



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

APPLICATION FOR ADMISSION TO Ph.D. PROGRAMMES

Date of Application:16-06-2020

Department	PHYSICS	Application No.	20200090
Area of Research	SPECTROSCOPY	Research Mode	FULL TIME

Name :ARUNTHATHI A
Date of Birth / Age :01-07-1981 / 39 Years
Gender :FEMALE
Category :SC
e-Mail ID :arunthathi67@gmail.com
Mobile :9531837507



Father's/Husband's Name	W/O B. DHANASEKAR	Father's/Husband's Occupation	POLICE CONSTABLE
Family Income	400000	Residential Type	RURAL
Birth Place	TAMIL NADU	Mother Tongue	TAMIL NADU
Religion	HINDU	Martial Status	MARRIED
Aadhaar No.	933773530897	PAN No.	ASNPA5541K
Physically Challenged	NO	Type of Disability	-
Address for Communication: C/O VIJAYA STUDIO SHADIPUR PORT BLAIR SOUTH ANDAMAN DISTRICT ANDAMAN AND NICOBAR ISLANDS INDIA Pin-744106		Permenant Address: C/O VIJAYA STUDIO SHADIPUR PORT BLAIR SOUTH ANDAMAN DISTRICT ANDAMAN AND NICOBAR ISLANDS INDIA Pin-744106	

Qualification						
Degree	Discipline	College/university	Year Passed	AVG/CGPA	Class	Mode
BSC	PHYSICS	MADURAI KAMRAJ UNIVERSITY	2001	1057	SECOND	REGULAR
MSC	PHYSICS	ALAGAPPA UNIVERSITY	2019	858	FIRST	DISTANCE
B.ED	PHYSICAL SCIENCE	TTEU	2012	771	FIRST	REGULAR

Experience					
Organization	Designation	Experience From	Experience TO	Work Nature	
DBRAIT	PTI	2018-07-23	2018-12-12	NON TEACHING STAFF	
DBRAIT	PTI	2019-01-04	2019-03-25	NON TEACHING STAFF	

Payment Details				
Transaction ID	Reference	Date of transaction	Amount	Status
20200090_200616170800	SUR28904005646	16-06-2020	600	SUCCESS

A. ARUNTHATHI M.SC.,B.ED.,

Spectroscopic Analysis of Medicinal Plants Adopted by Tribes of Andaman and Nicobar Islands.

Traditional knowledge of medicinal plants and their use by the indigenous healers and drug development in the present are not only useful for conservation of cultural tradition and biodiversity but also for community health care and drug development in the local people. The indigenous knowledge on medicinal plants appears when humans started and learned how to use the traditional knowledge on medicinal plants.

The investigation on the medicinal plants is increasing progressively all over the world and more stress is being placed on herbal drugs. It is the urgent need to exploit the available knowledge with tribal people for the other people.

The Nicobari tribe resides in the Nicobar district of Andaman and Nicobar Islands. The area is covered with natural evergreen type of vegetation.

The present work deals with the systematic survey and reporting of medicinal potential of some plants from tribal area of Andaman & Nicobar Islands

FTIR spectroscopy is used to develop a rapid and effective analysis method for studying integrally the main constituents in the medicinal plants of Banaraabaa, ChaahiFicus and Inyaang. The chemical constituents in the leaves of these plants will be identified and monitored for the qualities of medicinal properties. FTIR will be applied and IR spectrum in mid infrared would be used for discriminating and to identify various functional groups present in the medicinal plants. The findings would expected to indicate the presence of a high concentration of lignin and polysaccharides in these medicinal plants. The studies would show clearly the differences of categories of chemical constituents among the taxa investigated.

The study would reveal clearly the differences of categories of chemical constituents from the spectral profiles in the leaves of the medicinal plants. Spectral differences would be the objective reflection of componential differences. The present investigation would show the presence of carbohydrates, amino acids, amides, starch, calotropin, calotropogenin, phosphates, lipids, glycogen and cellulose besides a high concentration of lignin and polysaccharides in leaf samples of the plants investigated. Polysaccharides are one of the main effective constituents which have the obvious functions on enhancing body immunity, antitumor and resisting radiation damage.

So, FTIR spectrum reflecting objectively the panorama of chemical constituents in a complex system is a most credible method to validate and identify the mix-substance systems such as traditional medicine and herbal medicine.

spectroscopy has emerged as one of the major tools for biomedical applications and has made significant progress in the field of clinical evaluation. Research have to be carried out on a number of natural tissues using spectroscopic techniques, including FTIR spectroscopy. These vibrational spectroscopic techniques are relatively simple, reproducible, nondestructive to the tissue, and only a small amount of material with a minimum sample preparation are required.

