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:16-06-2020

Department	ELECTRONICS AND COMMUNICATION ENGINEERING	Application No.	20200088
Area of Research	BIO-MEDICAL IMAGE PROCESSING	Research Mode	PART TIME

Name :NISHA A V

Date of Birth / Age :24-04-1984 / 36 Years

Gender :FEMALE

Category :OBC

e-Mail ID :mail2nishaav@gmail.com

Mobile :09349963888

Father's/Husband's Name	R.VIDHYADHARAN	Father's/Husband's Occupation	RETIRED GOVT EMPLOYEE
Family Income	400000	Residental Type	RURAL
Birth Place	TRIVANDRUM	Mother Tongue	MALAYALAM
Religion	HINDU	Martial Status	DIVORCED
Aadhaar No.	477816957910	PAN No.	AVBPA7438E
Physically Challenged	NO	Type of Disability	-

Address for Communication:	Permenant Address:
NAVANEETHAM,KONNAYILMUKK PULLICHIRA P.O KOLLAM KOLLAM DISTRICT KERALA INDIA Pin-691304	NAVANEETHAM,KONNAYILMUKK PULLICHIRA P.O KOLLAM KOLLAM DISTRICT KERALA INDIA Pin-691304

Qualification

Degree	Discipline	College/university	Year Passed	AVG/CGPA	Class	Mode
B.E	ELECTRONICS AND COMMUNICATION ENGINEERING	ANNA UNIVERSITY,CHENNAI	2005	75	FIRST CLASS WITH DISTINCTION	REGULAR
M.E	APPLIED ELECTRONICS	ANNA UNIVERSITY,CHENNAI	2013	8.06	FIRST	REGULAR

Experience

Organization	Designation	Experience From	Experience TO	Work Nature
YOUNUS COLLEGE OF ENGINEERING AND TECHNOLOGY, KOLLAM	ASSOCIATE PROFESSOR	2006-01-16	2020-06-16	TEACHING

Payment Details

Transaction ID	Reference	Date of transaction	Amount	Status

20200088_200624223550	SHMP8929563121	24-06-2020	600	SUCCESS

RESEARCH PROPOSAL

Cancer is one of the most dangerous disease in human life. It can cause death over the world because of late diagnosis. Lung cancer, also known as lung carcinoma, is a malignant lung tumor characterized by uncontrolled cell growth in tissues of the lung. Lung cancer occurs as a result of uncontrolled proliferation of tissues and cells in the lungs. When these masses grow up uncontrolled in its environment it can spread damage the surrounding tissues. This growth can spread beyond the lung by the process of metastasis into nearby tissue or other parts of the body. Approximately 1.3 million people die every year in the world due to lung cancer. Lung cancer is the leading cause of cancer death among both men and women, making up almost 25% of all cancer deaths. Each year, more people die of lung cancer than of colon, breast, and prostate cancers combined. Most cancers that start in the lung, known as primary lung cancers, are carcinomas. The two main types are small-cell lung carcinoma (SCLC) and non-small cell lung carcinoma (NSCLC). The most common symptoms are coughing (including coughing up blood), weight loss, shortness of breath, and chest pains.

The vast majority (85%) of cases of lung cancer are due to long-term tobacco smoking. About 10–15% of cases occur in people who have never smoked. These cases are often caused by a combination of genetic factors and exposure to radon gas, asbestos, second-hand smoke, or other forms of air pollution. Lung cancer mainly occurs in older people, most people diagnosed with lung cancer are 65 or older. A very small number of people diagnosed are younger than 45. The average age of people when diagnosed is about 70. Overall, the chance that a man will develop lung cancer in his lifetime is about 1 in 15. For a woman, the risk is about 1 in 17. These numbers include both smokers and non-smokers. For smokers the risk is much higher, while for non-smokers the risk is lower. Black men are about 15% more likely to develop lung cancer than white men. The rate is about 14% lower in black women than in white women. Both black and white women have lower rates than men, but the gap is closing. The lung cancer rate has been dropping among men over the past few decades, but only for about the last

decade in women. Despite their overall risk of lung cancer being higher, black men are less likely to develop SCLC than are white men.

