विद्या-वाचस्पति

प्रमाणित किया जाता है कि सितम्बर, **1994** में "सम प्रॉब्लम्स इन बबल डायनामिक्स एण्ड हाइड्रोमैगनेटिक स्टेबिलीटी थ्योरी "

पर शोध-प्रबंध स्वीकृत हो जाने के उपरांत गुरप्रीत सिंह टूटेजा को **1995** के दीक्षान्त-समारोह में इस विश्वविद्यालय की विद्या-वाचस्पति की उपाधि प्रदान की गई ।

——•——

University of Delhi
DOCTOR OF PHILOSOPHY

This is to certify that *Gurpreet Singh Tuleja* after approval of his/her thesis on " *Some Problems in Bubble Dynamics and Hydromagnetic Stability Theory* " in *September*, 1994, has been admitted to the degree of Doctor of Philosophy in this University at the Convocation held in 1995.

फुल-सचिव,
दिल्ली विश्वविद्यालय
Registrar,
University of Delhi.

दिल्ली, दिनांक 6 अगस्त, 1995
Delhi, dated the 6th August, 1995

कुलपति,
दिल्ली विश्वविद्यालय
Vice-Chancellor,
University of Delhi.

Ref. Acad | Res | 2023-24 | 4443

Date 24/07/23

PROVISIONAL CERTIFICATE

This is to certify that **Mr. Vipin Kumar S/o Sh. Padam Singh Enrolment No. 18042** completed his Ph.D. work in accordance with the provisions of the University Grants Commission (Minimum Standards and Procedure for Awards of Ph.D. Degree) Regulation 2016 on the topic **"SOME NEW EXPLORATION ON GRAPH LABELING AND APPLICATIONS "** in **MATHEMATICS**. His viva voce examination was held on **10.01.2022**. The Doctor of Philosophy (Ph.D.) degree will be conferred to him in the convocation.

Controller of Examinations

Mohanlal Sukhadia University, Udaipur

S.No. **4524**

PROVISIONAL CERTIFICATE

Certified that the thesis on the subject "A STUDY OF RIEMANN-LIOUVILLE FRACTIONAL DIFFERENTIAL AND INTEGRAL OPERATORS IN BICOMPLEX SPACE WITH APPLICATIONS"

submitted by .... Mr. RAJ KUMAR ....

for the degree of Doctor of Philosophy in the faculty of .... SCIENCE ....

.... has been approved by the Vice-Chancelllor on 12-07-2024 .

UDAIPUR

Dated ...12.07.2024.

REGISTRAR

Note : The degree of Ph.D. shall be conferred after the formal approval by the Board of Management

322

University of Delhi

DOCTOR OF PHILOSOPHY

This is to certify that Dhiraj Kumar Singh after approval of his/her thesis on " On Sum Form Functional Equations in Information Theory " in February, 2009, has been admitted to the degree of Doctor of Philosophy in this University at the Convocation held in 2009.

Registrar,
University of Delhi

Delhi, dated the   1st March, 2009

Vice-Chancellor,
University of Delhi

جامعہ مِلّیہ اِسلامیہ

ڈاکٹر آف فلاسفی

تصدیق کی جاتی ہے کہ .... عبداللہ .... کو
٢٠٠٧ء میں " اے اسٹڈی آف فنکشن اسپیسیز یوزنگ ویولیٹ پیکٹس "

پر تحقیقی مقالہ منظور ہونے کے بعد اس یونیورسٹی نے ڈاکٹر آف فلاسفی کا مستحق قرار دیا۔