These techniques also provide molecular-level information allowing investigation of functional groups, bonding types, and molecular conformations. Spectral bands in vibrational spectra are molecule specific and

provide direct information about the biochemical composition. These bands are relatively narrow, easy to resolve, and sensitive to molecular structure,

It is strongly believed that in studies related to spectroscopic techniques, both the reliable experimental procedure and characterization of spectral peak position and their assignment along with accurate peak detection. Some of the medicinal plants shown below are being used by the Tribes of Andaman and Nicobar Islands would be taken for the analysis.

S.No.	Local name of Medicinal Plants	Latin name	Family Part used	Disease Indications	Mode of preparation/ Uses	Dose &Duration
1	Banaraabaa	Jusoninuon sp.	. Leaf	Feverand Body ache	Prepared decoction (Kwath) of the leaves boiled with 4 part of water.	50-100 ml once a day 2
2.	ChaahiFicus	microcarpaL.f.	Stem & leaf Fracture	Joint pain	Prepared oil with some other drugs and Applied externally then covered with clothes	Once a day for 1 month 3
3	Inyaang	Calophyllum L.	Leaf	Pain in the eye and Styte	Eye wash by the leaves juice and water	Twice a day for 5-7 days



Madurai Kamaraj University

Book No. 4

Dis No. 125

Register No. 98113100

Centre No. 306

Folio No. 364

Palkalai Nagar,

Madurai-625 021

Dated : 1 JUL 2002

PROVISIONAL CERTIFICATE

B.Sc.

This is to certify that A. Arunthathi _____
has qualified for the Degree of Bachelor of Science, he / she having passed the
B. Sc. Degree Examination held in April 2001 as follows :

Part I	<u>Tamil</u>	<u>Third</u> Class
Part II	English	<u>Third</u> Class
Part III	Main <u>Physics</u>	<u>Second</u> Class

S.P. M...
ASST. DEPUTY REGISTRAR.

V.V. S. Chel...
CONTROLLER OF EXAMINATIONS

SECTION
S
KAMARAJ UNIVERSITY

ASST



அழகப்பா பல்கலைக்கழகம்
ALAGAPPA UNIVERSITY

(Accredited with A+ Grade by NAAC (CGPA: 3.64) in the Third Cycle,
Graded as Category - I University and Granted Autonomy by MHRD - UGC,
2019: Asia Rank - 216, QS BRICS Rank -104, QS India Rank - 20)
KARAIKUDI - 630 003, TAMILNADU, INDIA

Reg. No.: 153450010 ✓

FACULTY OF SCIENCE

The Syndicate of the Alagappa University

hereby confers the degree of

MASTER OF SCIENCE IN PHYSICS

on

ARUNTHATHI A

with **FIRST CLASS** in **MAY 2019** for having fulfilled

the requirements for the degree

Given under the seal of the University





கல்விப் புலம்
FACULTY OF EDUCATION



தமிழ்நாடு ஆசிரியர் கல்வியியல் பல்கலைக்கழக ஆட்சிக்குழு
2012 ஆம் ஆண்டு மே மாதம் நடந்த கல்வியியல் தேர்வில்
அருந்ததி ஆ என்பவர்

எழுத்துத் தேர்வில் முதலாம் வகுப்பிலும், செய்முறைத் தேர்வில்
தனிச்சிறப்புடன் கூடிய முதல் வகுப்பிலும் தேர்ச்சி பெற்றார் என்று தக்க தேர்வாளர்கள்
சான்றளித்தபடி, கல்வியியல் இளையர் என்னும் பட்டத்தை அவருக்குப்
பல்கலைக்கழக இலச்சினையுடன் வழங்குகிறது.

The Syndicate of the **TAMILNADU TEACHERS EDUCATION UNIVERSITY**
ARUNTHATHI A
hereby makes known that

has been admitted to the Degree of **Bachelor of Education**, he / she having been
certified by duly appointed Examiners to be qualified to receive the same at the Examination
held in May 2012 and having been placed in **First Class** in the
Theory Examination and in **First Class with Distinction** in the Practical Examination.



Given under the seal of the University.

