Ahmed

qualified for the degree of Doctor of Philosophy (Ph.D.) of this University.

The said degree was conferred upon him/her at the convocation held in 2018 .

Department: Chemistry

कुलसचिव

दिल्ली विश्वविद्यालय

Registrar

University of Delhi



कुलपति

दिल्ली विश्वविद्यालय

Vice Chancellor

University of Delhi

दिल्ली, दिनांक 19 नवम्बर, 2018  
Delhi, Dated the 19th November, 2018

नामांकन संख्या

Enrol.No. Ph.D-08/15



218488



# University of Delhi

विद्या-वाचस्पति \* Doctor of Philosophy (Ph.D.)  
प्रमाणित किया जाता है कि सितम्बर, 2018 में  
प्रीपरेशन ऑफ इनआर्गेनिक कम्पोजीट मैटेरियल्स बाइ इंटरकलेशन ऑफ लेर्ड

हाइड्राक्साइड्स एंड देयर एप्लीकेशन्स

पर शोध प्रबंध स्वीकृत हो जाने के उपरांत धनजय शर्मा

को 2018 के दीक्षांत समारोह में दिल्ली विश्वविद्यालय की  
विद्या-वाचस्पति की उपाधि प्रदान की गई ।

विभाग: रसायन विज्ञान

This is to certify that after approval of the thesis on  
Preparation of Inorganic Composite Materials by Intercalation of Layered Double  
Hydroxides and their Applications`

in September, 2018

Dhanjay Sharma

qualified for the degree of Doctor of Philosophy (Ph.D.) of this University.

The said degree was conferred upon him/her at the convocation held in 2018 .

Department: Chemistry

कुलसंचिव  
दिल्ली विश्वविद्यालय

Registrar

University of Delhi



दिल्ली, दिनांक 19 नवम्बर, 2018  
Delhi, Dated the 19th November, 2018

कुलपति  
दिल्ली विश्वविद्यालय

Vice Chancellor  
University of Delhi

नामांकन संख्या

Enrol.No. Ph.D-21/2016



218805

# COCHIN UNIVERSITY OF SCIENCE AND TECHNOLOGY



No. ET<sub>2</sub>/1105/S/5/2017

Cochin University P.O.  
Kochi - 682 022  
Dated: 03/02/2018

## NOTIFICATION

It is hereby notified for the information of all concerned that **Smt. SAJITHA N.R.**, a Research Scholar of the Department of Applied Chemistry, Cochin University of Science and Technology, Kochi-22 who worked under the guidance of Dr. M. R. Prathapachandra Kurup, Professor (Rtd.), Department of Applied Chemistry, CUSAT, Kochi - 22 has been declared by the Vice-Chancellor of this University to be eligible for the award of the Degree of Doctor of Philosophy under the Faculty of **Science** for the thesis entitled "**Investigations on ligating properties of some multidentate ligands towards transition metals: Spectral Studies and crystal structures**".

This award is effective from **29<sup>th</sup> January, 2018**.

To

## **CONTROLLER OF EXAMINATIONS**

- 1) Smt. Sajitha N.R., Ayyaril (H), Azhicode P.O., Azhikode, Kodungallur, Thrissur, PIN: 680 666 (Candidate)
- 2) Dr. M.R. Prathapachandra Kurup, Professor, Department of Chemistry, Central University of Kerala, Riverside Campus, Padenakad, Nileswar (Research Guide)
- 3) Dr. M.R. Prathapachandra Kurup, Professor, Department of Chemistry, Central University of Kerala, Riverside Campus, Padenakad, Nileswar (Dean of the Faculty)
- 4) The Head, Department of Applied Chemistry, CUSAT, Kochi-22.
- 5) The Joint Registrar (Examinations)
- 6) The External Examiners, with Compliments.
- 7) The Secretary, University Grants Commission, Bahadurshah Zafar Marg, New Delhi-110 002.
- 8) The Secretary, Association of Indian Universities, 16, Kotla Road, New Delhi- 110 002.
- 9) The Secretary, Higher Education Department, Govt. of Kerala, Trivandrum.
- 10) The Editor, Current Science, Raman's Research Institute, Near Mekhri Circle, Bangalore - 560 056.
- 11) The Editor, University News, Association of Indian University, New Delhi - 110 002.
- 12) The Director, Public Relations & Publications/PS to VC/PS to PVC/ PA to Registrar
- 13) Ac.B/Pl.B Sections.
- 14) NAAC CELL

# COCHIN UNIVERSITY OF SCIENCE AND TECHNOLOGY

കൊച്ചി ശാസ്ത്ര സാങ്കേതിക സർവകലാശാല

Controller of Examinations



KOCHI-682 022  
KERALA, INDIA

No. ET<sub>2</sub>/8153/S/28/2016

Dated: 06.04.2019

## NOTIFICATION

It is hereby notified for the information of all concerned that **Smt. Ambili Aravindakshan A** (Register Number: 4401), a Research Scholar of the Department of Applied Chemistry, Cochin University of Science and Technology, Kochi-22 who worked under the guidance of Dr. M R Prathapachandra Kurup, Professor (Rtd), Department of Applied Chemistry, Cochin University of Science and Technology, Kochi- 22 has been declared by the Vice-Chancellor of this University to be eligible for the award of the Degree of Doctor of Philosophy under the Faculty of **Science** for the thesis entitled "**AN EXPLORATION OF THE COORDINATION ASPECTS OF AROYLHYDRAZONES**".

This award is effective from **1<sup>st</sup> April, 2019**.

*Lec* ✓  
**CONTROLLER OF EXAMINATIONS**

To

Smt. Ambili Aravindakshan A  
Devi Nivas, Aloor (H)  
Aloor P O, Mattom (Via)  
Thrissur – 680 602

COCHIN UNIVERSITY OF SCIENCE AND TECHNOLOGY



No. ET<sub>2</sub>/1308/S/4/2018

Cochin University P.O.  
Kochi - 682 022

Dated: 30 /10/2019

## NOTIFICATION

It is hereby notified for the information of all concerned that **Ambili K U (Register Number: 4416)**, a Research Scholar of the Department of Applied Chemistry, Cochin University of Science and Technology, Kochi-22 who worked under the guidance of Dr. M R Prathapachandra Kurup, Professor (Rtd), Department of Applied Chemistry, Cochin University of Science and Technology, Kochi-22 has been declared by the Vice-Chancellor of this University to be eligible for the award of the Degree of Doctor of Philosophy under the Faculty of **Science** for the thesis entitled "**BICOMPARTMENTAL SCHIFF BASE MODULATED Ni(II), Cu(II), Zn(II) AND Pd(II) COMPLEXES: SPECTRAL ASPECTS AND CORROSION INHIBITION STUDIES**".

This award is effective from **21<sup>st</sup> October, 2019**.

## **CONTROLLER OF EXAMINATIONS**

To

- 1) Smt. Ambili K U, Soubhagya Bhavan, Thiruvilwamala P.O., Thrissur – 680 588 (Candidate)
- 2) Dr. M R Prathapachandra Kurup, Professor (Rtd), Department of Applied Chemistry, CUSAT, Kochi – 22 (Research Guide)
- 3) Dr. K Girish Kumar, Professor, Department of Applied Chemistry, CUSAT, Kochi – 22. (Dean of the Faculty)
- 4) The Head, Department of Applied Chemistry, CUSAT, Kochi-22
- 5) The External Examiners, with Compliments
- 6) The Secretary, University Grants Commission, Bahadurshah Zafar Marg, New Delhi-110 002.
- 7) The Secretary, Association of Indian Universities, 16, Kotla Road, New Delhi- 110 002.
- 8) The Secretary, Higher Education Department, Govt. of Kerala, Trivandrum.
- 9) The Editor, Current Science, Raman's Research Institute, Near Mekhri Circle, Bangalore – 560 056.
- 10) The Editor, University News, Association of Indian University, New Delhi - 110 002.
- 11) The Director, Public Relations & Publications/PS to VC/PS to PVC/ PA to Registrar
- 12) Ac.B/IQAC.
- 13) Stock File/Day File/ File Copy



No. ET2/1403/S/39/2018

Dated: 02/09/2019

## NOTIFICATION

It is hereby notified for the information of all concerned that **Fousiamol M M (Register Number: 4641)**, a Research Scholar of the Department of Applied Chemistry, Cochin University of Science and Technology, Kochi-22 who worked under the guidance of Dr. M R Prathapachandra Kurup, Professor (Rtd), Department of Applied Chemistry, Cochin University of Science and Technology, Kochi-22 has been declared by the Vice-Chancellor of this University to be eligible for the award of the Degree of Doctor of Philosophy under the Faculty of **Science** for the thesis entitled "**COORDINATING VERSATILITY OF TRANSITION METAL COMPLEXES DERIVED FROM NNO DONOR AROVLHYDRAZONES: SPECTRAL AND BIOLOGICAL STUDIES**".

This award is effective from **26<sup>th</sup> August, 2019**.

*Dr. C. C. /*  
**CONTROLLER OF EXAMINATIONS**

To

Fousiamol M M  
Chathanattu House  
Kovalloor P.O.  
Madiyoor  
Kothamangalam- 686 671  
Ernakulam

കൊച്ചി ശാസ്ത്ര സാങ്കേതിക സർവകലാശാല  
COCHIN UNIVERSITY OF SCIENCE AND TECHNOLOGY

Controller of Examinations



KOCHI-682 022  
KERALA, INDIA

No. CUSAT/EXAM (T). A2/1199/2019

Dated: 05/11/2019

**NOTIFICATION**

It is hereby notified for the information of all concerned that **Nithya Mohan (Register Number: 5226)**, a Research Scholar of the Department of Applied Chemistry, Cochin University of Science and Technology, Kochi-22 who worked under the guidance of Dr. P M Sabura Begum, Professor, Department of Applied Chemistry, Cochin University of Science and Technology, Kochi-22 (Supervising Guide) and Dr. M R Prathapachandra Kurup, Professor (Rtd), Department of Applied Chemistry, Cochin University of Science and Technology, Kochi-22 (Joint Guide) has been declared by the Vice-Chancellor of this University to be eligible for the award of the Degree of Doctor of Philosophy under the Faculty of **Science** for the thesis entitled "**Novel salen-type Schiff bases and their 3d metal complexes: Theoretical studies, investigation on sensing, optical, biological and catalytic activities**".

This award is effective from **28<sup>th</sup> October, 2019**.

*JK/Ce* /  
**CONTROLLER OF EXAMINATIONS**

To

Nithya Mohan  
Nedumpilly (H)  
Karingamthuruth  
Kongoorppilly P.O.  
PIN – 683 518

കൊച്ചി ശാസ്ത്ര സാങ്കേതിക സർവകലാശാല  
COCHIN UNIVERSITY OF SCIENCE AND TECHNOLOGY

Controller of Examinations



KOCHI-682 022  
KERALA, INDIA

No.CUSAT/EXAM (T).A2/2318/2019

Date: 14 /09/2020

**NOTIFICATION**

It is hereby notified for the information of all concerned that **Daly Kuriakose (Reg. No. 4754)**, a Research Scholar of the Department of Applied Chemistry, Cochin University of Science and Technology, Kochi-22, who worked under the guidance of Dr. M R Prathapachandra Kurup, Professor (Rtd.), Department of Applied Chemistry, Cochin University of Science and Technology, Kochi-22 has been declared by the Vice-Chancellor of this University to be eligible for the award of the Degree of Doctor of Philosophy under the Faculty of **Science** for the thesis entitled "**SOLVENT EXCHANGEABLE MONONUCLEAR AND BINUCLEAR DIOXIDOMOLYBDENUM(VI) COMPLEXES OF HALOGEN INCORPORATED ONO DONOR AROYLHYDRAZONES:CRYSTALLINE ARCHITECTURES AND HIRSHFELD SURFACE ANALYSIS**".

This award is effective from **27<sup>th</sup> August, 2020**.

**CONTROLLER OF EXAMINATIONS**

To

Daly Kuriakose  
Pattammady House  
Puliyannam P O  
Puliyannam, Angamaly  
Ernakulam-683 572.

കൊച്ചി ശാസ്ത്ര സാങ്കേതിക സർവകലാശാല  
COCHIN UNIVERSITY OF SCIENCE AND TECHNOLOGY

Controller of Examinations



KOCHI-682 022  
KERALA, INDIA

No.CUSAT/EXAM (T).A2/2917/2019

Date: 09/09/2020

**NOTIFICATION**

It is hereby notified for the information of all concerned that **Manjari Jayendran (Reg. No. 5225)**, a Research Scholar of the Department of Applied Chemistry, Cochin University of Science and Technology, Kochi-22, who worked under the guidance of Dr. P M Sabura Begum, Professor, Department of Applied Chemistry, Cochin University of Science and Technology, Kochi-22 (Supervising Guide) and Dr. M R Prathapachandra Kurup, Professor (Rtd.), Department of Applied Chemistry, Cochin University of Science and Technology, Kochi-22 (Joint Guide) has been declared by the Vice-Chancellor of this University to be eligible for the award of the Degree of Doctor of Philosophy under the Faculty of **Science** for the thesis entitled "**TRANSITION METAL COMPLEXES OF SCHIFF BASES DERIVED FROM HALO-SUBSTITUTED CARBONYL COMPOUNDS: AN INSIGHT INTO STRUCTURAL AND SPECTRAL ASPECTS**".

This award is effective from **27<sup>th</sup> August, 2020**.

A handwritten signature in blue ink, appearing to be a stylized form of the name "Controller of Examinations".

**CONTROLLER OF EXAMINATIONS**

To

Manjari Jayendran  
'NIRANJANAM'  
J N Road  
Perinthalmanna P O  
Malappuram, PIN: 679 322

കൊച്ചി ശാസ്ത്ര സാങ്കേതിക സർവകലാശാല

# COCHIN UNIVERSITY OF SCIENCE AND TECHNOLOGY

Controller of Examinations



KOCHI-682 022  
KERALA, INDIA

No. CUSAT/EXAM (T).A2/1780/2020

Dated: 17/11/2020

## NOTIFICATION

It is hereby notified for the information of all concerned that **Asha T M (Register Number : 5241)**, a Research Scholar of the Department of Applied Chemistry, Cochin University of Science and Technology, Kochi-22 who worked under the guidance of Dr. M R Prathapachandra Kurup, Professor (Rtd), Department of Applied Chemistry, Cochin University of Science and Technology, Kochi-22 has been declared by the Vice-Chancellor of this University to be eligible for the award of the Degree of Doctor of Philosophy under the Faculty of **Science** for the thesis entitled "**MIXED LIGAND COMPLEXES OF DIOXIDOMOLYBDENUM(VI) FEATURED WITH ONO AND ONS DONOR LIGAND SYSTEMS: STRUCTURAL INSIGHTS AND EXPLORATION OF THEIR BIOLOGICAL, CATALYTIC AND OPTOELECTRONIC APPLICATIONS**".