JAMIA MILLIA ISLAMIA
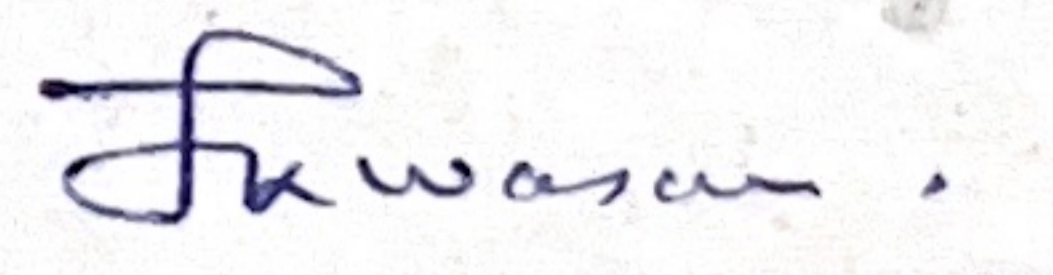### (A Central University by an Act of Parliament)

DOCTOR OF PHILOSOPHY

This is to certify that .... *Abdullah* ....

after approval of his / her thesis on .... *"A Study of Function*
Spaces using "Wavelet Packets" ....

.... in ..... *2007* ....

has been admitted to the Degree of Doctor of Philosophy in this
University.

Musajjil
(Registrar) مُسَجِّل

شیخ الجامعہ **Shaikhul Jamia**
(Vice-Chancellor)

جامعہ نگر، نئی دہلی، مورخہ Jamia Nagar, New Delhi, Dated the **3 0 OCT 2008**

Enrolment No. _____

Roll No. _____

DOCTOR OF PHILOSOPHY

This is to certify that *Mohammad Arif*
has been admitted to the Degree of Doctor of Philosophy in *Mathematics*
in the Jamia Millia Islamia at the Convocation of 19 92

SEAL

Murayyu
(Registrar)
مرتب

Shaikhul Jamia
(Vice-Chancellor) شیخ الجامعہ
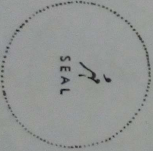
Jamia Nagar, New Delhi, Dated the

2 0 JAN 1993

№ 890061

चौधरी चरण सिंह विश्वविद्यालय, मेरठ
Chaudhary Charan Singh University, Meerut

विद्या वाचस्पति

प्रमाणित किया जाता है कि **नितेश धीमान**
आत्मज/आत्मजा श्री **नरेश धीमान** एवं श्रीमती **सविता रानी** को विश्वविद्यालय की
वर्ष **2023** में **गणित** विषय में **विद्या वाचस्पति** की उपाधि प्रदान की गई।

प्रमाणित किया जाता है कि यह उपाधि यू0जी0सी0 पी0एच0डी0 विनियम 2009/2016 के मानकों को पूर्ण करती है।

DOCTOR OF PHILOSOPHY

This is to Certify that **Nitesh Dhiman**
Son/Daughter of Shri **Naresh Dhiman** and Smt. **Savita Rani** has been
conferred the Degree of **DOCTOR OF PHILOSOPHY** in
MATHEMATICS of the University in **2023**.

शीर्षक/Title : FUZZY AND MEDIATIVE LOGIC ANALYSIS TO HUMAN HEALTHCARE MANAGEMENT MODELS

Certified that the degree compiles with UGC Ph.D. regulation 2009/2016.

Chaudhary Charan Singh University, Meerut
Dated : 18/10/2023

कुलपति
Vice-Chancellor

दिल्ली विश्वविद्यालय

UNIVERSITY OF DELHI

प्रमाणित किया जाता है कि नवम्बर, 2013 में शोध प्रबंध स्वीकृत हो जाने के उपरांत

'वेणु गोपाल'

को 2014 के दीक्षांत-समारोह में दिल्ली विश्वविद्यालय की विद्या-वाचस्पति की उपाधि प्रदान की गई।

विभाग: गणित

This is to certify that on approval of the thesis in November, 2013

'Venu Gopal'

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 2014.