(Handwritten signatures)



ALAGAPPA UNIVERSITY

 (Accredited with A+ Grade by NAAC [CGPA 3.64] in the Third Cycle,
 Graded as Category - I University and Granted Autonomy by MHRD - UGC,
 2019; Asia Rank - 216, QS BRICS Rank - 104, QS India Rank - 20)

KARAIKUDI - 630 003, TAMILNADU, INDIA

M.Sc.(PHYSICS)

STATEMENT OF MARKS - CUMULATIVE

013
0691

NAME		REG. NO. : 153450010					
CODE	SUBJECT	MARKS				RESULT	MONTH & YEAR
		I	E	T	In words		
34511	CLASSICAL AND STATISTICAL MECHANICS	-	50	50	FIVE ZERO	PASS	MAY 2018
34512	MATHEMATICAL PHYSICS	-	73	73	SEVEN THREE	PASS	MAY 2019
34513	INTEGRATED AND DIGITAL ELECTRONICS	-	73	73	SEVEN THREE	PASS	MAY 2019
34514	ELECTROMAGNETIC THEORY	-	86	86	EIGHT SIX	PASS	MAY 2019
34515	NUMERICAL METHODS AND PROGRAMMING	-	69	69	SIX NINE	PASS	MAY 2019
34516	ADVANCED ELECTRONICS AND PHYSICS LAB-I	-	83	83	EIGHT THREE	PASS	MAY 2018
34521	SPECTROSCOPY	-	67	67	SIX SEVEN	PASS	MAY 2019
34522	QUANTUM MECHANICS	-	79	79	SEVEN NINE	PASS	MAY 2019
34523	SOLID STATE PHYSICS	-	70	70	SEVEN ZERO	PASS	MAY 2019
34524	NUCLEAR AND PARTICLE PHYSICS	-	66	66	SIX SIX	PASS	MAY 2019
34525	MATERIAL SCIENCE	-	65	65	SIX FIVE	PASS	MAY 2019
34526	ADVANCED ELECTRONICS AND PHYSICS LAB-II	-	77	77	SEVEN SEVEN	PASS	MAY 2019
*** End of Statement ***							
TOTAL : EIGHT FIVE EIGHT		858		CLASS FIRST			

Mode of Study: Distance Education

ALAGAPPA NAGAR
 KARAIKUDI - 630 003.
 Date of Issue: 22-Aug-2019
 DATE: 26/07/2019

Written Paper 100
 Practical 100
 Dissertation

MAX. MARKS 100
 PASSING MINIMUM 50%
 50%
 50%

Dy. Registrar

211160



S.ARUN

Dy. Controller

Dr.K.UTHAYASURIYAN
 Controller of Examinations



MADURAI KAMARAJ UNIVERSITY

B.Sc PHYSICS (SEMESTER)

RS 0306407

STATEMENT OF MARKS

NAME OF THE CANDIDATE ARUNTHATHI A		REGISTER NO. 98113100	CENTRE NO. 306	COLLEGE OF STUDY ALAGAPPA GOVT. ARTS COLLEGE - KARAIKUDI	EXAM M & YR APR 2001	DATE OF PUBLICATION 30-JUL-2001					
SUB CODE	SUBJECT DESCRIPTION	MARKS OBTAINED				MARKS OBTAINED					
		MAX. MARK	I	E	T	R	M	M	M	M	
1A1	TAMIL PAPER - I	100	100	042	042	P	498	050	050	P	499
1A2	TAMIL PAPER - II	100	100	043	043	P	499	042	042	P	499
1A3	TAMIL PAPER - III	100	100	045	045	P	491	041	041	P	499
1A4	TAMIL PAPER - IV	100	100	035	035	P	400	035	035	P	400
3A1	ENGLISH PAPER - I	100	100	036	036	P	401	037	037	P	401
3A2	ENGLISH PAPER - II	100	100	035	035	P	400	035	035	P	401
3A3	ENGLISH PAPER - III	100	100	035	035	P	400	038	038	P	401
3A4	ENGLISH PAPER - IV	100	100	035	035	P	400	041	041	P	401
4A1	MATHEMATICS PAPER I	75	75	047	047	P	490	048	048	P	499
4A2	MATHEMATICS PAPER II	75	75	036	036	P	460	070	070	P	400
4A3	MATHEMATICS PAPER III	75	75	038	038	P	460	064	064	P	401
4A4	MATHEMATICS PAPER IV	75	75	044	044	P	461	073	073	P	401
AT1	BASIC DISCRETE ELECTRONICS	50	50	024	024	P	460	075	075	P	401
AT2	APPLN. OF ELECTRONIC DEVICES & RADIO COMMUNICATION	50	50	018	018	P	419	080	080	P	400
AT3	SIMPLE CONTROL SYSTEMS & LINEAR INTEGRATED CIRCUITS	50	50	031	031	P	410	080	080	P	400
AT4	COMMUNICATION SYSTEMS & COMPUTERS	50	50	019	019	P	410	080	080	P	400
AT6	APPLIED ELECTRONICS & INSTRUMENTATION-PRACTICAL-I	50	50	028	028	P	410	075	075	P	401
ATR	APPLIED ELECTRONICS & INSTRUMENTATION-PRACTICAL-II	50	50	043	043	P	460	080	080	P	400
P11	HEAT&THERMODYNAMICS AND STATISTICAL MECHANICS	100	100	041	041	P	418	080	080	P	400
P12	ELECTRICITY & SOUND	100	100	038	038	P	418	080	080	P	400