This award is effective from **28<sup>th</sup> October, 2020**

A handwritten signature in black ink, appearing to be the name of the Controller of Examinations, is placed here.

**CONTROLLER OF EXAMINATIONS**

To

ASHA T M,  
THUNDIPARAMBIL (H),  
VATHURUTHY,  
MATSYAPURI P O,  
KOCHI, PIN - 682 029.

കൊച്ചി ശാസ്ത്ര സാങ്കേതിക സർവകലാശാല  
COCHIN UNIVERSITY OF SCIENCE AND TECHNOLOGY

Controller of Examinations



KOCHI-682 022  
KERALA, INDIA

No. CUSAT/EXAM (T).A2/6930/2020

Dated: 08/02/2021

**NOTIFICATION**

It is hereby notified for the information of all concerned that **Lincy Tom (Register Number : 4921)**, a Research Scholar of the Department of Applied Chemistry, Cochin University of Science and Technology, Kochi - 22 who worked under the guidance of Dr. M R Prathapa Chandra Kurup, Professor (Retd.), Department of Applied Chemistry, Cochin University of Science and Technology, Kochi - 22 has been declared by the Vice-Chancellor of this University to be eligible for the award of the Degree of Doctor of Philosophy under the Faculty of **Science** for the thesis entitled "**Congeneric, Monomeric and Polymeric Complexes from Isoniazid Scaffolds: Exploring Structure, Properties and Applications**".

This award is effective from **01<sup>st</sup> February, 2021**.

**CONTROLLER OF EXAMINATIONS**

To

Lincy Tom,  
Niravath (H),  
Perumballor P O,  
Muvattupuzha,  
Kerala - 686 673.

## CERTIFICATE

This is to certify that Ms. SARANYA K S (Reg. No. MCH071401) has successfully defended her thesis entitled "*Natural hydrocolloids mediated green synthesis of metal and metal oxide nanoparticles for environmental applications*" under the guidance of Dr. Bini George, Assistant Professor, Department of Chemistry, School of Physical Sciences and the co-guidance of Dr. Rajendra Pilankatta, Associate Professor, Department of Biochemistry and Molecular Biology, School of Biological Sciences, Central University of Kerala on 22<sup>nd</sup> February 2021.

A. Sakthivel  
24/2/2021

Prof. (Dr.) A. Sakthivel  
Head, Dept. of Chemistry.



Prof. (Dr.) A. SAKTHIVEL  
आचार्य एवं अध्यक्ष / Professor & Head  
सामाजिक विज्ञान मिनिस्टरी / Department of Chemistry  
सौन्दर्य विज्ञान शैक्षणिक संस्थान / School of Physical Sciences  
केन्द्रीय विश्वविद्यालय / Central University of Kerala  
तेजस्विनी हिल्स, पेरिया / Tejaswini Hills, Periya P.O.  
कासारगोड, केरल-671316 / Kasaragod, Kerala-671 320



# केरल केंद्रीय विश्वविद्यालय CENTRAL UNIVERSITY OF KERALA

(संसद के अधिनियम, 2009 द्वारा स्थापित/Established by an Act of Parliament, 2009)

तेजस्विनी हिल्स, पेरिया डाक, कासरगोड, केरल, भारत -671 316

Tejaswini Hills, Periyed, Kasaragod, Kerala, India 671 316

## अनंतिम प्रमाण-पत्र/PROVISIONAL CERTIFICATE

Sl. No: 30 /2021

Register No: MCH071607

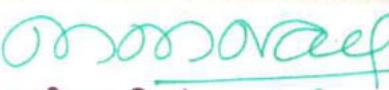
This is to certify that **Mr. MIJUN CHANDRAN** has been declared eligible for the award of the Degree of **Doctor of Philosophy** in **Chemistry** after successful completion of the Open Defence held on 15.03.2021.

The Degree has been awarded in accordance with the provisions of the University Grants Commission (Minimum Standards and Procedure for Award of M.Phil. / Ph.D. Degrees) Regulations, 2016.

Title of the Thesis: “**SYNTHESIS AND CHARACTERISATION OF HETEROSTRUCTURED TRANSITION METAL CARBIDE MXENE BASED ELECTRODE MATERIALS FOR ENERGY AND SENSOR APPLICATIONS**”



दिनांक/Date : 28 AUG 2021

  
परीक्षा नियंत्रक  
Controller of Examinations

ENTERED BY :	
COMPARED BY :	
VERIFIED BY :	

A01203



# केरल केंद्रीय विश्वविद्यालय Central University of Kerala

केरल केंद्रीय विश्वविद्यालय के कुलपति, शैक्षिक परिषद् एवं कार्यकारी परिषद्, विधिवत् नियुक्त परीक्षक मंडल के सिफारिशों  
के आधार पर घोषणा करते हैं कि

सविता. के.एल  
को

वर्ष 2020 में



अर्थशास्त्र  
में  
डॉक्टर ऑफ फिलोसोफी

की उपाधि प्रदान की गई है।

प्रबंध का शीर्षक: एफिशिएन्सी एण्ड एफेक्टीवनेस्स ऑफ होस्पिटल वेस्ट्स मैनेजमेंट इन केरला: एन एनालिसिस  
बेसड ऑन होस्पिटल ऑनेरशिप

The Vice Chancellor, the Academic Council and the Executive Council  
of the Central University of Kerala, on the recommendations of the duly appointed Board of Examiners,  
hereby declare that

SAVITHA. K.L

has been awarded the Degree of

**DOCTOR OF PHILOSOPHY**

in

Economics

in the year 2020

**Title of Thesis:** Efficiency and Effectiveness of Hospital Waste Management in Kerala: An  
Analysis Based on Hospital Ownership

विश्वविद्यालय की मुहर के तहत / Given under the Seal of the University

कासरगोड / Kasargod - 671320  
तारीख / Date : 19 FEB 2020



*Savitha*  
कुलपति  
VICE CHANCELLOR



## केरल केन्द्रीय विश्वविद्यालय

CENTRAL UNIVERSITY OF KERALA

Tejeswini Hills, Periyar (P.O.), Kasargod-671320

सरकार के अधिनियम, वर्ष 2009 द्वारा स्थापित। Established under the Act of Parliament in 2009।

Prof. (Dr.) Balju K.C.

Professor & Dean (SE)

Department of Economics

School of Economics

Mob: 9495718829

E-Mail: [kcbuk2012@gmail.com](mailto:kcbuk2012@gmail.com)

### CERTIFICATE

6 September 2019

This is to certify that the thesis entitled "Dynamics of Migration in the Labour Market of Kerala: An Inter District Study of Immigrant Labourers in the Construction Sector" is a bonafide record of the research work carried out by Mrs. Shamna T C under my supervision and guidance at the Department of Economics, School of Economics, Central University of Kerala. It is also further certified that the thesis is free from Plagiarism after having checked using URKUND and no sentence, equation, diagram, table, paragraph or section has been copied from any previous work verbatim except at a very minimal level with due acknowledgement of the original sources. The similarity found by running the plagiarism software is 4 %.

Dr. P Abdul Kareem

Associate Professor and Head

Department of Economics

Central University of Kerala

Prof. (Dr.) K C Balju  
Research Supervisor

प्र०. (डॉ.) कौ. चौ. बॉल्जू (प्र०.) K C Balju

विश्वविद्यालयीय प्र०. (डॉ.) K C Balju



DYNAMICS OF MIGRATION IN THE LABOUR MARKET OF KERALA:  
AN INTER DISTRICT STUDY OF IMMIGRANT LABOURERS IN  
THE CONSTRUCTION SECTOR

A thesis submitted to Central University of Kerala  
in partial fulfilment of the requirements for the degree of  
**Doctor of Philosophy in Economics**

By

SHAMNA T.C.

Reg. No: GEC071204

Under the Guidance and Supervision of

Prof. (Dr.) K C Baiju



DEPARTMENT OF ECONOMICS  
SCHOOL OF ECONOMICS  
CENTRAL UNIVERSITY OF KERALA

SEPTEMBER - 2019



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AI QUAD CAMERA



# केरल केंद्रीय विश्वविद्यालय CENTRAL UNIVERSITY OF KERALA

(संसद के अधिनियम, 2009 द्वारा स्थापित/Established by an Act of Parliament, 2009)

तेजस्विनी हिल्स, पेरिया डाक, कासरगोड, केरल, भारत - 671 316

Tejaswini Hills, Periyed, Kasaragod, Kerala, India 671 316

## अनंतिम प्रमाण-पत्र/PROVISIONAL CERTIFICATE

Sl. No: 04 /2020

Register No: GEC071401

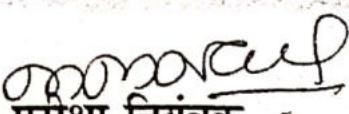
This is to certify that Mr. AHAMED KABEER .M has been declared eligible for the award of the Degree of Doctor of Philosophy in Economics after successful completion of the Open Defence held on 22.07.2020.

The Degree has been awarded in accordance with the provisions of the University Grants Commission (Minimum Standards and Procedure for Award of M.Phil. / Ph.D. Degrees) Regulations, 2009.

Title of the Thesis: "EXPORT PERFORMANCE OF SPICES AND CASHEW IN INDIA SINCE ECONOMIC REFORMS"



दिनांक/Date : 30 SEP 2020

  
पराक्षा नियंत्रक  
Controller of Examinations



# केरल केन्द्रीय विश्वविद्यालय

## CENTRAL UNIVERSITY OF KERALA

(संसद के अधिनियम, वर्ष 2009 द्वारा स्थापित / Established under the Act of Parliament in 2009)

No.CUK/EXAM/Ph.D. Adjudication/Confi./81/16/24

Dated, 29.06.2020

### CERTIFICATE

This is to certify that after adjudication, the thesis submitted by Ms. SUFAIRA C (Reg. No. GEC071205) has been found eligible for the award of the **Degree of Doctor of Philosophy in Economics** under School of Economics, Central University of Kerala, in accordance with the provisions of the UGC (Minimum Standards and Procedure for Award of Ph.D. Degree) Regulation 2009.

Degree Certificate will be issued subsequently.

Date of Eligibility: 25.06.2020



CONTROLLER OF EXAMINATIONS



# केरल केंद्रीय विश्वविद्यालय CENTRAL UNIVERSITY OF KERALA

(संसद के अधिनियम, 2009 द्वारा स्थापित/Established by an Act of Parliament, 2009)

तेजस्विनी हिल्स, पेरिया डाक, कासरगोड, केरल, भारत - 671 316  
Tejaswini Hills, Periyar P.O, Kasaragod, Kerala, India 671 316

## अनंतिम प्रमाण-पत्र/PROVISIONAL CERTIFICATE

Sl. No: 02 /2020

Register No: EME071606

This is to certify that Ms. RINI E. STEPHEN has been declared eligible for the award of the Degree of Doctor of Philosophy in Education after successful completion of the Open Defence held on 27.01.2020.

The Degree has been awarded in accordance with the provisions of the University Grants Commission (Minimum Standards and Procedure for Award of M.Phil. / Ph.D. Degrees) Regulations, 2009.

Title of the Thesis: "EFFECTIVENESS OF EVIDENCE BASED REASONING STRATEGY IN BIOLOGY ON SCIENTIFIC TEMPERAMENT AND GREEN CULTURE AMONG SECONDARY SCHOOL STUDENTS OF KERALA"



*ममाम*  
परीक्षा नियंत्रक

दिनांक/Date : 24 JUN 2020

Controller of Examinations



# केरल केंद्रीय विश्वविद्यालय CENTRAL UNIVERSITY OF KERALA

(संसद के अधिनियम, 2009 द्वारा स्थापित/Established by an Act of Parliament, 2009)

तेजस्विनी हिल्स, पेरिया डाक, कासरगोड, केरल, भारत - 671 316

Tejaswini Hills, Periyar P.O, Kasaragod, Kerala, India 671 316

## अनंतिम प्रमाण-पत्र/PROVISIONAL CERTIFICATE

Sl. No: 13 /2020

Register No: PED071604

This is to certify that **Mr. SHAREEF N.M** has been declared eligible for the award of the Degree of **Doctor of Philosophy in Education** after successful completion of the Open Defence held on 21.07.2020.

The Degree has been awarded in accordance with the provisions of the University Grants Commission (Minimum Standards and Procedure for Award of M.Phil. / Ph.D. Degrees) Regulations, 2009.

Title of the Thesis: **“EFFECTIVENESS OF PSYCHO SOCIAL ADJUSTMENT TRAINING MODEL ON SELF ESTEEM AND SOCIAL ANXIETY AMONG ORPHAN STUDENTS AT SECONDARY LEVEL”**



दिनांक/Date : 14 OCT 2020

*monaresh*  
परीक्षा नियंत्रक  
Controller of Examinations



# केरल केंद्रीय विश्वविद्यालय CENTRAL UNIVERSITY OF KERALA

(संसद के अधिनियम, 2009 द्वारा स्थापित/Established by an Act of Parliament, 2009)

तेजस्विनी हिल्स, पेरिया डाक, कासरगोड, केरल, भारत -671 316

Tejaswini Hills, Periyar P.O, Kasaragod, Kerala, India 671 316

## अनंतिम प्रमाण-पत्र/PROVISIONAL CERTIFICATE

Sl. No: 14 /2020

Register No: PED071601

This is to certify that **Mr. ALI MUBARAK. B.B** has been declared eligible for the award of the Degree of **Doctor of Philosophy in Education** after successful completion of the Open Defence held on 11.06.2020.

The Degree has been awarded in accordance with the provisions of the University Grants Commission (Minimum Standards and Procedure for Award of M.Phil. / Ph.D. Degrees) Regulations, 2009.

Title of the Thesis: **“EFFECT OF A MODEL BASED ON VYGOTSKIAN SOCIOCULTURAL THEORY IN SECOND LANGUAGE ACQUISITION AMONG SECONDARY SCHOOL STUDENTS OF LAKSHADEEP”**



दिनांक/Date : 14 OCT 2020

*मानव*  
परीक्षा नियंत्रक  
Controller of Examinations



# केरल केंद्रीय विश्वविद्यालय CENTRAL UNIVERSITY OF KERALA

(संसद के अधिनियम, 2009 द्वारा स्थापित/Established by an Act of Parliament, 2009)

तेजस्विनी हिल्स, पेरिया डाक, कासरगोड, केरल, भारत - 671 316

Tejaswini Hills, Periyap.O, Kasaragod, Kerala, India 671 316

## अनंतिम प्रमाण-पत्र/PROVISIONAL CERTIFICATE

Sl. No: 01 /2020

Register No: PED071605

This is to certify that Ms. NIKHITHA RAJU has been declared eligible for the award of the Degree of **Doctor of Philosophy in Education** after successful completion of the Open Defence held on 03.02.2020.