The American Cancer Society's estimates for lung cancer in the United States for 2020 are about 228,820 new cases of lung cancer (116,300 in men and 112,520 in women) and about 135,720 deaths from lung cancer (72,500 in men and 63,220 in women). On a positive note, the number of new lung cancer cases continues to decrease, partly because people are quitting smoking. Also, the number of deaths from lung cancer continues to drop due to people stopping smoking and advances in early detection and treatment. The death rate from cancer in the US declined by 29% from 1991 to 2017, including a 2.2% drop from 2016 to 2017, the largest single-year drop ever recorded, according to annual statistics reporting from the American Cancer Society. The decline in deaths from lung cancer drove the record drop. Deaths fell from about 3% per year from 2008 - 2013 to 5% from 2013 - 2017 in men and from 2% to almost 4% in women.

A total of 1,806,590 new cancer cases and 606,520 deaths are expected in the US in 2020, which is about 4,950 new cases and more than 1,600 deaths each day. Symptoms of lung cancer may not lead to significant complaints until the disease is quite advanced. Progression of lung cancer without symptoms is the most important factor that makes this cancer so dangerous. Almost a quarter of patients have cancer without any symptoms.

Early diagnosis is very important in lung cancer. Because lung cancer often has the ability to rapidly spread to the bones, liver, brain and adrenal glands. However, with the newly developed lung cancer treatment methods, the average life expectancy and quality have increased.

Biomedical Image Processing is the latest emerging tool in medical research used for the early detection of cancers. Today, with advances in imaging techniques such as low-dose spiral computed tomography, Lung cancer can be detected at an early stage. Statistics on survival in people with lung cancer vary depending on the stage (extent) of the cancer when it is diagnosed. Lung cancer may be seen on chest radiographs and computed tomography (CT) scans. The diagnosis is confirmed by biopsy which is usually performed

by bronchoscopy or CT-guidance. The widely used methods based on a statistical parameter map (SPM) analysis. But there are many shortcomings of this approach when considering high-resolution data.

First, the often used Gaussian filtering results in a blurring effect and in delocalization of the activated area. Secondly, the SPM approach only considers false alarms due to noise but not rejection of activated voxels.

So proposed to embed the Functional Magnetic Resonance Imaging (fMRI) analysis problem in to a Bayesian framework consisting of two steps: i) data restoration and ii) data analysis. Deep Learning can be used for the classification of fMRI Scanned Images as cancerous/non-cancerous. The process of feature extraction in Convolution Neural Networks is such that features can be defined and computed.

In this research artificial Intelligence is proposed in the medical field to diagnose diseases at an early stage. Deep Learning is another branch of Artificial Intelligence research that will help in better performance in CNN based systems. Functional magnetic resonance images (fMRI's) provide high-resolution datasets which allow helps to obtain accurate delineation and sensitive detection of activation areas involved in cognitive processes.

Here MATLAB can be used for implementation of CNN and Deep Learning. The Deep Learning Toolbox available on MATLAB for Deep Learning and CNN can be used to analyze, predict the lung cancer with more accuracy.

NISHA A.V
Associate Professor,
YCET, Kollam

Anna University

The Syndicate of the Anna University hereby makes known that **NISHA A V** *has been admitted to the* **DEGREE OF BACHELOR OF ENGINEERING** *in* **Electronics and Communication Engineering** *having satisfactorily completed the prescribed programme of study and having been certified by duly appointed examiners to be qualified to receive the same and having been placed by them in the* **First Class with Distinction** *at the Examination held in* **APRIL 2005.**
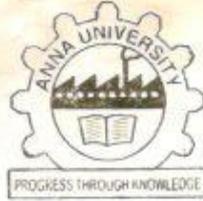
Given under the Seal of the University

Chennai 600 025
India
November 2005

Registrar

Vice-Chancellor

Anna University

PROGRESS THROUGH KNOWLEDGE

Reg.No. 951011401011/RG

The Syndicate of the Anna University hereby makes known that **NISHA A V** has been admitted to the **DEGREE OF MASTER OF ENGINEERING** in **APPLIED ELECTRONICS** under the *Faculty of Information and Communication Engineering*, having completed the prescribed programme of study and having been certified by the duly appointed examiners to be qualified to receive the same, and has been placed in **FIRST CLASS** at the Examination held in **JUNE 2013**.

