KALASALINGAM
ACADEMY OF RESEARCH AND EDUCATION
(DEEMED TO BE UNIVERSITY)
Under sec. 3 of UGC Act 1956. Accredited by NAAC with "A" Grade

Anand Nagar, Krishnankoil - 626126, Srivilliputtur (via), Virudhunagar District, Tamilnadu.

APPLICATION FOR ADMISSION TO Ph.D. PROGRAMMES

Date of Application:17-04-2025

Department	MATHEMATICS	Application No.	2025010179
Area of Research	MATHEMATICS	Research Mode	PART TIME

Name :AKHILA C U

Date of Birth / Age :17-09-1997 / 27 Years

Gender :FEMALE

Category :OC

e-Mail ID :akhilacu2025@gmail.com

Mobile :+917356328913

Father's/Husband's Name	CHANDRASEKHARAPILLAI R	Father's/Husband's Occupation	FARMER
Family Income	75000	Residental Type	RURAL
Birth Place	THIRUVANANTHAPURAM	Mother Tongue	MALAYALAM
Religion	HINDU	Martial Status	MARRIED
Aadhaar No.	354716165625	PAN No.	AIHPU0955B
Physically Challenged	NO	Type of Disability	-

Address for Communication:
365
HARIHARAPURAM
VARKALA
THIRUVANANTHAPURAM DISTRICT
KERALA
INDIA
Pin-695310

Permenant Address:
365
HARIHARAPURAM
VARKALA
THIRUVANANTHAPURAM DISTRICT
KERALA
INDIA
Pin-695310

Qualification

Degree	Discipline	College/university	Year Passed	AVG/CGPA	Class	Mode
BSC	MATHEMATICS	UNIVERSITY OF KERALA	2018	81.93	1ST CLASS	REGULAR
MSC	MATHEMATICS	UNIVERSITY OF KERALA	2020	83.27	1ST CLASS	REGULAR

Experience

Organization	Designation	Experience From	Experience TO	Work Nature
UKFCET	ASSISTANT PROFESSOR	2021-05-03	1970-01-01	PERMANENT

Payment Details

Transaction ID	Reference	Date of transaction	Amount	Status
2025010179_250422194737	BHD5GJP0IX2STT	22-04-2025	600	SUCCESS

"Graph Coloring and Ramsey Theory: New Bounds and Applications"

Introduction:

Graph coloring and Ramsey theory are fundamental areas of graph theory, with numerous applications in computer science, operations research, and other fields. Graph coloring involves assigning colors to vertices or edges of a graph such that certain constraints are satisfied, while Ramsey theory deals with finding patterns in large graphs. This research proposal aims to develop new bounds and applications for graph coloring and Ramsey theory.

Research Objectives:

1. Improve existing bounds for graph coloring problems, such as chromatic number and edge chromatic number.

2. Develop new algorithms for graph coloring and Ramsey theory.

3. Explore applications of graph coloring and Ramsey theory in computer science, operations research, and other fields.

4. Investigate connections between graph coloring and Ramsey theory and other areas of mathematics.

Methodology:

1. Literature review: Study existing research on graph coloring and Ramsey theory.

2. Mathematical modeling: Develop mathematical models for graph coloring and Ramsey theory problems.

3. Algorithm design: Design and implement algorithms for graph coloring and Ramsey theory.

4. Computational experiments: Conduct computational experiments to test the performance of algorithms.

Expected Outcomes:

1. New bounds for graph coloring problems.

2. Efficient algorithms for graph coloring and Ramsey theory.

3. New applications of graph coloring and Ramsey theory in computer science, operations research, and other fields.

4. Deeper understanding of the connections between graph coloring and Ramsey theory and other areas of mathematics.

Potential Applications:

1. Scheduling: Graph coloring can be used to solve scheduling problems in computer science and operations research.

2. Resource allocation: Graph coloring can be used to allocate resources in networks and systems.

3. Network optimization: Ramsey theory can be used to optimize network structures and protocols.

4. Computer vision: Graph coloring and Ramsey theory can be used in computer vision and image processing.

Timeline:

1. Literature review: 3 months

2. Mathematical modeling and algorithm design: 6 months

3. Computational experiments: 6 months

4. Writing and revising the thesis: 9 months

UNIVERSITY OF KERALA

कर्मणि व्यज्यते प्रज्ञा

കേരള സർവകലാശാല

FACULTY OF SCIENCE

The Senate of the University of Kerala hereby makes known that **Akhila C.U.** *has been admitted to the Degree of Master of Science, she having been certified by duly appointed Examiners to be qualified to receive the same, and having been by them placed in the* **First** *Class in Branch* **Mathematics** *at the Examination held in the year* **May 2020**.