The Degree has been awarded in accordance with the provisions of the University Grants Commission (Minimum Standards and Procedure for Award of M.Phil. / Ph.D. Degrees) Regulations, 2009.

Title of the Thesis: **"KRASHEN'S MONITOR THEORY BASED PACKAGE FOR ENHANCING ENGLISH LANGUAGE PROFICIENCY OF SECONDARY SCHOOL STUDENTS"**



दिनांक/Date : 24 JUN 2020

*mona*  
परीक्षा नियंत्रक

Controller of Examinations



# केंद्रीय विश्वविद्यालय

## CENTRAL UNIVERSITY OF KERALA

(संसद के अधिनियम, 2009 हासा स्थापित/Established by an Act of Parliament, 2009)  
तेजस्विनी हिल्स, पेरिया डाक, कासरगोड, केरल, भारत - 671 316  
Tejaswini Hills, Periyadak, Kasaragod, Kerala, India 671 316

### अनंतिम प्रमाण-पत्र/PROVISIONAL CERTIFICATE

Sl. No: 12 /2020

Register No: PED071603

This is to certify that Ms. VRINDA VIJAYAN has been declared eligible for the award of the Degree of Doctor of Philosophy in Education after successful completion of the Open Defence held on 10.06.2020.

The Degree has been awarded in accordance with the provisions of the University Grants Commission (Minimum Standards and Procedure for Award of M.Phil. / Ph.D. Degrees) Regulations, 2009.

Title of the Thesis: "TECHNOLOGICAL PEDAGOGICAL CONTENT KNOWLEDGE STRATEGIES FOR ENHANCING MATHEMATICAL ABILITY OF HIGHER SECONDARY SCHOOL STUDENTS"



  
परीक्षा नियंत्रक

दिनांक/Date : 14 OCT 2020

Controller of Examinations



# केरल केंद्रीय विश्वविद्यालय CENTRAL UNIVERSITY OF KERALA

(संसद के अधिनियम, 2009 द्वारा स्थापित/Established by an Act of Parliament, 2009)

तेजस्विनी हिल्स, पेरिया डाक, कासरगोड, केरल, भारत -671 316

Tejaswini Hills, Periyed, Kasaragod, Kerala, India 671 316

## अनंतिम प्रमाण-पत्र/PROVISIONAL CERTIFICATE

Sl. No: 11 /2020

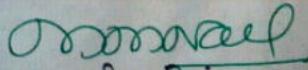
Register No: EME071607

This is to certify that **Ms. A SMITHA** has been declared eligible for the award of the Degree of **Doctor of Philosophy in Education** after successful completion of the Open Defence held on 28.07.2020.

The Degree has been awarded in accordance with the provisions of the University Grants Commission (Minimum Standards and Procedure for Award of M.Phil. / Ph.D. Degrees) Regulations, 2009.

Title of the Thesis: **“EFFECTIVENESS OF MULTI-STRATEGY LIFE SKILLS EDUCATION PROGRAMME ON ENHANCING TOLERANCE AMONG SECONDARY SCHOOL STUDENTS”**



  
परीक्षा नियंत्रक

Controller of Examinations

दिनांक/Date : 14 OCT 2020

क्रम सं./Serial No : CUK/17/001140

पंजीकरण सं./Register No : LCL071202



# केंद्रीय विश्वविद्यालय Central University of Kerala

केंद्रीय विश्वविद्यालय के कुलपति, शिक्षिक परिषद् एवं कार्यकारी परिषद्, विधिवत् नियुक्त परीक्षक मंडल के सिफारिशों  
के आधार पर घोषणा करते हैं कि

एलडोस ए वै  
को

वर्ष 2017 में



अंग्रेजी एवं तुलनात्मक साहित्य

में

डॉक्टर ऑफ फिलोसोफी

की उपाधि प्रदान की गई है।

प्रबंध का शीर्षक: डियटर ऑफ टेरर एण्ड ट्रॉमा : वेर्बाटिम डियटर एण्ड पॉलिटिक्स ऑफ पर्फॉर्मेन्स पोस्ट 9/11

The Vice Chancellor, the Academic Council and the Executive Council  
of the Central University of Kerala, on the recommendations of the duly appointed Board of Examiners,  
hereby declare that

*ELDOSE A.Y.*

has been awarded the Degree of

**DOCTOR OF PHILOSOPHY**

in

**English & Comparative Literature**

in the year 2017

Title of Thesis: Theatre of Terror and Trauma: Verbatim Theatre and Politics of  
Performance Post 9/11

विश्वविद्यालय की मुहर के तहत / Given under the Seal of the University



कासरगोड / Kasargod - 671316  
तारीख / Date : 08 JUN 2017

*Sopan Kumar*  
कुलपति  
VICE CHANCELLOR



केरल केन्द्रीय विश्वविद्यालय  
CENTRAL UNIVERSITY OF KERALA

(संसद के अधिनियम, वर्ष 2009 द्वारा स्थापित / Established under the Act of Parliament in 2009)

No.CUK/EXAM/Ph.D. Adjudication/Confi./81/16/22

Dated, 09.03.2020

## CERTIFICATE

This is to certify that, after adjudication of the thesis submitted by Ms. MANJU. V.V (Reg.No.LCL071403), has been found eligible for the award of the **Degree of Doctor of Philosophy** in English and Comparative Literature under School of Languages and Comparative Literature, Central University of Kerala in accordance with the provisions of the UGC (minimum standards and procedure for award of Ph.D. Degree) Regulation 2009.

Degree Certificate will be issued subsequently.

Date of Eligibility: 25.02.2020

CONTROLLER OF EXAMINATIONS





# केरल केन्द्रीय विश्वविद्यालय

## CENTRAL UNIVERSITY OF KERALA

संसद के अधिनियम, वर्ष 2009 द्वारा स्थापित / Established under the Act of Parliament in 2009

No.CUK/EXAM/Ph.D. Adjudication/Confi./81/16/28

Dated, 25.11.2020

### CERTIFICATE

This is to certify that after adjudication, the thesis submitted by Ms. **RUKHAYA MOHAMMAD KUNHI** (Reg. No. LCL071304) has been found eligible for the award of the **Degree of Doctor of Philosophy** in English and Comparative Literature under School of Languages and Comparative Literature, Central University of Kerala, in accordance with the provisions of the UGC (Minimum Standards and Procedure for Award of Ph.D. Degree) Regulation 2009.

Degree Certificate will be issued subsequently.

**Date of Eligibility: 15.10.2020**

*onwards*  
25.11.2020

**CONTROLLER OF EXAMINATIONS**

*[Signature]* *[Signature]* *[Signature]*





# 미세조류의 자가포식 기능 및 조절 기작

**Functions and regulation mechanisms of  
autophagy in microalgae**

**Tran Quynh Giao**

**A Dissertation Submitted in Partial Fulfillment of Requirements  
For the Degree of Doctor of Philosophy**

**February 2020**

**UNIVERSITY OF SCIENCE AND TECHNOLOGY  
Department of Environmental Biotechnology**

**Supervisor Hee-Sik Kim  
Co-supervisor Rishiram Ramanan**

The logo for 'Collection @ ust' is shown. It features a stylized 'c' icon followed by the text 'Collection @ ust'.

## 공동지도교수 위촉 신청서

결재	담당	팀장	처장	총장

## 1. 학생 인적사항

성명	Tran Quynh Giao	학번	01512008
학위과정	박사과정	입학시기	2015년도 전기
이수학기	8학기	지도교수	김희식

## 2. 공동지도교수 신청자

성명	Rishiram Ramanan	전공	Environmental Science
소속기관	Central University of Kerala	학부	이학

## 3. 공동지도의 필요성

Tran Quynh Giao 학생의 학위논문관련 연구 및 논문 작정을 위해 공동지도교수로서 Rishiram Ramanan 교수의 지도가 필요하다고 판단하여 신청함.

## 4. 학생 공동지도 역할 분담

지도교수(김희식)	공동지도교수(Rishiram Ramanan)
· 학위논문에 관한 연구지도	· 학위논문에 관한 연구방향 설정 자문
· 학업 및 생활지도 전반	· 학위논문에 관련된 연구 분야 지도
· 학생의 수강지도	· 논문작성 관련 연구자문

상기와 같이 공동지도교수 위촉을 신청하오니 증인하여 주시기 바랍니다.

2019년 02월 19일

학생 : Tran Quynh Giao

지도교수 : 김희식

공동지도교수 신청자 : Rishiram Ramanan

전공책임교수 : 권오석

과학기술연합대학원대학교 총장 귀하

# The University of Science and Technology



By The Authority of The University Committee and Upon the Recommendation of  
The Faculty of The University of Science and Technology, Hereby Confers Upon

## TRAN QUYNH GIAO

The Degree of

### Doctor of Philosophy

In Recognition of The Completion of Advanced Study in

**KRIBB School**  
**Biotechnology(Environmental Biotechnology)**

In Testimony whereof The Undersigned Have Subscribed  
Their Names and Affixed The Seal of The University  
on The Twenty-ninth day of February, Two thousand twenty

The signature of Seung Jin Kim, Representative Professor of KRIBB School.

REPRESENTATIVE PROFESSOR OF KRIBB SCHOOL

The signature of J.S. Seung Jin Kim, President of Korea Research Institute of Bioscience & Biotechnology.

PRESIDENT OF KOREA RESEARCH INSTITUTE OF BIOSCIENCE & BIOTECHNOLOGY

The signature of Keehwan Kim, President of University of Science and Technology.

PRESIDENT OF UNIVERSITY OF SCIENCE AND TECHNOLOGY





பாரதியார் பல்கலைக்கழகம்  
**BHARATHIAR UNIVERSITY**  
COIMBATORE - 641 046, TAMILNADU, INDIA.

State University | Re-accredited with "A" Grade by NAAC | Ranked 14<sup>th</sup> among Indian Universities by MHRD-NIRF

COE/Ph.D./2017/ 254

Date: 14.02.2017

From

Dr. K.K. Suresh  
Research Coordinator  
Examination Section  
Bharathiar University  
Coimbatore – 641 046.

To

1. Dr. D. Mohan  
Professor  
Dept. of Chemical Engineering  
Anna University  
Chennai – 600 025.
2. Dr. M. Muthukumar  
Assistant Professor [On-Lien]  
Dept. of Environmental Sciences  
Bharathiar University,  
Coimbatore – 641 046.

Dear Sir,

Sub: Ph.D. Public Viva-voce examinations of **T. Ramya**- reg.

\*\*\*\*\*

I am by direction to inform you that **Dr.D. Mohan, Professor, Dept. of Chemical Engineering, Anna University, Chennai** is appointed as an external, examiner to conduct Public Viva voce examination. **T. Ramya, Department of Environmental Sciences, Bharathiar University, Coimbatore** The external examiner is requested to express his/her willingness for the same on or before 22.02.2017 or at an early date to both the Research co-ordinator and to the supervisor/convenor. On receipt of acceptance from the external examiner, the reports will be sent to the external examiner by this office for his/ her reference.

The date and time of Public viva-voce examination convenient to both the external examiner and the supervisor/convenor may be fixed after 15 days from 22.02.2017, on mutual consultation **both the Guide and External examiner should inform the date of viva-voce** to this office at least 15 days before the date of Viva-Voce examination.

The supervisor/convenor is requested to issue the notification specifying the date, time and venue for the conduct of Viva-voce examination only after receiving confirmation from this office for the date of viva-voce examination.

Yours faithfully,

K. K. Suresh  
Research Coordinator

Encl: Copy of the Synopsis and Regulations



பாரதியார் பல்கலைக்கழகம்  
**BHARATHIAR UNIVERSITY**  
COIMBATORE - 641 046, TAMILNADU, INDIA.

State University | Re-accredited with "A" Grade by NAAC | Ranked 14<sup>th</sup> among Indian Universities by MHRD-NIRF

Ref.No.COE/Ph.D/2018/1807

Date: 04/09/2018

**NOTIFICATION**

It is hereby notified that subject to ratification of the Syndicate of the University, after considering the reports of the duly constituted Board of Examiners on the thesis submitted and public Viva-Voce Examination taken by the undermentioned candidate for the Ph.D. Degree, has accepted the thesis and declared him/her qualified for the award of the Degree of Doctor of Philosophy (Ph.D.) of Bharathiar university with effect from **20/07/2018**

The Candidate may take the degree at the ensuing Convocation. The thesis can be published if the candidate so desires.

Name of the Candidate	: SELVENDIRAN P
Name of the Guide	: Dr. M. Muthukumar Professor, Department of Environmental Science, Bharathiar University, Coimbatore - 641 046
Department	: Environmental Science
Institution	: Bharathiar University
Subject	: ENVIRONMENTAL SCIENCE
Faculty	: Science
Title of the Thesis	: Studies on electrochemical treatment for the removal of pharmaceutical contaminated wastewater by graphite and RuO <sub>2</sub> /IrO <sub>2</sub> /TaO <sub>2</sub> -coated titanium anode
Date of Registration	: 01/01/2013
Mode of Research	: Full-time

*Pariv*

Controller of Examinations/c  
Bharathiar University,  
Coimbatore -641 046.

To  
Candidate through the Head of the Department/Principal/Director  
Registrar, Bharathiar University  
Head of the Department concerned  
Supervisor of the Candidate  
University Librarian  
Convocation Section



பாரதியார் பல்கலைக்கழகம்  
**BHARATHIAR UNIVERSITY**  
COIMBATORE - 641 046, TAMILNADU, INDIA.

State University | Re-accredited with "A" Grade by NAAC | Ranked 14<sup>th</sup> among Indian Universities by MHRD-NIRF

Ref.No.COE/Ph.D/2018/1807

Date: 04/09/2018

**NOTIFICATION**

It is hereby notified that subject to ratification of the Syndicate of the University, after considering the reports of the duly constituted Board of Examiners on the thesis submitted and public Viva-Voce Examination taken by the undermentioned candidate for the Ph.D. Degree, has accepted the thesis and declared him/her qualified for the award of the Degree of Doctor of Philosophy (Ph.D.) of Bharathiar university with effect from **20/07/2018**

The Candidate may take the degree at the ensuing Convocation. The thesis can be published if the candidate so desires.