Department: Mathematics

कुलसचिव
दिल्ली विश्वविद्यालय
Registrar
University of Delhi

दिल्ली, दिनांक **14 मार्च, 2014**
Delhi, Dated the **14th March, 2014**

कुलपति
दिल्ली विश्वविद्यालय
Vice Chancellor
University of Delhi

नामांकन संख्या
Enrol. No. ZH - 149/ 2000

000278

BROWN

CHI-WANG SHU
Theodore B. Stowell University Professor
Division of Applied Mathematics

March 3, 2017

Postdoctoral Experience Certificate

This is to certify that Dr. Venu Gopal has been doing postdoctoral work under my guidance since July 1, 2013 in the areas of numerical analysis and scientific computing. His working experience can be counted in two periods. The first period was from July 1, 2013 to April 30, 2015 under the Indo-US Virtual Institute for Mathematical and Statistical Sciences (VI-MSS) program funded by the Department of Science and Technology, Government of India and also partially supported by my personal grant, which was carried out in the Division of Applied Mathematics, Brown University, USA. The second period is from June 1, 2015 until now, under the Chinese Academy of Sciences President's International Fellowship Initiative for Postdoctoral Researcher (CAS-PIFI), which has been carried out in the School of Mathematical Sciences, University of Science and Technology of China, in Hefei, China.

Sincerely,

Chi-Wang Shu
Theodore B. Stowell University Professor of Applied Mathematics

Indian Institute of Science
Bangalore 560 012 India Tel: 91-80-22933213, 23600373 Fax: 91-80-23600146
Email: rangaraj@math.iisc.ernet.in Website: http://math.iisc.ernet.in/~rangaraj

Department of

Mathematics

Govindan Rangarajan Ph.D., Professor

Ref: MA/GR/SAVI/27

April 25, 2013

To
Dr. Venu Gopal
Department of Mathematics
University of Delhi
New Dehi 110 007

Dear Dr. Venu Gopal,

I am happy to inform you that your application to undertake a post-doctoral fellowship at the Institute for Computational and Experimental Research in Mathematics (ICERM), Brown University, Providence, RI, USA the period June 1, 2013 to February 28, 2014 has been approved by the Indo-US Virtual Institute for Mathematical and Statistical Sciences (VI-MSS). VI-MSS is funded by the Department of Science & Technology on the Indian side and the National Science Foundation on the US side. You will be provided financial assistance for the above visit as per the details given below:

1. International return airfare to your destination (up to a maximum of Rs. 1 lakh)

2. Fellowship: US Dollars 3000 per month

3. Associated costs (visa, health insurance, airport transfers etc): Rs. 50,000

You are required to submit a written report at the end of the fellowship and also acknowledge VI-MSS in any publication that may arise out of your fellowship. Kindly let me know whether you accept this offer. Thanking you,

Yours sincerely,

G. Rangarajan
Program Coordinator
Indo-US Virtual Institute for
Mathematical and Statistical Sciences

中國科學院

CHINESE ACADEMY OF SCIENCES

This is to certify that

Venu Gopal

is awarded a fellowship under

the CAS President's

International Fellowship

Initiative (PIFI)

for

Postdoctoral Researchers

in 2015.

C. Bai

PRESIDENT

CHINESE ACADEMY OF SCIENCES

中国科学技术大学

University of Science and Technology of China

CERTIFICATION OF EMPLOYMENT

This is to certify that Dr. Venu Gopal, citizenship of the Republic of India, Passport number: Z3634142, is currently employed as an Post-Doctoral researcher in the school of Mathematical Sciences under the Chinese Academy of Sciences President International of Fellowship Initiatives Program (PIFI). His current contract is between 1st June, 2015 and 31st, May, 2017.

Dated: 21st, September, 2016

University of Science and Technology of China

中国科学技术大学

University of Science and Technology of China

INCOME CERTIFICATION

To whom it may concern,

Dear Sir/Madam,

This is to certify that Mr. Venu Gopal, citizenship of the Republic of India, is currently a Postdoctoral fellow under the Chinese Academy of Sciences President International postdoctoral program. His current annual income is 200,000 RMB.

Dated: 23rd , September, 2015

University of Science and Technology of China

5০৲

दिल्ली विश्वविद्यालय

University of Delhi

विद्या-वाचस्पति ✱ Doctor of Philosophy (Ph.D.)