Given under the Seal of the University

Chennai 600 025
India

November 2013

*Controller of Examinations*

Registrar

Vice-Chancellor

NAME OF THE CANDIDATE	NISHA A V
COLLEGE OF STUDY	972: Sun College of Engineering and Technology
PROGRAMME & BRANCH	B.E. Electronics and Communication Engineering

SEM.	SUBJECT CODE	SUBJECT TITLE	MAX	MIN	MARKS SECURED	MONTH & YEAR OF PASSING
01	111	English - Paper I	100	50	080	NOV 2001
01	112	Mathematics - Paper I	100	50	051	APR 2002
01	113	Applied Physics - Paper I	100	50	076	NOV 2001
01	114	Applied Chemistry - Paper I	100	50	075	NOV 2001
01	115	Basic Engineering - Paper I	100	50	063	NOV 2001
01	116	Basic Engineering - Paper II	100	50	072	NOV 2001
01	117	Engineering Drawing - Paper I	100	50	065	NOV 2001
02	211	English - Paper II	100	50	076	APR 2002
02	212	Mathematics - Paper II	100	50	080	APR 2002
02	213	Applied Physics - Paper II	100	50	058	APR 2002
02	214	Applied Chemistry - Paper II	100	50	066	APR 2002
02	215	Basic Engineering - Paper III	100	50	081	APR 2002
02	216	Basic Engineering - Paper IV	100	50	060	APR 2002
02	217	Engineering Drawing - Paper II	100	50	050	APR 2002
02	218	Physics and Chemistry Laboratory	100	50	094	APR 2002
02	219	Computer Laboratory	100	50	096	APR 2002
02	21A	Workshop Practice	100	50	091	APR 2002
03	EC231	Network Analysis and Synthesis	100	50	063	NOV 2002
03	EC232	Signals and Systems	100	50	075	NOV 2002
03	EC233	Electromagnetic Fields	100	50	057	NOV 2002
03	EC234	Electronic Circuits - I	100	50	062	NOV 2002
03	EE253	Electrical Engineering	100	50	055	NOV 2002
03	MA231	Mathematics - III	100	50	073	NOV 2002
03	EC236	Electronic Devices and Circuits Lab	100	50	079	NOV 2002
03	EE254	Electrical Engineering Lab	100	50	074	NOV 2002
04	EC241	Electronic Circuits II	100	50	075	APR 2003
04	EC242	Digital Electronics	100	50	076	APR 2003
04	EC243	Programming and Data Structures	100	50	058	APR 2003
04	EC244	Linear Integrated Circuits	100	50	069	APR 2003
04	EC245	Measurements and Instrumentation	100	50	069	APR 2003
04	MA034	Random Processes	100	50	061	NOV 2003
04	EC246	Computer Programming Lab	100	50	092	APR 2003
04	EC247	Electronic Circuit Design Lab	100	50	095	APR 2003
05	EC331	Microprocessor and Applications	100	50	074	NOV 2003
05	EC332	Communication Theory and Systems	100	50	060	NOV 2003
05	EC333	Digital Signal Processing	100	50	068	NOV 2003

Medium of Instruction : ENGLISH

Chennai - 600 025.