Name of the Candidate	:	<b>HARIPRASAD P</b>
Name of the Guide	:	Dr. M. Muthukumar Professor, Department of Environmental Science, Bharathiar University, Coimbatore - 641 046
Department	:	Environmental Science
Institution	:	Bharathiar University
Subject	:	ENVIRONMENTAL SCIENCE
Faculty	:	Science
Title of the Thesis	:	Studies on heterogeneous catalytic ozonation of bisphenol a using activated carbon supported bimetallic catalysts
Date of Registration	:	01/01/2013
Mode of Research	:	Full-time

Controller of Examinations/  
Bharathiar University,  
Coimbatore -641 046.

To  
Candidate through the Head of the Department/Principal/Director  
Registrar, Bharathiar University  
Head of the Department concerned  
Supervisor of the Candidate  
University Librarian  
Convocation Section



பாரதியார் பல்கலைக்கழகம்  
BHARATHIAR UNIVERSITY  
COIMBATORE - 641 046, TAMILNADU, INDIA

State University

Re-Accredited with "A" Grade by NAAC

Ranked 14<sup>th</sup> among Indian Universities by MHRD-NIRF

Ref.No.COE/Ph.D/2019/10205

Date: 25/10/2019

**NOTIFICATION**

It is hereby notified that subject to ratification of the Syndicate of the University, after considering the reports of the duly constituted Board of Examiners on the thesis submitted and public Viva-Voce Examination taken by the undermentioned candidate for the Ph.D. Degree, has accepted the thesis and declared him/her qualified for the award of the Degree of Doctor of Philosophy (Ph.D.) of Bharathiar university with effect from 27/09/2019

The Candidate may take the degree at the ensuing Convocation. The thesis can be published if the candidate so desires.

Name of the Candidate	:	HANISH MOHAMMED C H
Name of the Guide	:	Dr. M. Muthukumar Professor and Head, Department of Environmental Sciences, Central University of Kerala, Kasaragod - 671 316. Kerala
Department	:	Environmental Sciences
Institution	:	Bharathiar University
Subject	:	ENVIRONMENTAL SCIENCES
Faculty	:	Science
Title of the Thesis	:	Production of electricity using microbial fuel cell utilizing untreated human urine, human faces and food processing wastewater
Date of Registration	:	01/09/2014
Mode of Research	:	Full-time

Controller of Examinations i/c  
Bharathiar University,  
Coimbatore -641 046.

To   
Candidate through the Head of the Department/Principal/Director  
Registrar, Bharathiar University  
Head of the Department concerned  
Supervisor of the Candidate  
University Librarian  
Convocation Section

*25/10/19*



பாரதியார் பல்கலைக்கழகம்

BHARATHIAR UNIVERSITY

COIMBATORE - 641 046, TAMILNADU, INDIA

State University

Accredited with "A" Grade by NAAC

Ranked 13<sup>th</sup> among Indian Universities by MHRD-NIRF

Ref.No.COE/Ph.D/Noti./2020/4904

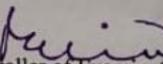
Date: 29/12/2020

### NOTIFICATION

It is hereby notified that subject to ratification of the Syndicate of the University, after considering the reports of the duly constituted Board of Examiners on the thesis submitted and the Online Viva-Voce Examination taken by the undermentioned candidate for the award of Ph.D. Degree, has accepted and declared him/her qualified for the award of the Degree of Doctor of Philosophy (Ph.D.) by Bharathiar university with effect from 27/10/2020.

The Candidate may take the degree at the ensuing Convocation. The thesis can be published if the candidate so desires

Name of the Candidate	: JOSHUA AMIRTHARAJ R
Name of the Guide	: Dr. M. Muthukumar Professor and Head Dept. of Environmental Science Central University of Kerala, Thejaswini Hills, Periya, Kasaragod - 671 316.
Department	: Environmental Sciences
Institution	: R & D Centre, Bharathiar University, Coimbatore
Subject	: ENVIRONMENTAL SCIENCES
Faculty	: Science
Title of the Thesis	: Studies on Waste Management and Energy Recovery from Coffee Processing Wastewater
Date of Registration	: 01/08/2012
Mode of Research	: Part-time Category B

  
Controller of Examinations i/c  
Bharathiar University,  
Coimbatore -641 046.

To

The Candidate through the Head of the Department/Principal/Director  
The Registrar, Bharathiar University  
The Head of the Department concerned  
The Supervisor of the Candidate  
The University Librarian  
The Convocation Section



# केरल केन्द्रीय विश्वविद्यालय

## CENTRAL UNIVERSITY OF KERALA

(संसद के अधिनियम, वर्ष 2009 द्वारा स्थापित / *Established under the Act of Parliament in 2009*)

No.CUK/EXAM/Ph.D. Adjudication/Confi./81/16/33

Dated, 01.03.2021

### CERTIFICATE

This is to certify that after adjudication, the thesis submitted by Mr. **BANDI DHANA SEKHAR REDDY** (Reg. No. GEN071402) has been found eligible for the award of the **Degree of Doctor of Philosophy** in Genomic Science under School of Biological Science; Central University of Kerala, in accordance with the provisions of the UGC (Minimum Standards and Procedure for Award of Ph.D. Degree) Regulation 2009.

Degree Certificate will be issued subsequently.

**Date of Eligibility: 25.02.2021**

**CONTROLLER OF EXAMINATIONS**





# केरल केन्द्रीय विश्वविद्यालय

## CENTRAL UNIVERSITY OF KERALA

(संसद के अधिनियम, वर्ष 2009 द्वारा स्थापित / Established under the Act of Parliament in 2009)

No.CUK/EXAM/Ph.D. Adjudication/Confi./81/16/34

Dated, 01.03.2021

### CERTIFICATE

This is to certify that after adjudication, the thesis submitted by Mr. **MADANGCHANOK IMCHEN** (Reg. No. GEN071509) has been found eligible for the award of the **Degree of Doctor of Philosophy** in Genomic Science under School of Biological Sciences, Central University of Kerala, in accordance with the provisions of the UGC (Minimum Standards and Procedure for Award of Ph.D. Degree) Regulation 2009.

Degree Certificate will be issued subsequently.

Date of Eligibility: 18.02.2021

**CONTROLLER OF EXAMINATIONS**





केरल केन्द्रीय विश्वविद्यालय  
CENTRAL UNIVERSITY OF KERALA  
(Established under the Central Universities Act, 2009)  
Tejaswini Hills, Periyar PO, Kasaragod-671316, Kerala, India.

PROVISIONAL CERTIFICATE

Sl.No: 649/ 2018

Register No: GEN071201

This is to certify that **Mr. /Ms. AMRITHA.A** has been declared eligible for the award of the Degree of **Doctor of Philosophy** in **Genomics & Proteomics** after successful completion of the Open Defence held on 06.10.2017

The Degree has been awarded in accordance with the provisions of the University Grants Commission (Minimum Standards and Procedure for Award of M.Phil./Ph.D Degrees ) Regulations, 2016.

Title of the Thesis: “**Genome Scan and Transcript Profiling in *Rhipicephalus* (B.) *annulatus* Identifies Metabolic Detoxifying Genes with Implications in Acaricide Resistance**”

Date: 14.03.2018



monaresh

*Controller of Examinations*

Signature

Signature



# केरल केंद्रीय विश्वविद्यालय CENTRAL UNIVERSITY OF KERALA

(संसद के अधिनियम, 2009 द्वारा स्थापित/Established by an Act of Parliament, 2009)

तेजस्विनी हिल्स, पेरिया डाक, कासरगोड, केरल, भारत - 671 316

Tejaswini Hills, Periyar P.O, Kasaragod, Kerala, India 671 316

## अनंतिम प्रमाण-पत्र/PROVISIONAL CERTIFICATE

Sl. No: 998 / 2018

Register No: GEN071205

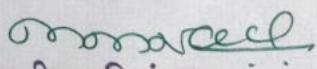
This is to certify that **Ms. THASHI BHARADWAJ. M.** has been declared eligible for the award of the Degree of **Doctor of Philosophy** in **Genomics & Proteomics** after successful completion of the Open Defence held on 28.03.2018.

The Degree has been awarded in accordance with the provisions of the University Grants Commission (Minimum Standards and Procedure for Award of M.Phil. / Ph. D Degrees) Regulations, 2009.

Title of the Thesis: "**Computational Analysis and Expression Profiling of Emu(*Dromaius novaehollandiae*) Transcriptome Identifies Functional Immune Regulatory Elements and Insights into the Complex Immune System**"



दिनांक/Date : 17 JAN 2019

  
परीक्षा नियंत्रक  
Controller of Examinations



केरल केन्द्रीय विश्वविद्यालय  
CENTRAL UNIVERSITY OF KERALA  
(Established under the Central Universities Act, 2009)  
Tejaswini Hills, Periyar PO, Kasaragod-671316, Kerala, India.

PROVISIONAL CERTIFICATE

SLNo: 645/2017

Register No: GEN071204

This is to certify that Mr. Ms. JOBY PULIKKAN has been declared eligible for the award of the Degree of Doctor of Philosophy in Genomics & Proteomics after successful completion of the Open Defence held on 03.11.2017

The Degree has been awarded in accordance with the provisions of the University Grants Commission (Minimum Standards and Procedure for Award of M.Phil./Ph.D. Degrees) Regulations, 2016.

Title of the Thesis: "Metagenome Analysis of Human Gut Microbiome And Its Prospective Influence in Autism"

Date: 08.01.2018

(Seal)

  
Controller of Examinations  
  




# केरल केंद्रीय विश्वविद्यालय Central University of Kerala

केरल केंद्रीय विश्वविद्यालय के कुलपति, शैक्षिक परिषद् एवं कार्यकारी परिषद्, विधिवत् नियुक्त परीक्षक मंडल के सिफारिशों  
के आधार पर घोषणा करते हैं कि

कामेशपांडियन पी

१०

वर्ष 2017 में



डॉक्टर ऑफ फिलोसोफी

三

की उपाधि प्रदान की गई है।

की उपाधि प्रदान की गई है।

**प्रबंध का शीर्षक:** मोलिक्युलार कैरकटेराइसेशन ऑफ इंडियन वाटरफाउल यूसिंग डीएनए मार्क्स

The Vice Chancellor, the Academic Council and the Executive Council  
of the Central University of Kerala, on the recommendations of the duly appointed Board of Examiners,  
hereby declare that

KAMESHPANDIAN P

has been awarded the Degree of

## DOCTOR OF PHILOSOPHY



Title of Thesis: Molecular Characterisation of Indian Waterfowl using DNA Markers

विश्वविद्यालय की मुहर के तहत / Given under the Seal of the University

कासरगोड / Kasargod - 671316  
तारीख / Date : 25 FEB 2019



Markers  
sity  
to Nature,  
कुलपति  
VICE CHANCELLOR



# केरल केंद्रीय विश्वविद्यालय CENTRAL UNIVERSITY OF KERALA

(संसद के अधिनियम, 2009 द्वारा स्थापित/Established by an Act of Parliament, 2009)

तेजस्विनी हिल्स, पेरिया डाक, कासरगोड, केरल, भारत - 671 316

Tejaswini Hills, Periyappa, Kasaragod, Kerala, India 671 316

## अनंतिम प्रमाण-पत्र/PROVISIONAL CERTIFICATE

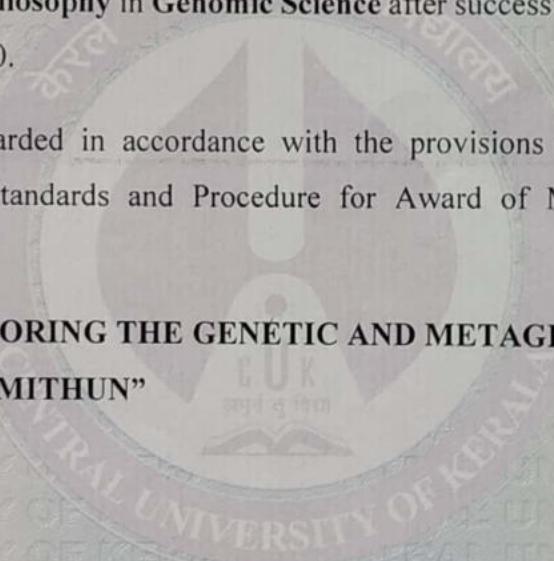
Sl. No: 16 /2020

Register No: GEN071511

This is to certify that **Ms. VANDANA R. PRABHU** has been declared eligible for the award of the Degree of **Doctor of Philosophy** in **Genomic Science** after successful completion of the Open Defence held on 13.10.2020.

The Degree has been awarded in accordance with the provisions of the University Grants Commission (Minimum Standards and Procedure for Award of M.Phil. / Ph.D. Degrees) Regulations, 2009.

Title of the Thesis: "**EXPLORING THE GENETIC AND METAGENOMIC VARIATIONS BETWEEN GAUR AND MITHUN**"

  
परीक्षा नियंत्रक  
Controller of Examinations



# केरल केंद्रीय विश्वविद्यालय

## Central University of Kerala

केरल केंद्रीय विश्वविद्यालय के मुख्य परिषद्, शासकीय परिषद् एवं कार्यालयी परिषद्, विशिष्ट नियुक्त परिषद् एवं विशिष्ट  
के अधीन यह शीर्षक दर्ता हु कि

शमीम सी सी

को

वर्ष 2018 में



अंतर्राष्ट्रीय संबंध एवं राजनीति

में

डॉक्टर ऑफ़ फिलोसोफी

की उपाधि प्रदान की गई है।

प्रबंध का शीर्षक: इन्टरराजिनल ट्रेड रिलेशन्स एवं इन्टर्नॉशनल रेजियनलिस्म ए स्टडी ऑफ़ रेजेन्स टू डिव्हिल

The Vice Chancellor, the Academic Council and the Executive Council  
of the Central University of Kerala, on the recommendations of the duly appointed Board of Examiners,  
hereby declare that

*SHAMEEM. C.C.*

has been awarded the Degree of

**DOCTOR OF PHILOSOPHY**

in

**International Relations and Politics**

in the year 2018



Title of Thesis: Intra-Regional Trade Relations and Economic Regionalism: A Study with  
Reference to BRICS

विश्वविद्यालय की मुहर के तहत / Given under the Seal of the University



*[Signature]*  
मुख्य परिषद्  
VICE CHANCELLOR

कासरगोड / Kasargod - 671316  
तारीख / Date : 25 FEB 2019



# केरल केंद्रीय विश्वविद्यालय Central University of Kerala

केरल केंद्रीय विश्वविद्यालय के कुलपति, शैक्षिक परिषद् एवं कार्यकारी परिषद्, विधिवत् नियुक्त परीक्षक मंडल के सिफारिशों  
के आधार पर घोषणा करते हैं कि

अलीना तोमस  
को

वर्ष 2019 में



अंतर्राष्ट्रीय संबंध एवं राजनीति

में

डॉक्टर ऑफ़ फिलोसफी

की उपाधि प्रदान की गई है।

प्रबंध का शीर्षक: इंडियास क्वेस्ट फॉर एनोर्जी सेक्यूरिटी: चार्लेजेस एण्ड पॉलिसी ऑफ्सेस

The Vice Chancellor, the Academic Council and the Executive Council  
of the Central University of Kerala, on the recommendations of the duly appointed Board of Examiners,  
hereby declare that

*ALIEENA THOMAS*

has been awarded the Degree of

**DOCTOR OF PHILOSOPHY**

in

International Relations and Politics

in the year 2019

Title of Thesis: India's Quest for Energy Security: Challenges and Policy Options.