PART I - 0165/400
PART II - 0141/400
PART III - 1037/2800

S. S. Chelliah
DR T JOHN SAHAYAM CHELLIAH
Controller of Examinations

TOTAL MARKS
PASSING MINIMUM - EXTERNAL - 35%
AND INTERNAL

PART I - THIRD
PART II - THIRD
PART III - SECOND

S. S. Chelliah
Signature of the Candidate

Any alteration or overwriting makes this statement of Marks invalid.

Dated: Paikalai Nagar, Madurai-625021.

Other Abbreviations - R - Result, P - Pass, F - Fail, AAA - Absent, SUBS - Subject, M - Month, [A - April, N - November] YR - Year, MAX - Maximum, I - Internal, E - External, T - Total



தமிழ்நாடு ஆசிரியர் கல்வியியல் பல்கலைக்கழகம்
Tamilnadu Teachers Education University
CHENNAI - 600 005



B.Ed. DEGREE EXAMINATION

STATEMENT OF MARKS

NAME OF THE CANDIDATE ARUNTHATHI A				DATE OF BIRTH 01/07/1981	
REGISTER NO. 1190811BD008	MONTH & YEAR May 2012	COLLEGE CODE 11908	DATE OF PUBLICATION 11/08/2012		
NAME OF THE SUBJECT(S)	SUBJECT CODE	MARKS SECURED		TOTAL MARKS SECURED	RESULT
		INT.	EXT.		
Core Subject(s)					
Education in the Emerging Indian Society	UDAA	20	43	063	P
Psychology of Learning and Human Development	UDAB	20	54	074	P
Educational Innovations and Management	UDAC	19	42	061	P
Elective Subject					
Environmental Education	UDED	20	54	074	P
Optional Subject(s)					
Physical Science Paper - I	UPS1	20	47	067	P
Tamil Paper - I	UTA1	20	52	072	P
Practical					
Group-A				138	
Group-B				138	
Group-C				084	
Total (Group-A+Group-B+Group-C)				360	P
Total					
Theory : 411 / 600					
Practical : 360 / 400					
--- End of the Statement ---					

	MARKS	INT.	EXT.	AGRE
THEORY	MAXIMUM	20	80	100
	PASSING MINIMUM	-	36	50
PRACTICAL	MAXIMUM	-	-	400
	PASSING MINIMUM	-	-	200

OTHER ABBREVIATIONS

RA - Re-Appear
P - Pass
AAA - Absent



(Dr. M.JAYAKUMAR)

Controller of Examinations



SRI RAAJA RAAJAN COLLEGE OF EDUCATION FOR WOMEN

(Approved by NCTE & Affiliated to Tamilnadu Teacher Education University)
KARAIKUDI - 630 001, Sivagangai District.

TRANSFER CUM CONDUCT CERTIFICATE

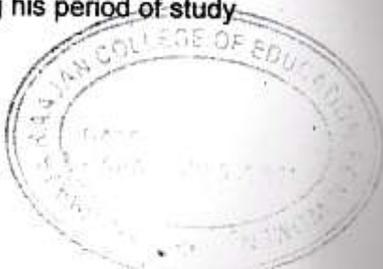
Adm. No.

Sl. No.

