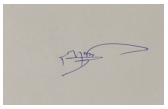
KALASALINGAM
ACADEMY OF RESEARCH AND EDUCATION
(DEEMED TO BE UNIVERSITY)
Under sec. 3 of UGC Act 1956. Accredited by NAAC with "A" Grade

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

APPLICATION FOR ADMISSION TO Ph.D. PROGRAMMES

Date of Application:24-12-2020

Department	BIOTECHNOLOGY	Application No.	202020187
Area of Research	BIOCHEMISTRY	Research Mode	PART TIME



Name :KRISHNAKUMAR

Date of Birth / Age :03-02-1971 / 49 Years

Gender :MALE

Category :BC

e-Mail ID :krishnak@thyrocare.com

Mobile :8451939706

Father's/Husband's Name	SIVAPANDI	**Father's/Husband's Occupation**	FARMER
Family Income	20 LAKH	**Residental Type**	RURAL
Birth Place	AVUDAIALPURAM, IDINDAKARI(PO), NELLAI(DT), TAMIL NADU	**Mother Tongue**	TAMIL
Religion	HINDU	**Martial Status**	MARRIED
Aadhaar No.	537368785407	**PAN No.**	BCYPK4769F
Physically Challenged	NO	**Type of Disability**	-

Address for Communication:
E-201, SECOND FLOOR, PANCHAVATI PLAZA
PLOT NO 92 - 96, SECTOR-5, GHANSOLI
NAVIMUMBAI
THANE DISTRICT
MAHARASHTRA
INDIA
Pin-400701

Permenant Address:
S/O.SIVAPANDI, NORTH STREET
AVUDAIALPURAM, IDINDAKARAI (PO)
RADHAPURAM(TK)
TIRUNELVELI DISTRICT
TAMILNADU
INDIA
Pin-627104

Qualification

Degree	Discipline	College/university	Year Passed	AVG/CGPA	Class	Mode
B.SC	ZOOLOGY	MANONMANIAM SUNDARANAR UNIVERSITY	1993	76.6	FIRST	REGULAR
M.SC	ZOOLOGY	MANONMANIAM SUNDARANAR UNIVERSITY	1995	62.9	FIRST	REGULAR

Experience

Organization	Designation	Experience From	Experience TO	Work Nature
THYROCARE TECH PVT LTD	DY.GENERAL MANAGER	2001-03-01	1970-01-01	CLINICAL LABORATORY

Payment Details

Transaction ID	Reference	Date of transaction	Amount	Status
202020187_201224142734	VHMP9590479460	24-12-2020	600	SUCCESS

Research Proposal

Running Title: Prevalence and clinical patterns of hemoglobinopathies diagnosis in Indian population by using CE-HPLC method : A pilot study

Background of research area :

The hemoglobinopathies comprise inherited disorders of the structure or synthesis of hemoglobin. They are the commonest single gene disorders in the world. It is estimated that about 450,000 infants with hemoglobinopathies are born in the world. Almost 85.9% of these hemoglobinopathies are sickle cell disease (SCD). Births of children with β-thalassemia alone or combined with hemoglobin (Hb) E are about 44, 000 (9.7%) per year, whereas infants affected with Hb Barts and HbH disease are about 20,000 (4.4%). Approximately 80% of the annual births of babies with these disorders occur in low- or middle-income countries. These disorders originated in populations in tropical Africa, Asia, and the Mediterranean region and have spread via migration throughout the world. They are, therefore, of concern in all countries

Literature of review

The prevention of inherited haemoglobinopathies has been internationally recognized as a health priority for several decades (Cousens et al. 2010). Both voluntary programmes to identify carriers in high school students (Mitchell et al. 1996; Amato et al. 2014) and mandatory premarital testing Bozkurt 2007; Loukopoulos 2011; Alswaidi et al. 2012) have been successfully employed, with the reduction in affected births achieved via an informed decision made by carriers either regarding their choice of partner or early prenatal testing and selective termination of pregnancy (Giordano 2009; Miri et al. 2013).