विश्वविद्यालय की मुहर के तहत / Given under the Seal of the University



कासरगोड / Kasargod - 671320  
तारीख / Date : 19 FEB 2020

*Loganathan*  
कुलपति  
VICE CHANCELLOR



॥ अंतरी पेटवू ज्ञानज्योत ॥

# North Maharashtra University

## Jalgaon (Maharashtra), India



### Notification for the DEGREE OF DOCTOR OF PHILOSOPHY (Ph.D.)

It is hereby notified that **Hasani Sunny Sureshkumar** Research Student, Department of Law, Central University of Kerala, Thiruvalla Campus. vide registration No.NMU/11/Ph.D/Law/46/2013 dated 23.01.2012 has successfully completed the Ph.D. programme of this University in accordance with **UGC minimum standards and procedure for awards of M.Phil/Ph.D. degree Regulation, 2009 published in the Gazette of India, No. 28 dated July 11-17, 2009 in Part III, Section 4.**

The report of the referees appointed to examine and adjudicate the thesis submitted by **Hasani Sunny Sureshkumar** is accepted and he is eligible for the award of the Ph.D. degree of this University. The degree certificate will be issued in the ensuing convocation of this University. The details of his Ph.D. programme are given below:

Name of the Candidate	<b>Hasani Sunny Sureshkumar</b>		
Ph.D. Entrance Test (PET)	<b>Exempted</b>		
Date of Registration	<b>23.01.2012</b>		
Grades obtained in Pre-Ph.D. Course Work	<b>Paper – I</b>	<b>Paper – II</b>	<b>Paper – III</b>
	<b>B</b>	<b>B</b>	<b>B</b>
Title of the thesis	<b>“Women Welfare Laws With Reference to Adivasis in North Maharashtra – An Empirical Study.”</b>		
Research Guide	<b>Dr. Jayasankar K.I.</b>		
Subject	<b>Law</b>		
Faculty	<b>Humanities</b>		
Date of Pre-Ph.D. submission presentation	<b>02.03.2017</b>		
Date of submission of the thesis	<b>10.04.2017</b>		
Date of Viva-Voce	<b>10.08.2018</b>		

No. NMU/11/Ph.D./Law/**3245**/2018, Date : 10.08.2018

**(Prof. A.B. Chaudhari)**  
Officiating Director,  
Board of Examinations and Evaluation

**(Prof. P.P. Mahulikar)**  
Pro-Vice Chancellor



# HIMALAYAN UNIVERSITY

[Established by the Government of Arunachal Pradesh & Recognized as per Section 2(f) of UGC Act 1956]

## RESULT NOTIFICATION

(DOCTOR OF PHILOSOPHY)

**MR/MS. RAJI KUMAR. S., S/O MR. SIVASANKARA PILLAI**, bearing University Registration No:- T088102010213002, pursued the Doctoral (Ph. D. research) Program in the DEPARTMENT OF LAW in the FACULTY OF LAW on the Topic: "**IMPACT OF MULTIPLE MARRIAGES AND RESULTANT POPULATION IN MUSLIM COMMUNITY UPON THE SOCIETY, A CRITICAL STUDY.**" Under the supervision of DR. GIREESH KUMAR J based on favorable reports of the evaluators of his/her thesis and recommendations of the viva- voce board, the scholar concerned, is declared qualified for the award of the Degree of DOCTOR OF PHILOSOPHY (Ph. D.) of this University in LAW in the FACULTY OF LAW.



*H. Deon*  
Dy. Controller of Examination

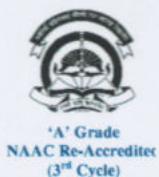
Ref. No: HU/REC/P/T08/10-13/337

Dated: 22/09/2017

Note: Errors & Omissions accepted.

### Copy to:

1. The Vice Chancellor, Himalayan University
2. The Registrar, Himalayan University
3. The Librarian, Himalayan University
4. The Dean (Research), Himalayan University
5. Concerned Supervisor/Scholar
6. Master File



'A' Grade  
NAAC Re-Accredited  
(3<sup>rd</sup> Cycle)

॥ अंतरी पेटवू ज्ञानज्योत ॥

**Kavayitri Bahinabai Chaudhari  
North Maharashtra University, Jalgaon, (M.S.), India**  
(Formerly North Maharashtra University, Jalgaon)



**Notification for the  
DEGREE OF DOCTOR OF PHILOSOPHY (Ph.D.)**

It is hereby notified that **Jawale Rajshree Jagannath** Research Student,

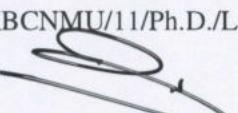
Rayat Shikshan Sansthas, Ismailsaheb Mulla Law College, Satara, vide registration No.NMU/11/Ph.D./Law/47/2013, dated 23.01.2012 has successfully completed the Ph.D. programme of this University in regular mode in accordance with **UGC minimum standards and procedure for awards of M.Phil/Ph.D. degree Regulation, 2009 published in the Gazette of India, No. 28 dated July 11-17, 2009 in Part III, Section 4.**

The report of the referees appointed to examine and adjudicate the thesis submitted by **Jawale Rajshree Jagannath** is accepted and she is eligible for the award of the Ph.D. degree of this University. The degree certificate will be issued in the ensuing convocation of this University. The details of her Ph.D. programme are given below:

Name of the Candidate	<b>Jawale Rajshree Jagannath</b>		
Ph.D. Entrance Test (PET)	<b>Exempted</b>		
Date of Registration	<b>23.01.2012</b>		
Grades obtained in Pre-Ph.D. Course Work	<b>Paper – I</b>	<b>Paper – II</b>	<b>Paper – III</b>
	<b>C</b>	<b>B</b>	<b>B</b>
Title of the thesis	<b>“The Right of Children to Free and Compulsory Education Act 2009 - Problems and Perspectives in India”</b>		
Research Guide	<b>Dr. Jayasankar K. I.</b>		
Subject	<b>Law</b>		
Faculty	<b>Humanities</b>		
Date of Pre-Ph.D. submission presentation	<b>01.02.2018</b>		
Date of submission of the thesis	<b>02.05.2018</b>		
Date of Viva-Voce	<b>03.02.2020</b>		

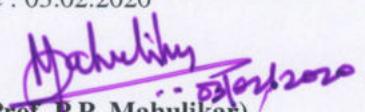
No.KBCNMU/11/Ph.D./Law/ **612** /2020,

Date : 03.02.2020

  
**(B. P. Patil)**

Director,

Board of Examinations and Evaluation

  
**(Prof. P.P. Mahulikar)**

Pro-Vice Chancellor



# केंद्रीय विश्वविद्यालय

## Central University of Kerala

गणित एवं भौतिक विज्ञान स्कूल  
School of Mathematical and Physical Sciences

केंद्रीय विश्वविद्यालय के कुलपति, शैक्षिक परिषद् एवं कार्यकारी परिषद्, विधिवत् नियुक्त परीक्षक मंडल के सिफारिशों  
के आधार पर घोषणा करते हैं कि

अजित आर

को



वर्ष 2016 में

भौतिक विज्ञान

में

डॉक्टर ऑफ फिलोसफी

की उपाधि प्रदान की गई है।

प्रबंध का शीर्षक: प्लास्मोन एसिस्टेड ऑप्टिकल प्रोपर्टीज ऑफ लीनियर एण्ड नॉन-लीनियर नानो सिस्टम्स

The Vice Chancellor, the Academic Council and the Executive Council  
of the Central University of Kerala, on the recommendations of the duly appointed Board of Examiners,  
hereby declare that

*AJITH R*

has been awarded the Degree of

**DOCTOR OF PHILOSOPHY**

in

Physics

in the year 2016

Title of Thesis: Plasmon Assisted Optical Properties of Linear and Non-Linear Nano  
Systems

विश्वविद्यालय की मुहर के तहत / Given under the Seal of the University

कासरगोड / Kasargod - 671316  
तारीख / Date : 06.06.2017



*[Signature]*  
कुलपति  
VICE CHANCELLOR

क्रम सं./Serial No : CUK/17/001146

पंजीकरण सं./Register No : MPH071307



# केरल केंद्रीय विश्वविद्यालय

## Central University of Kerala

केरल केंद्रीय विश्वविद्यालय के कुलपति, शैक्षिक परिषद् एवं कार्यकारी परिषद्, विधिवत् नियुक्त परीक्षक मंडल के सिफारिशों  
के आधार पर घोषणा करते हैं कि

निर्मला मरिया डी'सूज़ा  
को

वर्ष 2017 में



भौतिक विज्ञान  
में  
डॉक्टर ऑफ फिलोसफी  
की उपाधि प्रदान की गई है।

प्रबंध का शीर्षक: कंप्यूटेशनल मॉडेलिंग ऑफ ओप्टिकल डिवाइसेस बेसेड ऑन 1 डी एण्ड 2 डी फॉटोनिक  
क्रिस्टल्स

The Vice Chancellor, the Academic Council and the Executive Council  
of the Central University of Kerala, on the recommendations of the duly appointed Board of Examiners,  
hereby declare that

*NIRMALA MARIA D'SOUZA*

has been awarded the Degree of

**DOCTOR OF PHILOSOPHY**

in

**Physics**

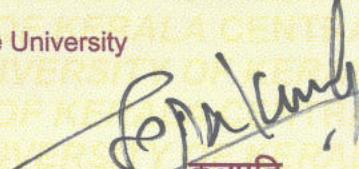
in the year 2017

Title of Thesis: Computational Modelling of Optical Devices Based on 1D and 2D Photonic  
Crystals

विश्वविद्यालय की मुहर के तहत / Given under the Seal of the University



कासरगोड / Kasargod - 671316  
तारीख / Date : 25 FEB 2019

  
कुलपति  
VICE CHANCELLOR



केरल केन्द्रीय विश्वविद्यालय  
CENTRAL UNIVERSITY OF KERALA  
(Established under the Central Universities Act, 2009)  
Tejaswini Hills, Periyar PO, Kasaragod-671316, Kerala, India.

PROVISIONAL CERTIFICATE

SI.No: 644/ 2017

Register No: MPH071308

This is to certify that **Mr. /Ms. Salini K.** has been declared eligible for the award of the Degree of **Doctor of Philosophy** in **Physics** after successful completion of the Open Defence held on 13.11.2017

The Degree has been awarded in accordance with the provisions of the University Grants Commission (Minimum Standards and Procedure for Award of M.Phil./Ph.D Degrees ) Regulations, 2016.

Title of the Thesis: "Computational Study of Excitons in CdSe/CdS Based Nanocrystals"

Date: 05.12.2017



monaie  
Controller of Examinations  




# केरल केंद्रीय विश्वविद्यालय

## Central University of Kerala

केरल केंद्रीय विश्वविद्यालय के कुलपति, शैक्षिक परिषद् एवं कार्यकारी परिषद्, विधिवत् नियुक्त परीक्षक मंडल के सिफारिशों  
के आधार पर घोषणा करते हैं कि

चित्रा लेखा सी एस  
को

वर्ष 2018 में



भौतिक विज्ञान  
में  
डॉक्टर ऑफ़ फिलोसफी  
की उपाधि प्रदान की गई है।

प्रबंध का शीर्षक: लेडप्री मैग्नेटोइलेक्ट्रिक हेटेरोस्ट्रक्चर्चर्स ब्रेसेड ऑन नैनोस्केल नियोबेट्स फॉर माइक्रो/नैनो  
इलेक्ट्रॉनिक एण्ड एनेजी हार्वेस्टर एप्लिकेशन्स

The Vice Chancellor, the Academic Council and the Executive Council  
of the Central University of Kerala, on the recommendations of the duly appointed Board of Examiners,  
hereby declare that

*CHITRA LEKHA. C. S*

has been awarded the Degree of

**DOCTOR OF PHILOSOPHY**

in

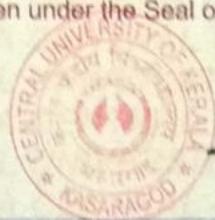
**Physics**

in the year 2018

Title of Thesis: Lead-Free Magnetoelectric Heterostructures Based on Nanoscale Niobates  
for Micro/Nano Electronic and Energy Harvester Applications

विश्वविद्यालय की मुहर के तहत / Given under the Seal of the University

कासरगोड / Kasargod - 671316  
तारीख / Date : 25 FEB 2019



*S. Nair*  
कुलपति  
VICE-CHANCELLOR

क्रम सं./Serial No : CUK/18/001508

पंजीकरण सं./Register No : MPH071305



# केंद्रीय विश्वविद्यालय Central University of Kerala

केंद्रीय विश्वविद्यालय के कुलपति, शैक्षिक परिषद् एवं कार्यकारी परिषद्, विधिवत् नियुक्त परीक्षक मंडल के सिफारिशों  
के आधार पर घोषणा करते हैं कि

चित्रा एम

को

वर्ष 2018 में



भौतिक विज्ञान

में

डॉक्टर ऑफ फिलोसफी

की उपाधि प्रदान की गई है।

प्रबंध का शीर्षक: सिंथेसिस एंड मैग्नेटिक प्रोपर्टीज ऑफ सम स्पाइनेल नैनोपार्टिकल्स

The Vice Chancellor, the Academic Council and the Executive Council  
of the Central University of Kerala, on the recommendations of the duly appointed Board of Examiners,  
hereby declare that

CHITHRA M

has been awarded the Degree of

DOCTOR OF PHILOSOPHY

in

Physics

in the year 2018

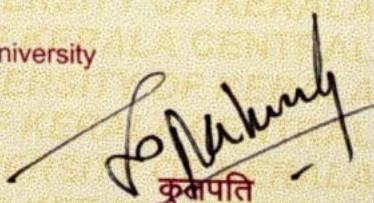
Title of Thesis: Synthesis and Magnetic Properties of Some Spinel Nanoparticles

विश्वविद्यालय की मुहर के तहत / Given under the Seal of the University

कासरगोड / Kasargod - 671316

तारीख / Date : 25 FEB 2019



  
कुलपति  
VICE CHANCELLOR



# केरल केंद्रीय विश्वविद्यालय Central University of Kerala

केरल केंद्रीय विश्वविद्यालय के कुलपति, शैक्षिक परिषद् एवं कार्यकारी परिषद्, विधिवत् नियुक्त परीक्षक मंडल के सिफारिशों  
के आधार पर घोषणा करते हैं कि

शम्लत ए  
को

वर्ष 2019 में



भौतिक विज्ञान  
में  
डॉक्टर ऑफ फिलोसफी  
की उपाधि प्रदान की गई है।

प्रबंध का शीर्षक: डायनामिक्स ऑफ हेवी अयन्ट इन्ड्यूस्ट्री फ्यूशन -फिशन रिएक्शन्स एट एनजीस नियर एण्ड  
एबोउ द कूलम्ब बैरियर

The Vice Chancellor, the Academic Council and the Executive Council  
of the Central University of Kerala, on the recommendations of the duly appointed Board of Examiners,  
hereby declare that

*SHAMLATH. A*

has been awarded the Degree of

**DOCTOR OF PHILOSOPHY**

in

Physics

in the year 2019

Title of Thesis: Dynamics of Heavy Ion induced fusion –fission reactions at energies near  
and above the coulomb barrier.