REGISTER NO.	97201106035
MONTH & YEAR OF LAST APPEARANCE	Apr 2005
REGULATIONS	2001

SEM.	SUBJECT CODE	SUBJECT TITLE	MAX	MIN	MARKS SECURED	MONTH & YEAR OF PASSING
05	EC334	Control Systems	100	50	067	NOV 2003
05	EC335	Transmission Lines and Networks	100	50	076	NOV 2003
05	EC336	Computer Architecture	100	50	067	NOV 2003
05	EC337	Digital System Design and Signal Processing Lab	100	50	097	NOV 2003
05	EC338	Microprocessor and Control Lab	100	50	093	NOV 2003
06	EC341	Digital Communication	100	50	061	APR 2004
06	EC342	EM Waves and Wave Guides	100	50	064	APR 2004
06	EC343	Computer Communication Networks	100	50	063	APR 2004
06	EC345	Television and Video Engineering	100	50	055	APR 2004
06	MG325	Engineering Economics and Financial Accounting	100	50	055	APR 2004
06	EC035	Computer Hardware and Interfacing	100	50	053	APR 2004
06	EC346	Communication System Lab	100	50	094	APR 2004
06	EC435	Electronic System Design Lab	100	50	092	APR 2004
07	CE071	Principles of Environmental Science and Engineering	100	50	066	NOV 2004
07	EC431	Antennas and Propagation	100	50	078	NOV 2004
07	EC432	Microwave Engineering	100	50	081	NOV 2004
07	EC433	Optical Communication	100	50	071	NOV 2004
07	GE035	Professional Ethics	100	50	080	NOV 2004
07	MG331	Principles of Management	100	50	078	NOV 2004
07	EC434	Microwave and Optical Communication Lab	100	50	093	NOV 2004
07	EC439	Comprehension	100	50	095	NOV 2004
07	EC440	RF Lab	100	50	097	NOV 2004
08	GE406	Total Quality Management	100	50	083	APR 2005
08	EC047	Cellular Mobile Communication	100	50	067	APR 2005
08	EC444	Project Work	200	100	192	APR 2005

End of Statement

Classification : **FIRST CLASS WITH DISTINCTION**

Total Marks (from 3rd to 8th semester) : 3353 / 4500

Percentage (rounded to nearest integer) : 75
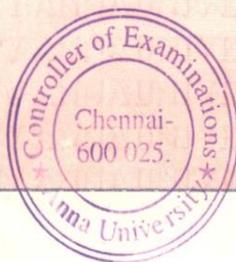
ANNA UNIVERSITY, CHENNAI - 25

M.E. DEGREE EXAMINATIONS
CONSOLIDATED STATEMENT OF GRADES

N112039779911V   **Folio No.** AUCD330284

NAME OF THE CANDIDATE	NISHA A V				REGISTER NO.		951011401011
DATE OF BIRTH	24-APR-84	GENDER	FEMALE	MONTH & YEAR OF LAST APPEARANCE		JUN 2013	
COLLEGE OF STUDY	INFANT JESUS COLLEGE OF ENGINEERING			REGULATIONS		2009	
PROGRAMME & SPECIALIZATION	M.E. Applied Electronics						

SEM. NO.	COURSE CODE	COURSE TITLE	CREDITS	LETTER GRADE	GRADE POINT	MONTH & YEAR OF PASSING
01	AP9211	Advanced Digital Signal Processing	3	B	8	JAN 2012
01	AP9212	Advanced Digital System Design	3	C	7	JAN 2012
01	AP9213	Advanced Microprocessors and Microcontrollers	3	B	8	JAN 2012
01	MA9217	Applied Mathematics for Electronics Engineers	4	D	6	JAN 2012
01	VL9212	VLSI Design Techniques	3	C	7	JAN 2012
01	AP9251	Digital Image Processing	3	C	7	JAN 2012
01	AP9217	Electronics Design Laboratory I	2	A	9	JAN 2012
02	AP9221	Analysis and Design of Analog Integrated Circuits	3	B	8	NOV 2012
02	AP9222	Computer Architecture and Parallel Processing	3	B	8	NOV 2012
02	AP9223	Digital Control Engineering	3	B	8	NOV 2012
02	AP9224	Embedded Systems	3	A	9	NOV 2012
02	CP9212	High Performance Computer Networks	3	B	8	NOV 2012
02	VL9252	Low Power VLSI Design	3	B	8	NOV 2012
02	AP9227	Electronics Design Laboratory II	2	S	10	NOV 2012
03	AP9258	RF System Design	3	C	7	NOV 2012
03	VL9221	CAD for VLSI Circuits	3	C	7	NOV 2012
03	VL9261	ASIC Design	3	B	8	NOV 2012
03	AP9234	Project Work (Phase I)	6	C	7	NOV 2012
04	AP9241	Project Work (Phase II)	12	S	10	JUN 2013