The current population of India is estimated to be 1.37 billion (PRB 2018), equivalent to 18% of the global total and despite rapid urbanisation some 67% of people in India continue to live in rural areas. In terms of health indicators, the rural population significantly lags their urban counterparts, as reflected by the rural infant mortality rate of 38/1000 live births compared with 23/1000 in towns and cities (RGI 2017). Further, differences within the country, both in terms of the prevalence and causes of diseases across the 29 states, are highlighted in the recent comprehensive report on the burden of disease at the individual state level. The report also confirms a significant overall shift from communicable to non-communicable diseases, with congenital defects listed among the 20 commonest causes of disease listed (India State-Level Disease Burden Initiative Collaborators 2017). The genetic diversity of the Indian population, with large numbers of endogamous ethnic, geographical, religious and social groupings each with extended, unbroken genealogical histories, adds to the complexity of the prevalence and burden of genetic disorders (Basu et al. 2016; Nakatsuka et al. 2017), as observed in regional and caste-specific analyses of mutation data on haemoglobinopathies (Sinha et al. 2009; Black et al. 2010; Trehan et al. 2015).

My Aim and Objectives: (Hemoglobinopathies in India—Clinical and Laboratory Aspects**)**

1. To study the different clinical patterns of hemoglobinopathies diagnosed by high-performance liquid chromatography (HPLC) in India population.

2. This pilot study is aimed to find the prevalence of hemoglobinopathies in India and identify the change in the demographic profile.

Data collection and laboratory Analytical Methods:

1. Sysmex XN9000 Hematology 6 part analyzer 2. Biorad variant II (CE HPLC) 3. Sebia CE

Study design & Statistical resource :

Expected outcome and research recommendation:

The Government of India is presently engaged in the implementation of a prevention and control programme for two major forms of haemoglobinopathies, thalassaemia major and sickle cell disease, with guidelines for their prevention and management formulated under the National Health Mission. Based on projections for the population up to the year 2026, the annual blood requirement for treatment will increase to 9.24 million units, together with an 86% increase in budgetary requirements which then would account for over 19% of the current National Health Budget. To avert a public health crisis there is an urgent need to fully implement the prevention programme for haemoglobinopathies.

From the above projections and the assessment of available resources, it is evident that effective implementation of well-designed and efficiently implemented prevention strategies is urgently required. In India, screening for the detection of carriers in an annual cohort of adolescents in schools and/or of all pregnant women is the most feasible prevention strategy available for reducing the birth of children affected with thalassaemia. Besides improving genetic literacy in the population, an important side benefit of such screening programmes would be the capacity to derive accurate, representative data on the incidence of the major haemoglobinopathies at state and community levels which, in turn, would facilitate the compilation of comprehensive disease registries.

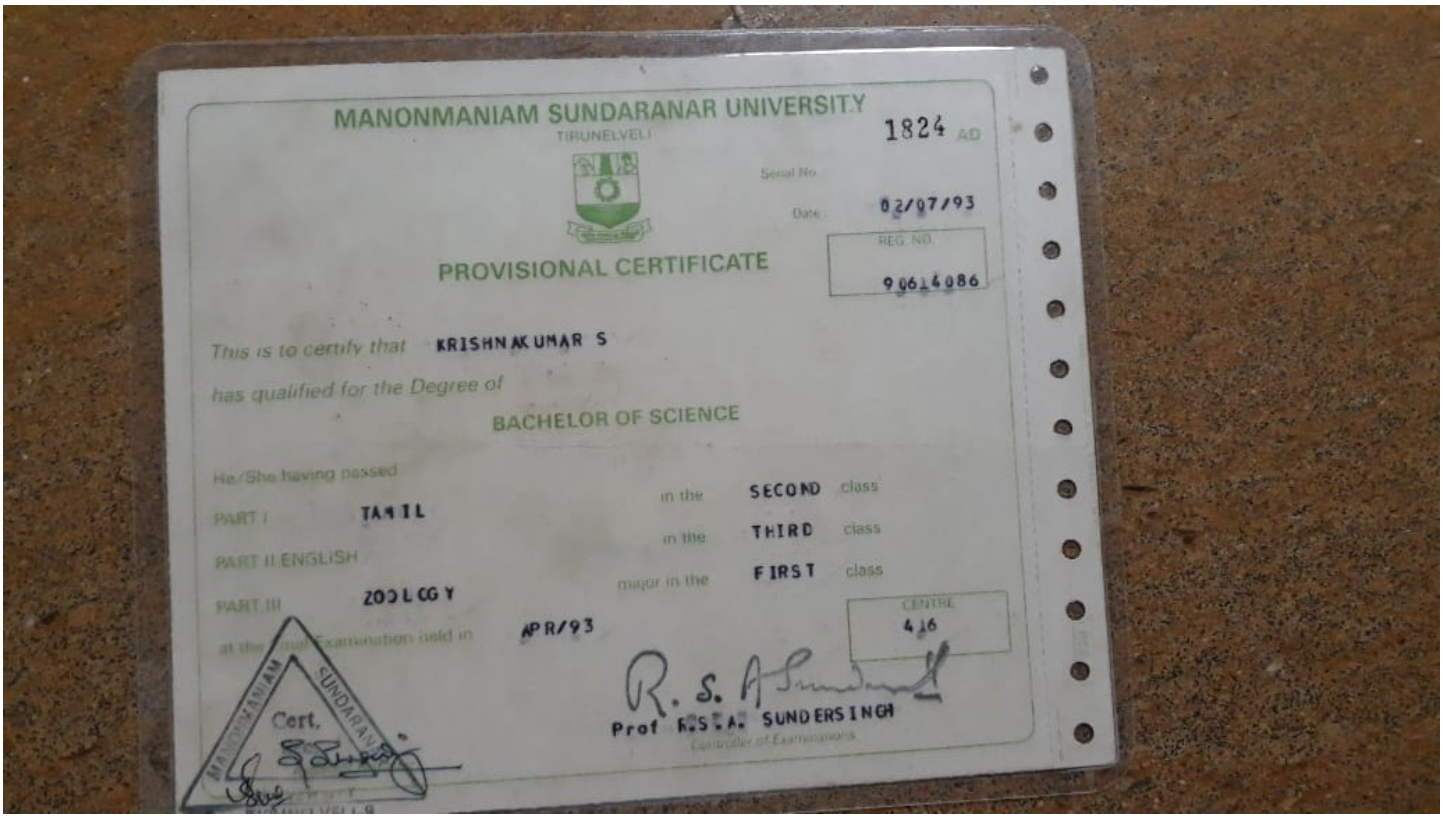
Reference:

Cousens NE, Gaff CL, Metcalfe SA, Delatycki MB (2010) Carrier screening for Beta-thalassaemia: a review of international practice. Eur J Hum Genet 18:1077–1083

Mitchell JJ, Capua A, Clow C, Scriver CR (1996) Twenty-year outcome analysis of genetic screening programs for Tay-Sachs and β-thalassemia disease carriers in high schools. Am J Hum Genet 59:793–798

Giordano PC (2009) Prospective and retrospective primary prevention of hemoglobinopathies in multiethnic societies. Clin Biochem 42:

Sujata Sinha etal (2020). Haemoglobinopathies in India: estimates of blood requirement and treatment costs for the decade 2017–2026, J Community 40 Genet, 11:39–45



MANONMANIAM SUNDARANAR UNIVERSITY

TIRUNELVELI

1824 AD

Serial No.

Date 02/07/93

REG. NO. 9061086

PROVISIONAL CERTIFICATE

This is to certify that KRISHNAKUMAR S

has qualified for the Degree of

BACHELOR OF SCIENCE

He/She having passed

PART I TAMIL

PART II ENGLISH

PART III ZOOLOGY

at the Examination held in APR/93

in the SECOND class

in the THIRD class

major in the FIRST class

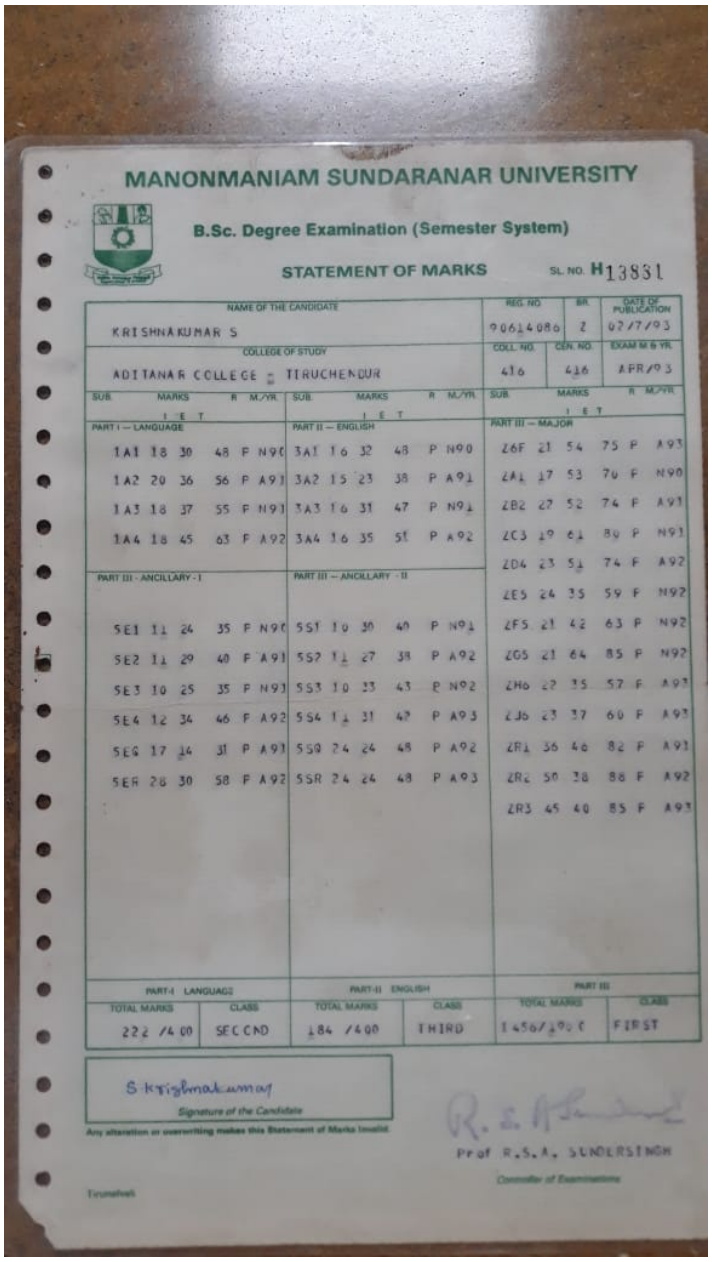
CENTRE 416

MANONMANIAM SUNDARANAR Cert.

R. S. A. Sundersingh

Prof R.S.A. SUNDERSINGH

Controller of Examinations