विश्वविद्यालय की मुहर के तहत / Given under the Seal of the University



*Shamlath*  
कुलपति  
VICE CHANCELLOR



# केरल केंद्रीय विश्वविद्यालय Central University of Kerala

केरल केंद्रीय विश्वविद्यालय के कुलपति, शैक्षिक परिषद् एवं कार्यकारी परिषद्, विधिवत् नियुक्त परीक्षक मंडल के सिफारिशों  
के आधार पर घोषणा करते हैं कि

लिव्ना चाक्को

को

वर्ष 2019 में



भौतिक विज्ञान

में

डॉक्टर ऑफ फिलोसफी

की उपाधि प्रदान की गई है।

प्रबंध का शीर्षक: ग्रोथ, कैरेक्टराइसेशन एण्ड एप्लिकेशन ऑफ ट्रू-डायमेंशनेल मॉलिब्डिनम डाइसल्फाइड  
(एमओएसटू) बेसड नैनोस्ट्रक्चर्स

The Vice Chancellor, the Academic Council and the Executive Council  
of the Central University of Kerala, on the recommendations of the duly appointed Board of Examiners,  
hereby declare that

*LEVNA CHACKO*

has been awarded the Degree of

**DOCTOR OF PHILOSOPHY**

in

Physics

in the year 2019

Title of Thesis: Growth, Characterization and Applications of Two-Dimensional Molybdenum  
Disulphide (MoS<sub>2</sub>) Based Nanostructures

विश्वविद्यालय की मुहर के तहत / Given under the Seal of the University

कासरगोड / Kasargod - 671320  
तारीख / Date : 19 FEB 2020



*For Muralikrishna*  
कुलपति  
VICE CHANCELLOR



# केरल केंद्रीय विश्वविद्यालय CENTRAL UNIVERSITY OF KERALA

(संसद के अधिनियम, 2009 द्वारा स्थापित/Established by an Act of Parliament, 2009)

तेजस्विनी हिल्स, पेरिया डाक, कासरगोड, केरल, भारत - 671 316

Tejaswini Hills, Periyar, Kasaragod, Kerala, India 671 316

## अनंतिम प्रमाण-पत्र/PROVISIONAL CERTIFICATE

SI. No: 10 /2020

Register No: MPH071313

This is to certify that Mr. AJITH S.KUMAR has been declared eligible for the award of the Degree of Doctor of Philosophy in Physics after successful completion of the Open Defence held on 12.06.2020.

The Degree has been awarded in accordance with the provisions of the University Grants Commission (Minimum Standards and Procedure for Award of M.Phil. / Ph.D. Degrees) Regulations, 2009.

Title of the Thesis: "TAILORING MATERIAL PARAMETERS AND CONNECTIVITY FOR ENHANCED MAGNETOELECTRIC COUPLING IN  $Ba_{0.85} Ca_{0.15} Zr_{0.1} Ti_{0.9} O_3$  (BCZT) BASED ENGINEERED HETEROSTRUCTURES"



दिनांक/Date : 14 OCT 2020

  
परीक्षा नियंत्रक

Controller of Examinations



# केरल केंद्रीय विश्वविद्यालय CENTRAL UNIVERSITY OF KERALA

(संसद के अधिनियम, 2009 द्वारा स्थापित/Established by an Act of Parliament, 2009)

तेजस्विनी हिल्स, पेरिया डाक, कासरगोड, केरल, भारत - 671 316

Tejaswini Hills, Periyar, Kasaragod, Kerala, India 671 316

## अनंतिम प्रमाण-पत्र/PROVISIONAL CERTIFICATE

Sl. No: 07 /2020

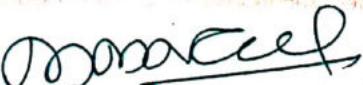
Register No: MPH071301

This is to certify that Mr. SHAREEF. M has been declared eligible for the award of the Degree of Doctor of Philosophy in Physics after successful completion of the Open Defence held on 16.07.2020.

The Degree has been awarded in accordance with the provisions of the University Grants Commission (Minimum Standards and Procedure for Award of M.Phil. / Ph.D. Degrees) Regulations, 2009.

Title of the Thesis: "EXPLORING HEAVY ION FUSION – FISSION DYNAMICS AROUND THE COULOMB BARRIER USING NEUTRON MULTIPLICITY MEASUREMENTS"



  
परीक्षा नियंत्रक

Controller of Examinations

दिनांक/Date : 30 SEP 2020



# केरल केंद्रीय विश्वविद्यालय CENTRAL UNIVERSITY OF KERALA

(संसद के अधिनियम, 2009 द्वारा स्थापित/Established by an Act of Parliament, 2009)

तेजस्विनी हिल्स, पेरिया डाक, कासरगोड, केरल, भारत - 671 316

Tejaswini Hills, Periyar, Kasaragod, Kerala, India 671 316

## अनंतिम प्रमाण-पत्र/PROVISIONAL CERTIFICATE

Sl. No: 03 /2020

Register No: MPH071306

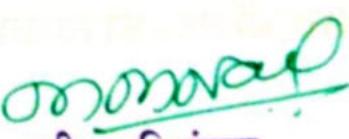
This is to certify that **Mr. LAVEEN. P.V** has been declared eligible for the award of the Degree of **Doctor of Philosophy** in **Physics** after successful completion of the Open Defence held on 06.07.2020.

The Degree has been awarded in accordance with the provisions of the University Grants Commission (Minimum Standards and Procedure for Award of M.Phil. / Ph.D. Degrees) Regulations, 2009.

Title of the Thesis: "SEARCHING THE STABILIZING EFFECTS OF  $N = 126$  IN COMPOUND SYSTEMS FORMED IN HEAVY ION COLLISIONS"



दिनांक/ Date : 30 SEP 2020

  
परीक्षा नियंत्रक  
Controller of Examinations



# केरल केन्द्रीय विश्वविद्यालय

## CENTRAL UNIVERSITY OF KERALA

(संसद के अधिनियम, वर्ष 2009 द्वारा स्थापित / Established under the Act of Parliament in 2009)

### To Whom It May Concern

This is to certify that Mrs. Anumol C N (Reg. No. MPH071304) has successfully defended the Ph.D. viva- voce of her thesis entitled "**Structural and magnetic properties of substituted nickel ferrite nanoparticles and spinel nanocomposites**" on 21<sup>st</sup> October 2020 at the Department of Physics, Central University of Kerala, Kasaragod.

Head of the Department



डॉ. स्वप्ना एस. नायर / DR. SWAPNA S. NAIR  
विभागाधार / Head  
उपायार्थ / Associate Professor  
भौतिक विज्ञान विभाग / Department of Physics  
केरल केन्द्रीय विश्वविद्यालय / Central University of Kerala  
तेजस्विनी हिल्स, पेरिये, कासरगोड / Tejaswini Hills, Periyе, Kasaragod

Date : 19.11.2020  
Place : Periya



# केरल केन्द्रीय विश्वविद्यालय

## CENTRAL UNIVERSITY OF KERALA

(संसद के अधिनियम, वर्ष 2009 द्वारा स्थापित / *Established under the Act of Parliament in 2009*)

### To Whom It May Concern

This is to certify that Mr. Sreejith K. P. (Reg. No. MPH071403) has successfully defended the Ph.D. viva- voce of his thesis entitled "**Studies on One-Dimensional Photonic Crystals Incorporating Superconducting Materials**" on 4<sup>th</sup> November 2020 at the Department of Physics, Central University of Kerala, Kasaragod.

Head of the Department

Date : 19.11.2020  
Place : Periya



डॉ. स्वप्ना एस. नायर / DR. SWAPNA S. NAIR  
दिव्यांगाध्यक्ष / Head  
उपाधार्य / Associate Professor  
वैज्ञानिक विज्ञान विभाग / Department of Physics  
केरल केन्द्रीय विश्वविद्यालय / Central University of Kerala  
तेजस्विनी हिल्स, पेरिया, कासरागोड / Tejaswini Hills, Periyar, Kasaragod



# केरल केन्द्रीय विश्वविद्यालय

## CENTRAL UNIVERSITY OF KERALA

(संसद के अधिनियम, वर्ष 2009 द्वारा स्थापित / Established under the Act of Parliament in 2009)

### To Whom It May Concern

This is to certify that Mrs. Subha A. (Reg. No. MPH071302) has successfully defended the Ph.D. viva- voce of his thesis entitled "**Synthesis and Magnetic Properties of Substituted Copper Ferrite Nanoparticles**" on 18<sup>th</sup> February 2021 at the Department of Physics, Central University of Kerala, Kasaragod.

Head of the Department



Date : 25.02.2021  
Place : Periya

डॉ. स्वप्ना एस. नायर / DR. SWAPNA S. NAIR  
प्रभागाध्यक्ष / Head  
उपचार्य / Associate Professor  
भौतिक विज्ञान विभाग / Department of Physics  
केरल केन्द्रीय विश्वविद्यालय / Central University of Kerala  
तेजस्विनी हिल्स, पेरिये, कासरगोड / Tejaswini Hills, Periye, Kasaragod



# केरल केन्द्रीय विश्वविद्यालय

## CENTRAL UNIVERSITY OF KERALA

(संसद के अधिनियम, वर्ष 2009 द्वारा स्थापित / Established under the Act of Parliament in 2009)

### To Whom It May Concern

This is to certify that Mr. Ajith Kumar K (Reg. No. MPH071310) has successfully defended the PhD viva-voce of his thesis entitled '**Streaming Instability in One Dimensional Negative Ion Plasma: Theory and PIC simulation**' on 03-03-2021 at Department of Physics, Central University of Kerala, Kasaragod.

Signature of Head of the Department  
(with seal)



Date: 15.03.2021

Place: Periya

डॉ. स्वप्ना एस. नायर / DR. SWAPNA S. NAIR  
विभागाधार्य / Head  
उपाधार्य / Associate Professor  
भौतिक विज्ञान विभाग / Department of Physics  
केरल केन्द्रीय विश्वविद्यालय / Central University of Kerala  
तेजस्विनी हिल्स, पेरिया, कासरगोड / Tejaswini Hills, Periy, Kasaragod



# केरल केंद्रीय विश्वविद्यालय CENTRAL UNIVERSITY OF KERALA

(संसद के अधिनियम, 2009 द्वारा स्थापित/Established by an Act of Parliament, 2009)

तेजस्विनी हिल्स, पेरिया डाक, कासरगोड, केरल, भारत -671 316

Tejaswini Hills, Periyar, Kasaragod, Kerala, India 671 316

## अनंतिम प्रमाण-पत्र/PROVISIONAL CERTIFICATE

Sl. No: 09 /2020

Register No: BPS071403

This is to certify that Ms. JOYOUS T JOSEPH has been declared eligible for the award of the Degree of Doctor of Philosophy in Plant Science after successful completion of the Open Defence held on 07.09.2020.

The Degree has been awarded in accordance with the provisions of the University Grants Commission (Minimum Standards and Procedure for Award of M.Phil. / Ph.D. Degrees) Regulations, 2009.