प्रमाणित किया जाता है कि नवम्बर, 2017 में

न्यूमेरिकल स्टडी ऑफ़ द फेज स्पेस स्ट्रक्चर ऑफ़ नॉनलीनियर डायनैमिकल

सिस्टम्स बेस्ड ऑन ववेलेट्स

पर शोध प्रबंध स्वीकृत हो जाने के उपरांत   विनय कुमार

को 2017 के दीक्षांत समारोह में दिल्ली विश्वविद्यालय की

विद्या-वाचस्पति की उपाधि प्रदान की गई ।

विभाग:गणित

This is to certify that after approval of the thesis on

Numerical Study of the Phase Space Structure of Nonlinear Dynamical Systems

Based on Wavelets

in November, 2017   Vinay Kumar

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 2017 .

Department: Mathematics

कुलसचिव
दिल्ली विश्वविद्यालय
Registrar
University of Delhi

दिल्ली,दिनांक   18 नवम्बर, 2017
Delhi, Dated the **18th November, 2017**

कुलपति
दिल्ली विश्वविद्यालय
Vice Chancellor
University of Delhi

नामांकन संख्या

Enrol.No.   ZH-904/99

029663

दिल्ली विश्वविद्यालय

University of Delhi

विद्या-वाचस्पति ✱ Doctor of Philosophy (Ph.D.)

प्रमाणित किया जाता है कि अक्टूबर, 2022 में

मॉडलिंग एंड एनालाइसिस ऑफ़ ब्लड फ्लो इन ह्यूमन सर्कुलेटरी सिस्टम

पर शोध प्रबंध स्वीकृत हो जाने के उपरांत **प्रदीप कुमार सिंह**

को 2023 के दीक्षांत समारोह में दिल्ली विश्वविद्यालय की

विद्या-वाचस्पति की उपाधि प्रदान की गई |

विभाग: **अनुप्रयुक्त विज्ञान एवं मानविकी**

This is to certify that after approval of the thesis on

Modeling and Analysis of Blood Flow in Human Circulatory System

in October, 2022 **Pradeep Kumar Singh**

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 2023.

Department: **Applied Sciences & Humanities**

कुलसचिव
दिल्ली विश्वविद्यालय
Registrar
University of Delhi

दिल्ली, दिनांक 25 फरवरी, 2023
Delhi, Dated the **25th February, 2023**

कुलपति
दिल्ली विश्वविद्यालय
Vice Chancellor
University of Delhi

नामांकन संख्या
Enrol.No. PH.D-181/13

995400

इंदिरा गांधी दिल्ली महिला तकनीकी विश्वविद्यालय
INDIRA GANDHI DELHI TECHNICAL UNIVERSITY FOR WOMEN
(Established by Govt. of NCT of Delhi vide Act 9 of 2012)

डॉक्टर ऑफ़ फिलॉसफी

यह प्रमाणित किया जाता है कि अप्लाईड साइन्सेज एंड ह्यूमैनिटीज़ विभाग में पंजीकृत संचिता शर्मा, (नामांकन संख्या 00205112014) सुपुत्री राजेन्द्र प्रसाद को गणित विषय में इस विश्वविद्यालय की डॉक्टर ऑफ़ फिलॉसफी की उपाधि 18/11/2021 को प्रदान की जाती है।

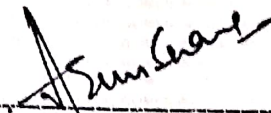इनके शोध प्रबंध का शीर्षक है : ऑन एफ्फीसिएंट सोल्यूशंस ऑफ़ सम मल्टी-ऑब्जेक्टिव एलोकेशन प्रोब्लम्स।

Doctor of Philosophy

This is to certify that **Sanchita Sharma** (Enrollment No. **00205112014**) D/o **Rajendra Prasad** registered in the Department of **Applied Sciences and Humanities** has been awarded the degree of Doctor of Philosophy of this University in the subject of **Mathematics** on 18/11/2021.