MANONMANIAM SUNDARANAR UNIVERSITY

B.Sc. Degree Examination (Semester System)

STATEMENT OF MARKS

SL. NO. H13831

NAME OF THE CANDIDATE	REG. NO.	BR.	DATE OF PUBLICATION
KRISHNAKUMAR S	9061408 6	2	07/7/93
COLLEGE OF STUDY	**COLL. NO.**	**CEN. NO.**	**EXAM M & YR.**
ADITANAR COLLEGE :: TIRUCHENDUR	416	416	APR/93

PART I — LANGUAGE

SUB.	MARKS I	MARKS E	MARKS T	R	M./YR.
1A1	18	30	48	P	N90
1A2	20	36	56	P	A91
1A3	18	37	55	P	N91
1A4	18	45	63	P	A92

PART II — ENGLISH

SUB.	MARKS I	MARKS E	MARKS T	R	M./YR.
2A1	16	32	48	P	N90
2A2	15	23	38	P	A91½
2A3	16	31	47	P	N91½
2A4	16	35	51	P	A92

PART III — MAJOR

SUB.	MARKS I	MARKS E	MARKS T	R	M./YR.
2B1	21	54	75	P	A93
2B2	17	53	70	P	N90
2B3	27	52	74	P	A91
2B4	19	61	80	P	N91
2B5	23	51	74	P	A92
2B6	24	35	59	P	N92
2B7	21	42	63	P	N92
2B8	21	64	85	P	N92
2B9	22	35	57	P	A93
2B10	23	37	60	P	A93
2B11	36	46	82	P	A93
2B12	30	38	88	P	A92
2B13	45	40	85	P	A93

PART III - ANCILLARY - I

SUB.	MARKS I	MARKS E	MARKS T	R	M./YR.
5E1	11	24	35	P	N90
5E2	11	29	40	P	A91
5E3	10	25	35	P	N91
5E4	12	34	46	P	A92
5E5	17	14	31	P	A91
5E6	20	30	50	P	A92

PART III — ANCILLARY - II

SUB.	MARKS I	MARKS E	MARKS T	R	M./YR.
5S1	10	30	40	P	N91
5S2	11	27	38	P	A92
5S3	10	33	43	P	N92
5S4	11	31	42	P	A93
5S5	24	24	48	P	A92
5S6	24	24	48	P	A93