Title of the Thesis: "ANALYZING THE INFLUENCE OF *AGROBACTERIUM TUMEFACIENS* ON THE EXPRESSION AND EPIGENETIC PROFILE OF PLANT DNA REPAIR SYSTEM"



दिनांक/Date : 12 OCT 2020

  
परीक्षा नियंत्रक

Controller of Examinations



# केरल केंद्रीय विश्वविद्यालय Central University of Kerala

केरल केंद्रीय विश्वविद्यालय के कुलपति, शैक्षिक परिषद् एवं कार्यकारी परिषद्, विधिवत् नियुक्त परीक्षक मंडल के सिफारिशों  
के आधार पर घोषणा करते हैं कि

अनीष एम. एस  
को

वर्ष 2021 में



समाज कार्य  
में  
डॉक्टर ऑफ़ फिलोसोफी  
की उपाधि प्रदान की गई है।

प्रबंध का शीर्षक: साइको सोशियल प्रोफाइल एण्ड लाइफ एक्सपीरियनसेस ऑफ़ होमोसेक्युएल मेन इन  
केरला

The Vice Chancellor, the Academic Council and the Executive Council  
of the Central University of Kerala, on the recommendations of the duly appointed Board of Examiners,  
hereby declare that

*ANEESH M S*

has been awarded the Degree of

**DOCTOR OF PHILOSOPHY**

in

**Social Work**

in the year 2021



Title of Thesis: Psycho Social Profile and Life Experiences of Homosexual Men in Kerala

विश्वविद्यालय की मुहर के तहत / Given under the Seal of the University

कासरगोड / Kasargod - 671320  
तारीख / Date : 15 DEC 2021



*.....H*  
कुलपति  
VICE CHANCELLOR



# केरल केंद्रीय विश्वविद्यालय Central University of Kerala

केरल केंद्रीय विश्वविद्यालय के कुलपति, शैक्षिक परिषद् एवं कार्यकारी परिषद्, विधिवत् नियुक्त परीक्षक मंडल के सिफारिशों  
के आधार पर घोषणा करते हैं कि

प्रकाश अमिन

को

वर्ष 2021 में



समाज कार्य

में

डॉक्टर ऑफ फिलोसोफी

की उपाधि प्रदान की गई है।

प्रबंध का शीर्षक: इंडिजीनेस हीलिंग इन मेंटल हेल्थ

The Vice Chancellor, the Academic Council and the Executive Council  
of the Central University of Kerala, on the recommendations of the duly appointed Board of Examiners,  
hereby declare that

*PRAKASHA AMIN*

has been awarded the Degree of

**DOCTOR OF PHILOSOPHY**

in

Social Work

in the year 2021



Title of Thesis: Indigenous Healing in Mental Health

विश्वविद्यालय की मुहर के तहत / Given under the Seal of the University



कासरगोड / Kasargod - 671320

तारीख / Date : 15 DEC 2021

*विश्वविद्यालय के कुलपति*  
VICE CHANCELLOR



# केंद्रीय विश्वविद्यालय

## Central University of Kerala

केरल केंद्रीय विश्वविद्यालय के कुलपति, शैक्षिक परिषद् एवं कार्यकारी परिषद्, विधिवत् नियुक्त परीक्षक मंडल के सिफारिशों  
के आधार पर घोषणा करते हैं कि

प्रबिता मोहन

को

वर्ष 2019 में



प्राणि विज्ञान

में

डॉक्टर ऑफ़ फिलोसफी

की उपाधि प्रदान की गई है।

**प्रबंध का शीर्षक:** बिहेवियरेल, बयोकेमिकल एण्ड इम्यूनोलोजिकल चैंजेस इन इनसेक्ट हॉस्ट पैरासिटाइसड बाइ इट्स पैरासिटोयड

The Vice Chancellor, the Academic Council and the Executive Council  
of the Central University of Kerala, on the recommendations of the duly appointed Board of Examiners,  
hereby declare that

**PRABITHA MOHAN**

has been awarded the Degree of

**DOCTOR OF PHILOSOPHY**

in

Zoology

in the year 2019



**Title of Thesis:** Behavioural, Biochemical and Immunological Changes in Insect Host  
Parasitised By Its Parasitoid

विश्वविद्यालय की मुहर के तहत / Given under the Seal of the University



कासरगोड / Kasargod - 671320  
तारीख / Date : 19 FEB 2020

*Sejalwaly*  
कुलपति  
VICE CHANCELLOR

क्रम सं./Serial No : CUK/2002536

पंजीकरण सं./Register No : BAS071401



# केरल केंद्रीय विश्वविद्यालय Central University of Kerala

केरल केंद्रीय विश्वविद्यालय के कुलपति, शैक्षिक परिषद् एवं कार्यकारी परिषद्, विधिवत् नियुक्त परीक्षक मंडल के सिफारिशों  
के आधार पर घोषणा करते हैं कि

श्रुती. एम.वी

को

वर्ष 2019 में



प्राणि विज्ञान

में

डॉक्टर ऑफ़ फिलोसफी

की उपाधि प्रदान की गई है।

प्रबंध का शीर्षक: न्यू इंसाइट इंटर्नेशनल प्रोफेशनल एंड होर्मोनल पैटर्स बाइ कुरकुमिन

The Vice Chancellor, the Academic Council and the Executive Council  
of the Central University of Kerala, on the recommendations of the duly appointed Board of Examiners,  
hereby declare that

*SRUTHI. M.V*

has been awarded the Degree of

**DOCTOR OF PHILOSOPHY**

in

Zoology

in the year 2019

Title of Thesis: New Insights into Fish Growth, Metabolic and Hormonal Patterns by  
Curcumin.

विश्वविद्यालय की मुहर के तहत / Given under the Seal of the University

कासरगोड / Kasargod - 671320  
तारीख / Date : 19 FEB 2020



*for Chancellor*  
कुलपति  
VICE CHANCELLOR

क्रम सं./Serial No : CUK/20/002532

पंजीकरण सं./Register No : BAS071502



# केरल केंद्रीय विश्वविद्यालय Central University of Kerala

केरल केंद्रीय विश्वविद्यालय के कुलपति, शैक्षिक परिषद् एवं कार्यकारी परिषद्, विधिवत् नियुक्त परीक्षक मंडल के सिफारिशों

के आधार पर घोषणा करते हैं कि

अरुण डी

को

वर्ष 2019 में



प्राणि विज्ञान

में

डॉक्टर ऑफ़ फिलोसोफी

की उपाधि प्रदान की गई है।

प्रबंध का शीर्षक: इंवेस्टिगेशन्स ऑन स्किन एण्ड सीक्रेटोम ऑफ़ सेलेक्टेड केशिलिएन्स फ्रम वेस्टर्न खट्स, इंडिया

The Vice Chancellor, the Academic Council and the Executive Council  
of the Central University of Kerala, on the recommendations of the duly appointed Board of Examiners,  
hereby declare that

ARUND

has been awarded the Degree of

DOCTOR OF PHILOSOPHY

in

Zoology

in the year 2019

Title of Thesis: Investigations on Skin and Secretome of Selected Caecilians from Western  
Ghats, India

विश्वविद्यालय की मुहर के तहत / Given under the Seal of the University

कासरगोड / Kasargod - 671320  
तारीख / Date : 19 FEB 2020



*Sopanam*  
कुलपति  
VICE CHANCELLOR



# केरल केंद्रीय विश्वविद्यालय CENTRAL UNIVERSITY OF KERALA

(संसद के अधिनियम, 2009 द्वारा स्थापित/Established by an Act of Parliament, 2009)

तेजस्विनी हिल्स, पेरिया डाक, कासरगोड, केरल, भारत - 671 316

Tejaswini Hills, Periyed, Kasaragod, Kerala, India 671 316

## अनंतिम प्रमाण-पत्र/PROVISIONAL CERTIFICATE

SI. No: 22 /2021

Register No: BAS071406

This is to certify that Ms. SANGEETHA VARMA V M has been declared eligible for the award of the Degree of Doctor of Philosophy in Zoology after successful completion of the Open Defence held on 26.03.2021.

The Degree has been awarded in accordance with the provisions of the University Grants Commission (Minimum Standards and Procedure for Award of M.Phil. / Ph.D. Degrees) Regulations, 2009.

Title of the Thesis: "ECOLOGICAL INTERACTIONS BETWEEN WILD PLANT COMMUNITY AND FLORAL VISITORS IN AGRICULTURAL LANDSCAPES"

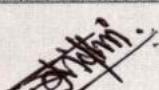
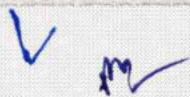


दिनांक/Date : 14 JUL 2021



परीक्षा नियंत्रक

Controller of Examinations

ENTERED BY :	
COMPARED BY :	
VERIFIED BY :	

A01173



# केरल केंद्रीय विश्वविद्यालय CENTRAL UNIVERSITY OF KERALA

(संसद के अधिनियम, 2009 द्वारा स्थापित/Established by an Act of Parliament, 2009)

तेजस्विनी हिल्स, पेरिया डाक, कासरगोड, केरल, भारत - 671 316

Tejaswini Hills, Periyar P.O, Kasaragod, Kerala, India 671 316

## अनंतिम प्रमाण-पत्र/PROVISIONAL CERTIFICATE

Sl. No: 18 /2021

Register No: LLT071501

This is to certify that **Mr. BINNY ABRAHAM** has been declared eligible for the award of the Degree of **Doctor of Philosophy** in **Linguistics** after successful completion of the Open Defence held on 28.11.2020.

The Degree has been awarded in accordance with the provisions of the University Grants Commission (Minimum Standards and Procedure for Award of M.Phil. / Ph.D. Degrees) Regulations, 2009.

Title of the Thesis: "**CENTRALISED VOWELS IN DRAVIDIAN LANGUAGES OF ATTAPPADY ACOUSTIC, HISTORICAL AND ORTHOGRAPHIC PERSPECTIVES**"



दिनांक/Date : 24 FEB 2021

परीक्षा नियंत्रक  
Controller of Examinations

**2-DEOXY GLUCOSE MEDIATED TRANSCRIPTIONAL  
AND POST TRANSLATIONAL REGULATION  
OF VEGF: IMPLICATIONS FOR ANGIOGENESIS**

A Thesis submitted to the  
Central University of Kerala  
in partial fulfillment of the requirements for the degree of  
**Doctor of Philosophy**  
In  
**Biochemistry**  
By  
**HARITHA K.**  
Reg. No. **BCM071201**



**DEPARTMENT OF BIOCHEMISTRY & MOLECULAR BIOLOGY  
SCHOOL OF BIOLOGICAL SCIENCES  
CENTRAL UNIVERSITY OF KERALA  
KASARAGOD - 671 314, KERALA  
APRIL 2018**



केरल केन्द्रीय विश्वविद्यालय  
CENTRAL UNIVERSITY OF KERALA  
(Established under the Central Universities Act, 2009)  
Tejaswini Hills, Periyar PO, Kasaragod - 671316, Kerala, India.

PROVISIONAL CERTIFICATE

Sl. No: 984 / 2018

Register No: BCM071201

This is to certify that **Mr. /Ms. HARITHA .K** has been declared eligible for the award of the Degree of **Doctor of Philosophy** in **Biochemistry** after successful completion of the Open Defence held on 05.09.2018.

The Degree has been awarded in accordance with the provisions of the University Grants Commission (Minimum Standards and Procedure for Award of M.Phil. / Ph. D Degrees) Regulations, 2009.

Title of the Thesis: **“2-Deoxy Glucose Mediated Transcriptional and Post Translational Regulation of VEGF: Implications for Angiogenesis”**

Date: 14.11.2018



*monoraj*  
15/11/2018  
Controller of Examinations

**2-DEOXY GLUCOSE MEDIATED TRANSCRIPTIONAL AND  
POST TRANSLATIONAL REGULATION OF VEGF:  
IMPLICATIONS FOR ANGIOGENESIS**

A Thesis submitted to the  
Central University of Kerala  
in partial fulfillment of the requirements for the degree of

**Doctor of Philosophy**

**In**

**Biochemistry**

**By**

**HARITHA K.**

**Reg. No. BCM071201**



**DEPARTMENT OF BIOCHEMISTRY & MOLECULAR BIOLOGY  
SCHOOL OF BIOLOGICAL SCIENCES  
CENTRAL UNIVERSITY OF KERALA  
KASARAGOD – 671 314, KERALA  
APRIL 2018**



केरल केंद्रीय विश्वविद्यालय  
CENTRAL UNIVERSITY OF KERALA  
जैवरसायन एवं आणविक जीवविज्ञान विभाग  
DEPARTMENT OF BIO - CHEMISTRY & MOLECULAR BIOLOGY

डॉ. वी. बी. समीर कुमार / Dr. V.B. Sameer Kumar,  
सहायक प्राध्यापक / Assistant Professor.

### Certificate

This is to certify that this thesis is a bona fide record of the research work carried out by **HARITHA K.** under my supervision and guidance at the Department of Biochemistry & Molecular Biology in the School of Biological Sciences, Central University of Kerala. It is also further certified that the thesis is free from plagiarism after having checked using URKUND and no sentence, equation, diagram, table, paragraph or section has been copied from previous work verbatim except at a minimal level in acceptable formats with due acknowledgement of the original sources. The similarity found by running the plagiarism software is less than 5%.

Place: Kasaragod

Date: ०५/०४/२०१८

## **Declaration**

I hereby declare that this thesis is a bona fide record of the research work carried out by me under the supervision and guidance of **Dr. V.B. Sameer Kumar**, Assistant Professor, Department of Biochemistry & Molecular Biology, and that, to the best of my knowledge and belief, it contains no material previously published or written by another person nor material which has been accepted for the award of any other degree or diploma of a University or other institute of higher learning, except where due acknowledgment has been made in the text.

Place: Kasaragod

Date: 02-04-2018



**HARITHA K.**

**IDENTIFICATION AND FUNCTIONAL ANALYSIS  
OF TUMOR DERIVED miRNAs RELEVANT IN  
THE PROCESS OF ANGIOGENESIS**

**A Thesis submitted to the  
Central University of Kerala  
in partial fulfillment of the requirements for the degree of**

**Doctor of Philosophy  
In  
Biochemistry**

**By  
SRUTHI T.V.  
Reg. No. BCM071205**



**DEPARTMENT OF BIOCHEMISTRY & MOLECULAR BIOLOGY  
SCHOOL OF BIOLOGICAL SCIENCES  
CENTRAL UNIVERSITY OF KERALA  
KASARAGOD-671314, KERALA**

**JANUARY-2019**



# കേരല കേന്ദ്രീയ വിശ്വവിദ്യാലയം

## CENTRAL UNIVERSITY OF KERALA

(സംസദ കെ അധിനിയമ, 2009 ദ്വാരാ സ്ഥാപിത്/Established by an Act of Parliament, 2009)

തേജസ്വിനി ഹിൽസ്, പേരിയാ ഡാക്, കാസരഗോഡ്, കേരല, ഭാരത -671 316

Tejaswini Hills, Periyap.O, Kasaragod, Kerala, India 671 316

### അന്തിമ പ്രമാണ-പത്ര/PROVISIONAL CERTIFICATE

Sl. No: 1095 /2019

Register No: BCM071205

This is to certify that **Ms. SRUTHI T.V.** has been declared eligible for the award of the  
Degree of **Doctor of Philosophy** in **Biochemistry** after successful completion of the Open  
Defence held on 10.05.2019.

The Degree has been awarded in accordance with the provisions of the University Grants  
Commission (Minimum Standards and Procedure for Award of M.Phil. / Ph. D Degrees)  
Regulations, 2009.

Title of the Thesis: **“IDENTIFICATION AND FUNCTIONAL ANALYSIS OF TUMOR  
DERIVED miRNAs RELEVANT IN THE PROCESS OF ANGIOGENESIS”**



ദിനാംക/Date : 24 JUN 2019

  
പരീക്ഷാ നിയന്ത്രക

Controller of Examinations

ENTERED BY :



COMPARED BY :



VERIFIED BY :



A00142

**IDENTIFICATION AND FUNCTIONAL ANALYSIS OF  
TUMOR DERIVED miRNA RELEVANT IN THE PROCESS  
OF ANGIOGENESIS**

A Thesis submitted to the  
Central University of Kerala  
in partial fulfillment of the requirements for the degree of

**Doctor of Philosophy**  
**In**  
**Biochemistry**  
**By**

**SRUTHI TV.**  
Reg. No. BCM071205



**DEPARTMENT OF BIOCHEMISTRY & MOLECULAR BIOLOGY  
SCHOOL OF BIOLOGICAL SCIENCES  
CENTRAL UNIVERSITY OF KERALA  
KASARAGOD - 671 314, KERALA**

**JANUARY - 2019**



केरलकेंद्रीयविश्वविद्यालय  
CENTRAL UNIVERSITY OF KERALA  
जैवरसायन एवं आणविकजीवविज्ञानविभाग  
DEPARTMENT OF BIO - CHEMISTRY & MOLECULAR BIOLOGY

डॉ. वी. बी. समीरकुमार / Dr. V.B. Sameer Kumar,  
सहायकप्राध्यापक / Assistant Professor.