* * * End of Statement * * *

Cumulative Grade Point Average : 8.06

Classification : FIRST CLASS

PROGRESS THROUGH KNOWLEDGE
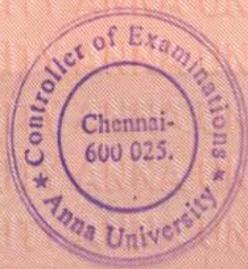
Medium of Instruction : **ENGLISH**

Chennai - 25.

Date 19/08/2013   SIGNATURE OF THE STUDENT   CONTROLLER OF EXAMINATIONS

No. IJCE / TC / 2017 / 445

INFANT JESUS
COLLEGE OF ENGINEERING

[COLLEGE RUN BY INFANT JESUS EDUCATIONAL TRUST, CHENNAI – 600 004]

◆A Christian Minority ISO 9001:2008 Certified Institution ◆College Approved by AICTE, New Delhi ◆ Affiliated to Anna University

TIRUNELVELI - THOOTHUKUDI HIGHWAY [NH-7A], KAMARAJAR NAGAR, KEELAVALLANADU,
ELLANAYAKKANPATTI POST, SRIVAIKUNDAM TALUK, THOOTHUKUDI DISTRICT - 628 851, TAMIL NADU, INDIA.

TRANSFER CERTIFICATE

1.	Name of the Pupil	:	**NISHA A V**
2.	Name of the Father	:	**MR. VIDHYADHARAN R**
3.	Date of Birth	:	24.04.1984
4.	Community, Caste & Religion	:	BC, EZHAVA & HINDU
5.	Nationality	:	INDIAN
6.	Date of Joining the College	:	01.08.2011
7.	Course Details		
	University Registration Number	:	951011401011
	Degree	:	PG [M.E.]
	Branch / Specialization	:	APPLIED ELECTRONICS
	Batch	:	2011 - 2013
8.	Medium of Instruction	:	ENGLISH
9.	Whether qualified for promotion to a higher class	:	REFER THE MARK SHEET
10.	Was there any break during the studies	:	NO
	If yes, specify the period	:	NOT APPLICABLE
11.	Date on which the Application for Transfer Certificate was made	:	01.09.2017
12.	Date of leaving the college	:	01.05.2013
13.	Reason for leaving the college	:	COURSE COMPLETED
14.	Whether all dues in the college have been paid	:	PAID
15.	Semester which the student completed at the time of leaving the College	:	IV SEMESTER COMPLETED
16.	Character and conduct during the course of study	:	GOOD

KAMARAJAR NAGAR
01 .09.2017
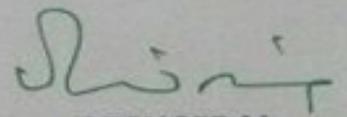
PRINCIPAL
Infant Jesus College of Engineerin
Kamarajar Nagar, Keelavallanadu
Tuticorin Dist - 628 851.

NO. 10/Estt/YCET/ 2020   23RD JUNE, 2020.

EXPERIENCE CERTIFICATE

This is to certify that **Ms. Nisha A V** residing at **Navaneetham, Thekkumkara, Pullichira P.O, Mayyanad, Kollam - 691304,** has been working in this college from **16.01.2006** onwards. She is currently working as **Associate Professor** in the Dept. of Electronics & Communication Engineering.

She is efficient, honest, sincere and hardworking.

Her conduct and character are excellent.