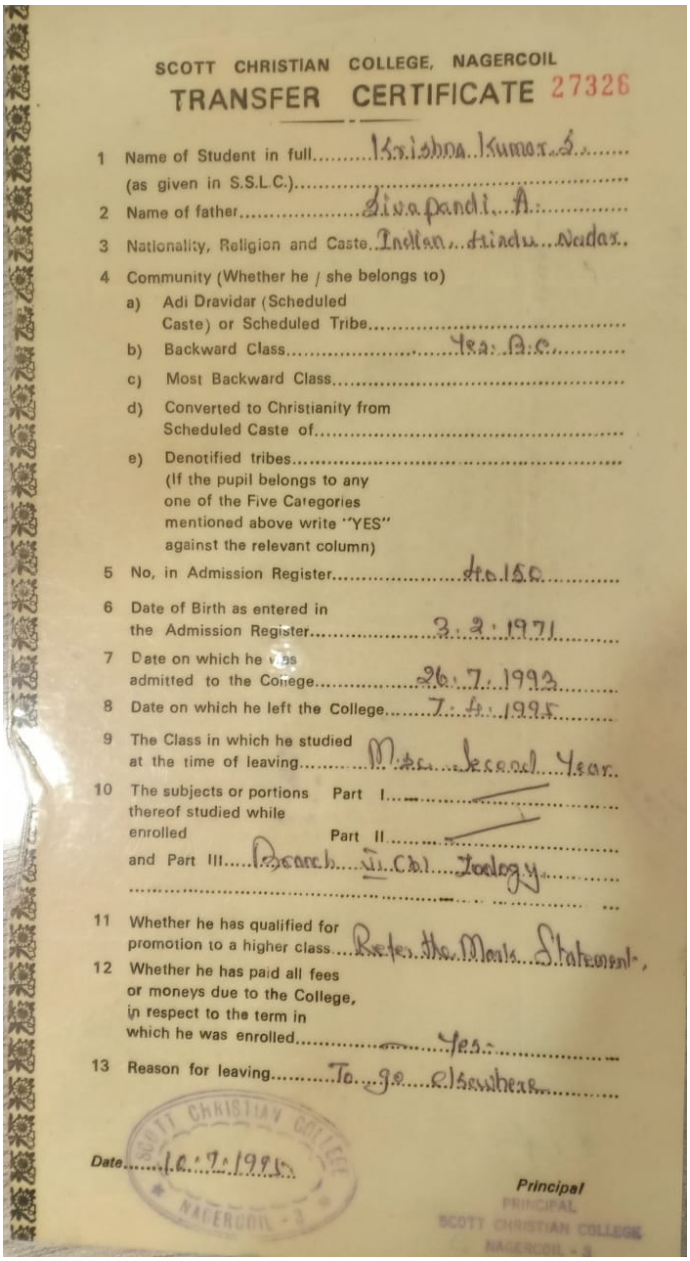
PART-I LANGUAGE		PART-II ENGLISH		PART III	
TOTAL MARKS	CLASS	TOTAL MARKS	CLASS	TOTAL MARKS	CLASS
222 /400	SECOND	184 /400	THIRD	1456/1900	FIRST

S Krishnakumar
Signature of the Candidate

Any alteration or overwriting makes this Statement of Marks invalid.

Prof R.S.A. SUNDERSINGH
Controller of Examinations

Tirunelveli



SCOTT CHRISTIAN COLLEGE, NAGERCOIL

TRANSFER CERTIFICATE 27326

1 Name of Student in full.....Krishna Kumar. S.....
(as given in S.S.L.C.).....

2 Name of father.....Sivapandi. A.....

3 Nationality, Religion and Caste. Indian. Hindu. Nadar.

4 Community (Whether he / she belongs to)
a) Adi Dravidar (Scheduled Caste) or Scheduled Tribe.....
b) Backward Class.....Yes. B.C.....
c) Most Backward Class.....
d) Converted to Christianity from Scheduled Caste of.....
e) Denotified tribes.....
(If the pupil belongs to any one of the Five Categories mentioned above write "YES" against the relevant column)

5 No. in Admission Register.....dt.150.....

6 Date of Birth as entered in the Admission Register.....3.2.1971.....

7 Date on which he was admitted to the College.....26.7.1993.....

8 Date on which he left the College.....7.4.1995.....

9 The Class in which he studied at the time of leaving.....M.Sc. Second Year.

10 The subjects or portions thereof studied while enrolled
Part I.....—.....
Part II.....—.....
and Part III.....Research in Chemistry.....
.....