0063

1. Name of the Student : ARUNTHATHI. A
2. Date of Birth as entered in the Admission Register : 01.07.1981
One. Seven. Nineteen Eighty one
3. Community : OC/BC/MBC/DNC/SC/ST ✓
4. Caste : Parayan.
5. Sex : Female
6. Nationality / Religion : Indian / Hindu
7. Personal Marks of Identification : 1. A mole on the right fore arm
2. A Scar on the fore head
8. Course in which the student was studying at the time of leaving : B.Ed.
9. Subjects studied : Optional I : Physical Science.
Optional II : Tamil.
10. Date of admission to the College : 02.09.2011
11. Date on which the student left the college : 08.06.2012
12. Whether qualified for promotion to a higher class : Refer Mark Statement
13. Whether the student has paid all the fees due to the college : YES.
14. Date on which application for Transfer Certificate was made : 08.06.2012
15. Student's Conduct & Character during his period of study : Good

Date



PRINCIPAL
SRI RAAJA RAAJAN COLLEGE OF EDUCATION
FOR WOMEN
KARAIKUDI
PRINCIPAL



अंडमान तथा निकोबार प्रशासन
ANDAMAN & NICOBAR ADMINISTRATION
डॉ. भीमराव अंबेडकर प्रौद्योगिकी संस्थान
Dr. B.R. AMBEDKAR INSTITUTE OF TECHNOLOGY
(NAAC ACCREDITED)

पहाड़ पोर्ट ब्लेयर
अंडमान तथा निकोबार द्वीप समूह

PAHARGAON, PORT BLAIR - 744103
ANDAMAN & NICOBAR ISLANDS



F.No.2-20/DBRAIT/Estt/2019 | 1728

Dated 24/07/2019

TO WHOM IT MAY CONCERN

This is to certify that Smti A. Arunthathi has worked as a Part Time Instructor (Physics) in the Department of Humanities of this Institute for the period as shown here as under :-

- 1) From 23.07.2018 to 12.12.2018
- 2) From 04.01.2019 to 25.03.2019

I wish her all success in her future endeavors.




23/3/19
Dean (Academic)
Dean (Academic)
डा. भीमराव अंबेडकर प्रौद्योगिकी संस्थान
DR. B.R. AMBEDKAR INSTITUTE OF TECHNOLOGY
पहाड़गाव, पोर्ट ब्लेयर
Pahargaon, Port Blair - 744103

आयकर विभाग
INCOME TAX DEPARTMENT



भारत सरकार
GOVT. OF INDIA

D ARUNTHATHI

ANDISAMY

01/07/1981

Permanent Account Number

ASNPA5541K

Signature



09062010



भारत सरकार

Government of India



अरुन्धती. ए

Arunthalhi, A

जन्म तिथि / DOB : 01/07/1981

महिला / Female



9337 7353 0897

आधार - आम आदमी का अधिकार

SC

சான்றிதழ் எண்

Certificate No. 929/96



மாவட்ட குறியீடு எண்

District Code

வட்ட குறியீடு எண்

Taluk Code

விராமக் குறியீடு எண்

Village Code

1	5
0	3
9	9

415744

சாதிச்சான்றிதழ்

COMMUNITY CERTIFICATE

ப.கு.எ. மாவட்டம் திருப்பத்தூர் வட்டம்

செல்வன் தகப்பனார் /
கணன் பெயர் திருப்பத்தூர் இந்து பணியன்வகுப்பைச் சார்ந்தவர் தாழ்த்தப்பட்டோர் மற்றும் பழங்குடியினர் உத்தரவுகள்
(திருத்தப்பட்ட) சட்டம், 1976, வரிசை எண். 50, படி தாழ்த்தப்பட்ட
பழங்குடியினர் பிரிவைச் சார்ந்தவர் என சான்றளிக்கப்படுகிறது.This is to Certify that Son of / Daughter of
Thiru of Village / Town
Taluk District of the State of Tamil Nadu belongs to
..... Community, which is recognised as a Scheduled Caste as
per the Scheduled Caste and Scheduled Tribe Orders (Amendment) Act, 1976, vide
Serial No.2. திரு / திருமதி / செல்வி / செல்வன்
என்பவரும் அவருடைய குடும்பத்தினரும் தமிழ்நாட்டில்
மாவட்டத்தில் வட்டத்தில்
கிராமத்தில் / நகரத்தில் வசித்து வருகிறார்கள் என சான்றளிக்கப்படுகிறது.2 It is certified that Thiru / Tmt. / Selvi / Selvan
and his / her family ordinarily reside(s) at village / Town
Taluk District of Tamil Nadu.கையொப்பம்
Signatureநாள்
Dateதலை எழுத்துக்களில் பெயர்
Name in Capital Lettersபதவிப் பெயர்
DesignationTAHSILDAR
TIRUPPATTUR (P.T.T.DIST.)