Given under the seal of the University

University Buildings

Thiruvananthapuram **January 03, 2022**

Vice Chancellor

0673742

UNIVERSITY OF KERALA

Serial No. : 21 00 2585
Ref. No. EG-XI : 21 14 1989 O

Thiruvananthapuram
Date: 06/01/2021

Name of Programme : MSc Mathematics
Semester : 4
Month & Year of Passing : May 2020
Name of Student : **AKHILA C U**

Exam Code : **620 17 402**
Candidate Code : **62018130002**

Statement of Marks

Subject Code	Subjects	Marks Awarded CA	ESA	Total
	Theory-A			
MM241	Complex Analysis II	23	58.5	81.5
MM242	Functional Analysis II	24	70	94
MM243	Field theory	24	57	81
MM244	Analytic Number Theory	25	72	97
	Theory-B			
MM245	Dissertation	-	90.5	90.5
MM246	Comprehensive Viva Voce	-	88	88
	Group Total	96	436	532
	Semester - 1			270
	Semester - 2			347.5
	Semester - 3			349
	Semester - 4			532

Result : Passed

Grand Total : 1499
(One Four Nine Nine)

Prepared by :
Checked by :
Section Officer :

Controller of Examinations

Pass requirements given overleaf
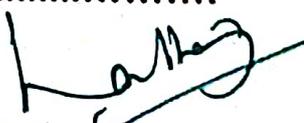
SREE NARAYANA COLLEGE, CHATHANNUR

Vol.No. **199**   Ser.No. **11**

TRANSFER CERTIFICATE

1. a) Name in full ...... AKHILA C U ......

   b) Date of Birth ...... 17-09-1997 ......

   (In figures & words) Seventeenth September Ninteen Ninty Nine .

   c) Date of Admission (with Ad.No.) 26|10|2018 Ad. No. 12912

   Date of leaving ...... 31|12|2020 ......

   d) Class (with Group) Studied in at the time of leaving ...... MSc Mathematics ......

   e) Whether qualified for promotion to a higher class ......

   f) Whether all fee and dues have been paid ...... yes ......

2. a) Examination presented for ...... II MSc Mathematics ......

   b) Reg.No.. & Date of Examination ...... 62018130002 / 2020-21

   c) Whether appeared for the examination ...... yes ......

   d) Parts passed in ...... Passed ......

   Parts failed in ......

Date : 6|1|2023

Principal
Principal
Sree Narayana College
Chathannoor

UKF COLLEGE
OF ENGINEERING & TECHNOLOGY
ISO 9001:2008 Institution

learning to succed

Approved by AICTE No. 06/06/KER/ENGG/2009-10/007 dtd. 08/06/09 & Affiliated to Kerala Technological University No. KTU/A/593/2015 dtd. 15/05/2015

UKF/EC/17-0/624   22-04-2025

EXPERIENCE CERTIFICATE

This is to certify that **Ms. Akhila C U, Revathy, Kedakulam, Hariharapuram P.O., Varkala, TVM – 695310** has been working in this college as Assistant Professor in the Department of Humanities and Science since 3rd May 2021.

This certificate is issued as per her specific request for applying Ph.D Programme at Kalasalingam University.

PRINCIPAL

आयकर विभाग

INCOME TAX DEPARTMENT

भारत सरकार

GOVT. OF INDIA

स्थायी लेखा संख्या कार्ड
Permanent Account Number Card

AIHPU0955B

नाम / Name
AKHILA C U

पिता का नाम / Father's Name
CHANDRASEKHARA PILLAI

जन्म की तारीख / Date of Birth
17/09/1997

हस्ताक्षर / Signature

In case this card is lost / found, kindly inform / return to :
Income Tax PAN Services Unit, UTIITSL
Plot No. 3, Sector 11, CBD Belapur,
Navi Mumbai - 400 614.

इस कार्ड के खोने/पाने पर कृपया सूचित करें/लौटाएं :
आयकर पैन सेवा यूनीट, UTIITSL
प्लाट नं: ३, सेक्टर ११ , सी.बी.डी.बेलापूर,
नवी मुंबई-४०० ६१४.