11 Whether he has qualified for promotion to a higher class.....Refer the Marks Statement.

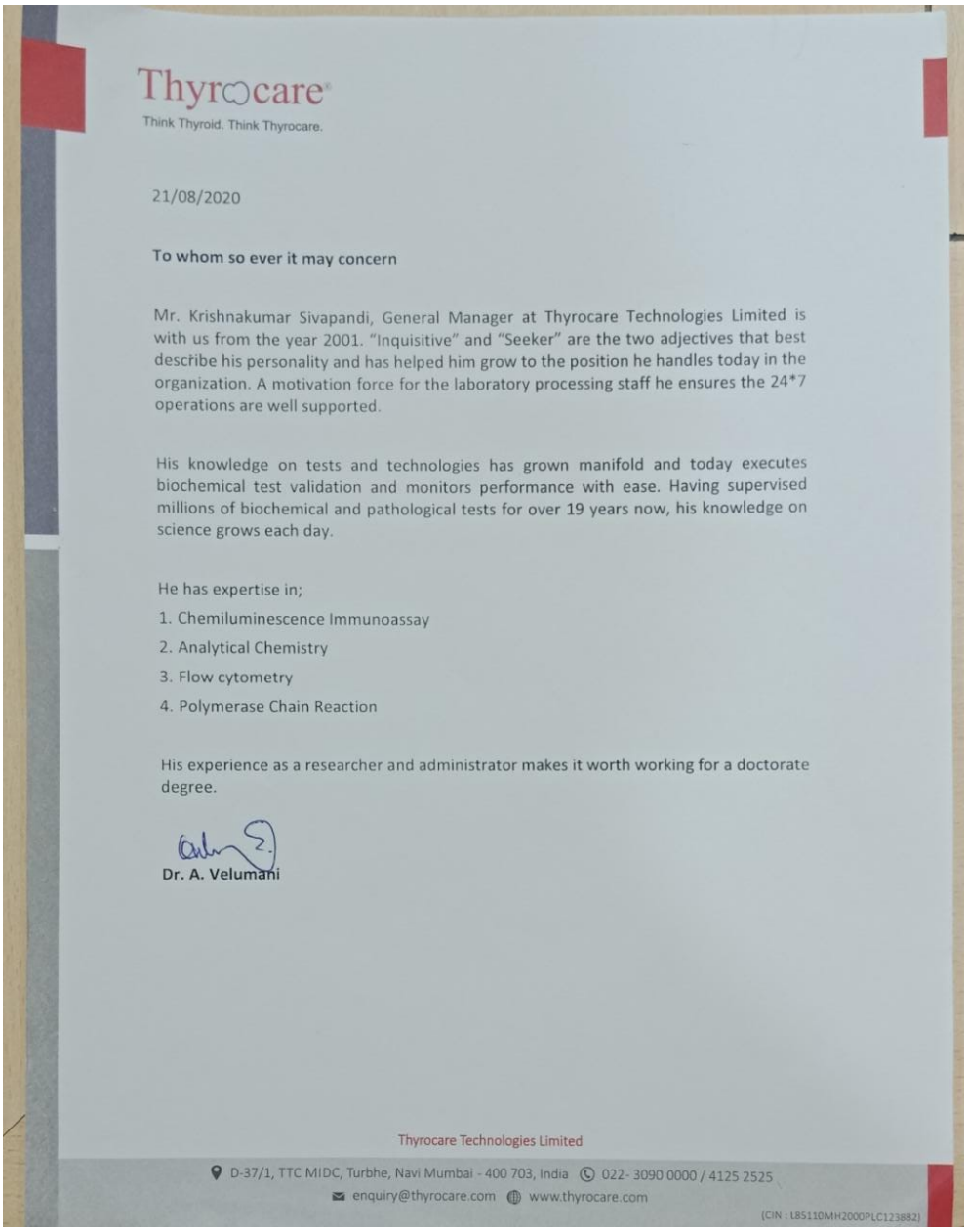
12 Whether he has paid all fees or moneys due to the College, in respect to the term in which he was enrolled.....Yes.....

13 Reason for leaving.....To go elsewhere.....

Date.....10.7.1995.....