The title of her thesis is **On Efficient Solutions of Some Multi- Objective Allocation Problems.**

Date of Convocation : 23/12/2021

दिल्ली (भारत) / Delhi (India)

संकायाध्यक्ष (परीक्षा मामले)
Dean (Examination Affairs)

कुलपति
Vice Chancellor

Maharishi University of Information Technology
महर्षि सूचना प्रौद्योगिकी विश्वविद्यालय

MUIT

Upon the recommendation
of the Academic Council

This is to certify that **SWATI** has been awarded the degree of Doctor of Philosophy in **MATHEMATICS** of this University in the year **2022**.

Title of the thesis
"A STUDY OF PROBLEMS IN GRAPH THEORY AND PROBABILITY WITH APPLICATION"

विद्या परिषद की अनुशंसा पर

प्रमाणित किया जाता है कि स्वाति को गणित विषय में इस विश्वविद्यालय की डॉक्टर ऑफ़ फिलासफी की उपाधि वर्ष 2022 में प्रदान की गयी ।

शोध प्रबन्ध का शीर्षक
"ए स्टडी ऑफ़ प्रॉब्लम्स इन ग्राफ थ्योरी एंड प्रोबेबिलिटी विद एप्लीकेशन "

Lucknow (U.P), India
लखनऊ (उ.प्र), भारत
Dated/दिनांक : 01.08.2022

Registrar
कुलसचिव

Vice Chancellor
कुलपति

दिल्ली विश्वविद्यालय

University of Delhi

दर्शन-निष्णात **✳** Master of Philosophy

प्रमाणित किया जाता है कि सन् 2015 में परीक्षा के उपरांत

दर्शन-निष्णात की उपाधि के योग्य सिद्ध होने पर

लक्ष्मी रानी बसुमतरी

को 2016 के दीक्षांत-समारोह में उक्त उपाधि प्रदान की गई।

श्रेणी: प्रथम

विषय: गणित

This is to certify that having been examined in 2015 and found qualified

for the degree of Master of Philosophy

Lakshmi Rani Basumatary

was awarded the said degree at the Convocation held in 2016.

Division: First

Subject: Mathematics

कुलसचिव
दिल्ली विश्वविद्यालय
Registrar
University of Delhi

दिल्ली,दिनांक 19 नवंबर, 2016
Delhi, Dated the 19th November, 2016

कुलपति
दिल्ली विश्वविद्यालय
Vice Chancellor
University of Delhi

दिल्ली विश्वविद्यालय

University of Delhi

विद्या-वाचस्पति ✶ Doctor of Philosophy (Ph.D.)

प्रमाणित किया जाता है कि मई, 2022 में

हीट एंड मास ट्रान्सफर एनालिसिस ऑफ फ्री एंड फोर्स्ड कन्वेक्शन इन हॉरिजॉन्टल

रेक्टंगुलर एन्क्लोशर विद वाल हीट एंड कंसंट्रेशन सोर्सेस

पर शोध प्रबंध स्वीकृत हो जाने के उपरांत **लक्ष्मी राणी बसुमातारी**

को 2023 के दीक्षांत समारोह में दिल्ली विश्वविद्यालय की

विद्या-वाचस्पति की उपाधि प्रदान की गई |

विभाग: **गणित**

This is to certify that after approval of the thesis on

Heat and Mass Transfer Analysis of Free and Forced Convection in Horizontal

Rectangular Enclosure with Wall Heat and Concentration Sources

in May, 2022 **Lakshmi Rani Basumatary**

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 2023.

Department: **Mathematics**

कुलसचिव
दिल्ली विश्वविद्यालय
Registrar
University of Delhi

दिल्ली, दिनांक 25 फरवरी, 2023
Delhi, Dated the 25th February, 2023

कुलपति
दिल्ली विश्वविद्यालय
Vice Chancellor
University of Delhi

995786

नामांकन संख्या
Enrol.No. M.PHIL-42/13