This certificate is issued on her request.

25/6/2020

Dr. P. SREERAJ
PRINCIPAL
Younus College of Engineering
& Technology
Kollam- 691 010

आयकर विभाग
INCOME TAX DEPARTMENT

भारत सरकार
GOVT. OF INDIA

NISHA AV

VIDYADHARAN

RAMAKRISHNAPANICKER

24/04/1984

Permanent Account Number

AVBPA7438E

Nisha (signature)

Signature

INDIAN UNION
KERALA STATE
DRIVING LICENCE FORM 7

No.: **2/1435/2008**   Date: **22/02/2008**

Name   : NISHA.AV
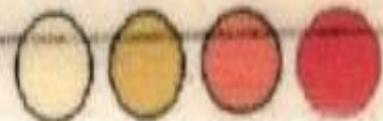S/W/D of   : VINU RAJ R
Address   : SAROJALAYAM
            PUNTHALATHAZHAM
            KOLLQM

Date of Birth : 24/04/1984
Blood Group   :

Category	Valid from	Valid To
Non-Transport	22/02/2008	21/02/2028
Transport		

MOTOR VEHICLE DEPARTMENT KERALA STATE

She is licensed to drive throughout India, vehicle of the following description

Class of Vehicle	With effect from	Testing Authority
LMV	22/02/2008	LA,KLM

Date of First Issue : 22/02/2008

Badge No. & Date :
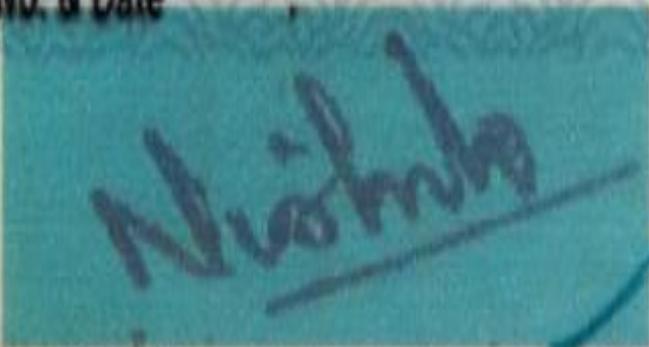
Signature of Holder

Mohanan, S
Asst LA,KOLLAM

NIC A 1781808

No: 1778/17

ANNEXURE II

CERTIFICATE TO BE PRODUCED BY OTHER BACKWARD CLASSES APPLYING FOR APPOINTMENT TO POSTS UNDER THE GOVERNMENT OF KERALA AND ITS ORGANISATION AND INSTITUTIONS

This is to certify that Sri./Smt. ...... NISHA A. V. ....
S/o, D/o R. : VIDHYADHARAN., NAVANEETHAM., PULLICHIRA P.O Village **Mayyanad, Kollam** District in the State of Kerala belongs to.. HINDU- EZHAVA Community, which is designated as a backward class in the State of Kerala.

2.   This is also certify that the above Sri/Smt. ... NISHA. A. V. ....
does not belong to the category of **"Creamy Layer"** in the light of the guidelines issued in G.O.(P) No. 81/2009/SC/ST DD dated 26/09/2009 and the scheduled prescribed thereunder to identify the **"Creamy Layer"** among the designated **"Other Backward Classes"** in the State of Kerala.

This certificate is issued to produce before the authorities of KPSC.

VILLAGE OFFICER
MAYYANAD

DONAL LAS
Village Officer
Mayyanad

ANNEXURE-I

CERTIFICATE FROM THE ORGANISATION WHERE THE CANDIDATE IS EMPLOYED

Certified that Mr./Ms./Mrs. _Nisha. A. V_ is employed as _Associate Professor_ (Designation) in the _Electronics And Communication Engineering_ (Department/Division Name) of _Younus College Of Engineering And Technology, Kollam_ (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.

Date: 22. 6. 2020

Signature of the Head of Organization with office seal

PRINCIPAL
Younus College of Engineering
Technology
Kollam - 691 010