SCOTT CHRISTIAN COLLEGE NAGERCOIL - 3

Principal
PRINCIPAL
SCOTT CHRISTIAN COLLEGE
NAGERCOIL - 3



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21/08/2020

To whom so ever it may concern

Mr. Krishnakumar Sivapandi, General Manager at Thyrocare Technologies Limited is with us from the year 2001. "Inquisitive" and "Seeker" are the two adjectives that best describe his personality and has helped him grow to the position he handles today in the organization. A motivation force for the laboratory processing staff he ensures the 24*7 operations are well supported.

His knowledge on tests and technologies has grown manifold and today executes biochemical test validation and monitors performance with ease. Having supervised millions of biochemical and pathological tests for over 19 years now, his knowledge on science grows each day.

He has expertise in;

1. Chemiluminescence Immunoassay
2. Analytical Chemistry
3. Flow cytometry
4. Polymerase Chain Reaction

His experience as a researcher and administrator makes it worth working for a doctorate degree.

Dr. A. Velumani

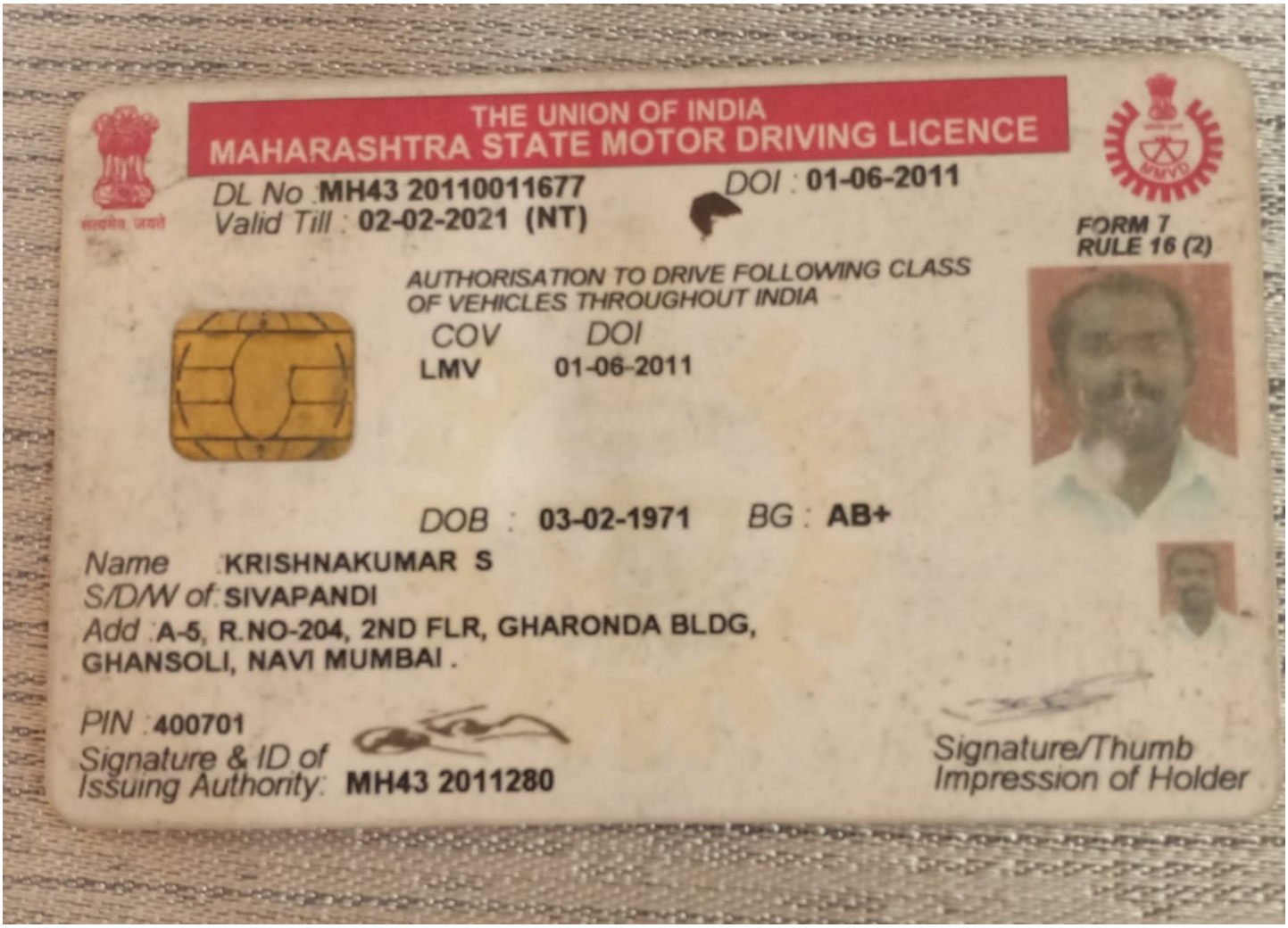
Thyrocare Technologies Limited

D-37/1, TTC MIDC, Turbhe, Navi Mumbai - 400 703, India 022- 3090 0000 / 4125 2525

enquiry@thyrocare.com www.thyrocare.com

(CIN : L85110MH2000PLC123882)


आयकर विभाग
INCOME TAX DEPARTMENT
सत्यमेव जयते
भारत सरकार
GOVT. OF INDIA
KRISHNAKUMAR SIVAPANDI
SIVAPANDI
03/02/1971
Permanent Account Number
BCYPK4769F
Signature
13072011


THE UNION OF INDIA
MAHARASHTRA STATE MOTOR DRIVING LICENCE
DL No :MH43 20110011677
Valid Till : 02-02-2021 (NT)
DOI : 01-06-2011
FORM 7
RULE 16 (2)
AUTHORISATION TO DRIVE FOLLOWING CLASS OF VEHICLES THROUGHOUT INDIA
COV
DOI
LMV
01-06-2011
DOB : 03-02-1971
BG : AB+
Name :KRISHNAKUMAR S
S/D/W of :SIVAPANDI
Add :A-5, R.NO-204, 2ND FLR, GHARONDA BLDG, GHANSOLI, NAVI MUMBAI .
PIN :400701
Signature & ID of Issuing Authority: MH43 2011280
Signature/Thumb Impression of Holder

*CERTIFICATE No. 2187435

DISTRICT CODE 18

TALUK CODE 09

VILLAGE CODE 029

COMMUNITY CERTIFICATE