**Certificate**

This is to certify that this thesis is a bona fide record of the research work carried out by **SRUTHI T.V.** under my supervision and guidance at the department of Biochemistry and Molecular Biology in the school of Biological Sciences, Central University of Kerala. It is also further certified that the thesis is free from plagiarism after having checked using URKUND and no sentence, equation, diagram, table, paragraph or section has been copied from previous work verbatim except at a minimal level in acceptable formats with due acknowledgement of the original sources. The similarity found by running the plagiarism software is about **5%**.

Place : Kasaragod

Date: 4/1/2019

---

### **Declaration**

I hereby declare that this thesis is a bonafide record of the research work carried out by me under the supervision and guidance of **Dr. V.B. Sameer Kumar**, Assistant Professor, Department of Biochemistry & Molecular Biology, and that, to the best of my knowledge and belief, it do not contain any material previously published or written by another person or material which has been accepted for the award of any other degree or diploma of a University or other institute of higher learning, except where due acknowledgment has been made in the text.

Place: Kasaragod



**SRUTHI T.V.**

Date: 01-01-2019

क्रम सं./Serial No : CUK/20/002534

पंजीकरण सं./Register No : BBM071301



# केरल केंद्रीय विश्वविद्यालय Central University of Kerala

केरल केंद्रीय विश्वविद्यालय के कुलपति, शैक्षिक परिषद् एवं कार्यकारी परिषद्, विधिवत् नियुक्त परीक्षक मंडल के सिफारिशों  
के आधार पर घोषणा करते हैं कि

ग्रेस राजि.आर

को

वर्ष 2019 में



जैवरसायन

में

डॉक्टर ऑफ फिलोसफी

की उपाधि प्रदान की गई है।

प्रबंध का शीर्षक: एल्यूसिडेटिंग द रोल ऑफ सेक्रेटेड एमआईआरएनएस इन डिवलपिंग एंटी कैंसर ड्रग्स रेसिस्टेंस

The Vice Chancellor, the Academic Council and the Executive Council  
of the Central University of Kerala, on the recommendations of the duly appointed Board of Examiners,  
hereby declare that

GRACE RAJI. R

has been awarded the Degree of

DOCTOR OF PHILOSOPHY

in

Biochemistry

in the year 2019

Title of Thesis: Elucidating The Role of Secreted miRNAs in Developing Anticancer Drug  
Resistance

विश्वविद्यालय की मुहर के तहत / Given under the Seal of the University

कासरगोड / Kasargod - 671320  
तारीख / Date : 19 FEB 2020



*Rajabi*  
कुलपति  
VICE CHANCELLOR



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## CENTRAL UNIVERSITY OF KERALA

(संसद के अधिनियम, 2009 द्वारा स्थापित/Established by an Act of Parliament, 2009)

तेजस्विनी हिल्स, पेरिया डाक, कासरगोड, केरल, भारत -671 316

Tejaswini Hills, Periyed, Kasaragod, Kerala, India 671 316

### अनंतिम प्रमाण-पत्र/PROVISIONAL CERTIFICATE

Sl. No: 1491 /2019

Register No: BBM071405

This is to certify that **Ms. LINCY EDATT** has been declared eligible for the award of the Degree of **Doctor of Philosophy** in **Biochemistry** after successful completion of the Open Defence held on 27.01.2020.

The Degree has been awarded in accordance with the provisions of the University Grants Commission (Minimum Standards and Procedure for Award of M.Phil. / Ph.D. Degrees) Regulations, 2009.

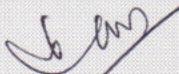
Title of the Thesis: **“ANALYSIS OF THE ROLE OF miRNAs IN THE PROCESS OF ENDOTHELIAL MESENCHYMAL TRANSITION DURING ANGIOGENESIS”**



दिनांक/Date :

18 MAR 2020

*monaek*  
परीक्षा नियंत्रक  
Controller of Examinations

ENTERED BY	:	
COMPARED BY	:	
VERIFIED BY	:	

A00543

क्रम सं./Serial No : CUK/18/001504

पंजीकरण सं./Register No : BCM071204



# केरल केंद्रीय विश्वविद्यालय Central University of Kerala

केरल केंद्रीय विश्वविद्यालय के कुलपति, शैक्षिक परिषद, एवं कार्यकारी परिषद, विधिवत् नियुक्त परीक्षण बोर्ड के लिपारिशों  
के आधार पर योग्यता करते हैं कि

मनचला नागेश्वर रेड्डी  
को

वर्ष 2018 में



जैवरसायन

में

डॉक्टर ऑफ फिलोसफी

की उपायि प्रदान की गई है।

प्रबंध का शीर्षक: अंडरस्टॉडिंग डैग्नोस्टिक्स इंफेक्शन्स: स्टीस औन ह्यूमन सेरोप्रेवलेन्स एण्ड मैट्रिक्युलार  
इन्टरएन विथ हॉस्ट

The Vice Chancellor, the Academic Council and the Executive Council  
of the Central University of Kerala, on the recommendations of the duly appointed Board of Examiners,  
hereby declare that

*MANCHALA NAGESWAR REDDY*

has been awarded the Degree of

DOCTOR OF PHILOSOPHY

in

Biochemistry

in the year 2018



Title of Thesis: Understanding dengue virus infections: Studies on human seroprevalence  
and molecular interaction with host

विश्वविद्यालय की मुहर के सहत / Given under the Seal of the University



कासरगोड / Kasargod - 671316  
तारीख / Date : 25 FEB 2019

*[Signature]*  
कुलपति  
VICE CHANCELLOR



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**National Institute of Technology Calicut**

एन.आई.टी. कॉम्प्यूट (पी.ओ), कालिकट, केरल-673 601, भारत • NIT Campus (P.O.), Calicut, Kerala-673 601, India

Phone: 0495 2286100, 2286101

Fax: 0495 2287250

website: [www.nitc.ac.in](http://www.nitc.ac.in)

NITC/GA8/Ph. D Thesis/P110057BT/2011

06<sup>th</sup> December 2017

**PROCEEDINGS**

**Sub:** - Oral Examination Board for the conduct of viva-voce exam of **Mr. GANAPATHY. G**  
Roll.No.**P110057BT** through Video Conference –Reg.

An Oral Examination Board with the following members is constituted for the conduct of the oral examination of the candidate **Mr. Ganapathy. G**, Roll. No.**P110057BT**, through Video Conference, on the thesis entitled “**PHENOLIC PROFILING OF ZINGIBER SAPP.: EVALUATION OF BIOLOGICAL ACTIVITIES AND ROLE IN PLANT DEFENSE.**”

1. <b>Dr. G.K. Rajanikant</b> , Associate professor& Head - School of Biotechnology NIT Calicut	Chairperson
2. <b>Dr. Madhusweta Das</b> Associate Professor Department of Agricultural and Food Engg. IIT-Kharagpur, West Bengal	External Examiner
3. <b>Dr. Rathinasamy. K</b> , Associate Professor, School of Biotechnology NIT Calicut	Subject Expert
4. <b>Dr. R. Aswati Nair</b> , Assistant Professor, Dept. of Biotechnology Central University of Kerala, Kasaragod.	Guide
5. <b>Dr. Anaul Kabir</b> , Associate Professor School of Biotechnology NIT Calicut.	Co-Guide

All the above members are requested to attend the Oral Examination on **12-12-2017**.

The Viva-voce examination may be held as an open defense. All the Research Scholars and interested Faculty Members may be invited to attend the examination.

*Sathudevi P.S*  
3/12/17  
Dean (Academic)

Copy to: All members.

राष्ट्रीय प्रौद्योगिकी संस्थान कालिकट  
National Institute of Technology Calicut



Upon the recommendation of the Senate hereby confers on

**GANAPATHY G**

*the degree of*

*Doctor of Philosophy*

*in the year 2018*

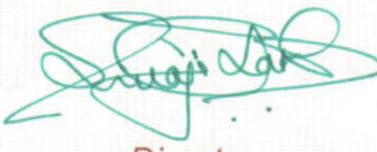
*Based on the thesis entitled:*

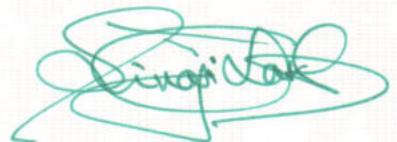
**PHENOLIC PROFILING OF ZINGIBER spp.: EVALUATION OF  
BIOLOGICAL ACTIVITIES AND ROLE IN PLANT DEFENSE**

*Given at the National Institute of Technology Calicut*

*on 29<sup>th</sup> September, 2018*

  
Registrar

  
Director

  
Chairperson  
Board of Governors



### PROCEEDINGS

Sub: - Oral Examination Board for the conduct of viva-voce exam of **Ms. KEERTHI DIVAKARAN**  
Roll No **P110024BT** -Reg.

An Oral Examination Board with the following members is constituted for the conduct of the oral examination of the candidate **Ms. Keerthi Divakaran**, Roll. No **P110024BT**, on the thesis entitled "**MULTITROPHIC SECONDARY METABOLITE(S) MEDIATED DEFENSE IN ZINGIBER ZERUMBET (L.) SMITH: A SYSTEMATIC EXPLORATION USING MOLECULAR, METABOLOMIC AND MICROBIOME ANALYSIS.**"

1. Dr. G.K. Rajanikant, Professor & Head School of Biotechnology NIT Calicut	Chairperson
2. Dr. R. Uma Shaanker Professor Department of Crop Physiology University of Agricultural Science GKV K, Bangalore- 560 065	External Examiner
3. Dr. Rathinasamy, K, Associate Professor, School of Biotechnology NIT Calicut	Subject Expert
4. Dr. R. Aswati Nair, Associate Professor, Dept. of Biotechnology Central University of Kerala, Kasaragod.	Guide
5. Dr. Lakshmi, C, Associate Professor School of Chemistry NIT Calicut	Co-Guide

All the above members are requested to attend the Oral Examination on **02-07-2018**.

The Viva-voce examination may be held as an open defense. All the Research Scholars and interested Faculty Members may be invited to attend the examination.

*Sathidevi P.S.  
13/06/18  
Dean (Academic)*

राष्ट्रीय प्रौद्योगिकी संस्थान कालिकट  
National Institute of Technology Calicut



*Upon the recommendation of the Senate hereby confers on*

**KEERTHI DIVAKARAN**

*the degree of*

*Doctor of Philosophy*

*in the year 2018*

*Based on the thesis entitled:*

**MULTITROPHIC SECONDARY METABOLITE(S) MEDIATED DEFENSE IN  
ZINGIBER ZERUMBET (L) SMITH: A SYSTEMATIC EXPLORATION USING  
MOLECULAR, METABOLOMIC AND MICROBIOME ANALYSIS**

*Given at the National Institute of Technology Calicut*

*on 29<sup>th</sup> September, 2018*

  
Registrar

  
Director

  
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Board of Governors



राष्ट्रीय प्रौद्योगिकी संस्थान कालिकट  
**National Institute of Technology Calicut**

एन.आई.टी. सॉल्यूशन (पी.ओ), कालिकट, केरल-673 601, भारत • NIT Campus (P.O.), Calicut, Kerala-673 601, India

Phone: 0495 2286100, 2286101

Fax: 0495 2287250

website: www.nitc.ac.in

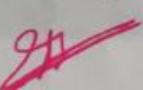
05<sup>th</sup> June 2020

NITC/GA8/Ph. D Thesis/ P130043BT/2013

PROCEEDINGS

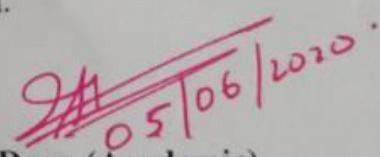
**Sub: - Oral Examination Board for the conduct of viva-voce exam of Ms. PRINCY C P,  
(Roll No: P130043BT) – Through Google Meet online platform -Reg.**

An Oral Examination Board with the following members is constituted for the conduct of the oral examination for the candidate **Ms. PRINCY C P, (Roll No: P130043BT)**, through Google Meet online platform, on the thesis entitled "**UNRAVELING Zingiber zerumbet (L.) Smith- Pythium myriotylum Drechsler PATHOSYSTEM: DETERMINING Z. zerumbet RESISTANCE, MICROBIOME BIOPROSPECTING AND IDENTIFYING CANDIDATE ISOLATES FOR SOFT- ROT DISEASE CONTROL IN GINGER**"

1. <b>Dr. Suchithra T.V.,</b> Professor & Head SBT NIT Calicut.	Chairperson
2. <b>Dr. Shilpi Sharma,</b> Professor Department of Biochemical Engineering and Biotechnology IIT Delhi	External Examiner
3. <b>Dr. Rathinasamy K,</b> Associate Professor SBT NIT Calicut	Subject Expert
4. <b>Dr. Suni Vasudevan,</b> Assistant Professor CHY NIT Calicut	Co-Guide 
5. <b>Dr. R. Aswati Nair,</b> Associate Professor, CUK Kasargod	Guide

All the above members are requested to attend the viva-voce Examination on **15/06/2020** at **3:00 PM.**

The Viva-voce examination may be held as online mode. All the Research Scholars and interested Faculty Members may be invited to attend the examination.

  
**Dean (Academic)**

Copy to: All members.



राष्ट्रीय प्रौद्योगिकी संस्थान कालिकट  
National Institute of Technology Calicut

*Upon the recommendation of the Senate, hereby confers on*

*Princy CP*  
*the degree of*

**Doctor of Philosophy**

in the year 2020

Based on the thesis entitled:

**UNRAVELING *Zingiber zerumbet* (L.) Smith- *Pythium myriotylum* Drechsler  
PATHOSYSTEM: DETERMINING *Z.zerumbet* RESISTANCE AND  
BIOPROSPECTING POTENTIAL BACTERIAL ISOLATES FOR SOFT-ROT  
DISEASE CONTROL IN GINGER**

*Given at the National Institute of Technology Calicut  
on November 28, 2020*



  
Registrar

  
Sathender P.S.  
Director

  
Chairperson  
Board of Governors