आयकर विभाग
INCOME TAX DEPARTMENT
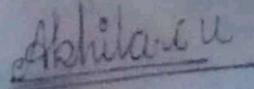
भारत सरकार
GOVT. OF INDIA

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पिता का नाम / Father's Name
CHANDRASEKHARA PILLAI

जन्म की तारीख / Date of Birth
17/09/1997

Akhila.c u
हस्ताक्षर / Signature

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प्लाट नं: ३, सेक्टर ११, सी.बी.डी.बेलापूर,
नवी मुंबई-४०० ६१४.

आयकर विभाग
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Akhilareu

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नवी मुंबई-४०० ६१४.

आयकर विभाग
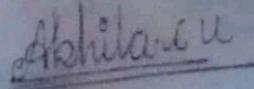## INCOME TAX DEPARTMENT

भारत सरकार
GOVT. OF INDIA

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आयकर पैन सेवा यूनीट, **UTIITSL**
प्लाट नं: ३, सेक्टर ११ , सी.बी.डी.बेलापूर,
नवी मुंबई-४०० ६१४.

653532J0J3603F9451985

GOVERNMENT OF KERALA
GENERAL EDUCATION DEPARTMENT
SECONDARY SCHOOL LEAVING CERTIFICATE

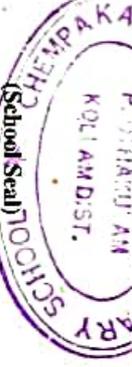Register Number: 143586   Month & Year: MARCH 2013   No. of Chances : 1

This is to certify that the candidate herein has appeared for the SSLC Examination and secured the following grades

1.	Name of Candidate	: AKHILA. C. U
2.	Name in Regional Language	: അഖില സി യു
3.	Name of School	: Chempakassery H S S Bhoothakkulam
4.	Admission No.	: 10149
5.	Date of Birth (in figures)	: 17/09/1997
	(in words)	: SEVENTEENTH SEPTEMBER NINETEEN NINETY SEVEN
6.	Sex	: FEMALE
7.	Religion & Caste	: HINDU, NAIR
8.	Whether SC/ST/OEC/OBC/GL	: GENERAL
9.	Nationality	: INDIAN
10.	Name of Mother	: USHAKUMARI
11.	Name of Father	: CHANDRASEKHARA PILLAI
12.	Name of Guardian	: CHANDRASEKHARA PILLAI
13.	Home Address	: REVATHY,PALAVILA,KEDAKULAM
		HARIHARAPURAM P O, PIN: 695310, THIRUVANANTHAPURAM

Subject	Grade	Grade in words
First Language Paper - I (MALAYALAM)	A+	A Plus
First Language Paper - II (MALAYALAM)	A+	A Plus
English	A+	A Plus
Hindi	A+	A Plus
Social Science	A+	A Plus
Physics	A+	A Plus
Chemistry	A+	A Plus
Biology	A	A Only
Mathematics	A+	A Plus
Information Technology	A+	A Plus

RANGE OF GRADES

A+	90% and above: Outstanding	B	60% - 69%	: Good	D+	30% - 39%	: Marginal
A	80% - 89%	: Excellent	C+	50% - 59%	: Above Average	D	20% - 29%	: Need Improvement
B+	70% - 79%	: Very Good	C	40% - 49%	: Average	E	Below 20%	: Need Improvement

Eligibility for higher studies - Minimum D+ grade for each paper

ELIGIBLE FOR HIGHER STUDIES

14. Identification Marks
1. A MOLE ON THE RIGHT HAND FINGER
2. A MOLE ON THE RIGHT ARM

(School Seal)

Name & Signature of the Head of School
SUDHA.V.S
Headmistress
Chempakassery H.S.S.
Bhoothakkulam

Date of Publication of Result : 24/04/2013

JOHNS V. JOHN
SECRETARY
Board of Public Examinations, Kerala

UKF COLLEGE
OF ENGINEERING & TECHNOLOGY
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learning to succeed

Approved by AICTE No. 06/06/KER/ENGG/2009-10/007 dtd. 08/06/09 & Affiliated to Kerala Technological University No. KTU/A/593/2015 dtd. 15/05/2015

UKF/SM/NOC/29-0/85   22-04-2025

NO OBJECTION CERTIFICATE

This is to certify that **Ms. Akhila C U** is working in our institution as Assistant Professor in the Department of Humanities & Science since 3rd May 2021. We have No objection in admitting her for the Ph.D Programme (Part-time) in the Kalasalingam University on the condition that the day to day work in the college should not be affected in any manner.

PRINCIPAL