This is to certify that S. KRISHNA KUMAR son/~~daughter~~ of Thiru A. Sivapandi Nadar of Pudayalpuram P.O. Vijayapalli village/~~town~~ Radhapuram taluk Tirunelveli Kattabomman district of the State of Tamil Nadu belongs to Hindu Nadar community, which is recognised as a ~~Most Backward Class/Denotified Community/~~ Backward Class/~~Scheduled Caste/Scheduled Tribe~~ as per G.O. Ms. No. 433 Dated 25.7.83/The S.C. and S.T. Orders (Amendment) Act, 1976, *vide* Sl. No. 118.

2. It is certified that ~~and~~ his/her family ordinarily reside(s) at village/town taluk district of the State of Tamil Nadu.

Signature :

Date : 8.9.93

Seal :

Name in capital letters :

Designation : Head Quarters Deputy Tahsildar
RADHAPURAM.

* This Certificate Number is to be filled in the Application Forms.

NOTE.—Competent Authorities for issue of Certificate : For SC/STs, except Konda Reddis, Taluk Tahsildars; for Konda Reddis, R.D.O.'s; for B.Cs. and O.Cs., Head Quarter's Deputy Tahsildars/Special Deputy Tahsildars.

ANNEXURE-I

CERTIFICATE FROM THE ORGANISATION WHERE THE CANDIDATE IS EMPLOYED

Certified that Mr./~~Ms./Mrs.~~ KRISHNAKUMAR is employed as GENERAL MANAGER (Designation) in the LABORATORY (Department/Division Name) of THYROCARE TECHNOLOGIES LTD (Institution/Industry Name).

We have no objection in forwarding his/her application for the Ph.D. Research Programme.

FOR FULL TIME:

The candidate will be sanctioned leave for the duration of the research programme and will be relieved from duty from _____ to _____ to undertake the full time research work in the University.

✓ FOR PART TIME:

The candidate will be permitted to undertake part time study in the University/College and will be allowed to be present for discussions with the supervisor, attending course works, conduct of experiments and participations in seminars and related presentations. Further the required facilities at our organization will also be provided to the candidate for doing research.

Thyrocare Technologies Limited

Date: 23.12.2020

Signature of the Head of Organization with office seal