



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

APPLICATION FOR ADMISSION TO Ph.D. PROGRAMMES

Date of Application:21-12-2020

| | | | |
|------------------|---------------------------------------|-----------------|-----------|
| Department | COMPUTER APPLICATIONS | Application No. | 202020149 |
| Area of Research | MEDICAL IMAGE ANALYSIS USING DEEP CNN | Research Mode | PART TIME |

Name :NEELIMA P

Date of Birth / Age :12-05-1979 / 41 Years

Gender :FEMALE

Category :OBC

e-Mail ID :neelimanoshi1979@gmail.com

Mobile :9895804753



Neelima P

| | | | |
|---|--------------|---|------------------|
| Father's/Husband's Name | JOSHI V | Father's/Husband's Occupation | GRAPHIC DESIGNER |
| Family Income | 3 LAKHS | Residential Type | RURAL |
| Birth Place | NJEKKAD | Mother Tongue | MALAYALAM |
| Religion | HINDU | Martial Status | MARRIED |
| Aadhaar No. | 251465970994 | PAN No. | AENPN7512H |
| Physically Challenged | NO | Type of Disability | - |
| Address for Communication: N P COTTAGE VADASSERIKONAM(POST) NJEKKAD,VARKALA TRIVANDRUM DISTRICT KERALA INDIA Pin-695143 | | Permenant Address: N P COTTAGE VADASSERIKONAM(POST) NJEKKAD,VARKALA TRIVANDRUM DISTRICT KERALA INDIA Pin-695143 | |

| Qualification | | | | | | |
|---------------|----------------------|-----------------------------------|-------------|----------|--------------------------|----------|
| Degree | Discipline | College/university | Year Passed | AVG/CGPA | Class | Mode |
| MPHIL | COMPUTER SCIENCE | BHARATHIAR UNIVERSITY, COIMBATORE | 2009 | 53.67 | SECOND | DISTANCE |
| MCA | COMPUTER APPLICATION | UNIVERSITY OF CALICUT | 2003 | 78.89 | FIRST CLASS WITH HONOURS | REGULAR |
| BSC | MATHEMATICS | UNIVERSITY OF KERALA | 1999 | 90 | FIRST CLASS | REGULAR |

| Experience | | | | |
|-------------------------------------|-------------|-----------------|---------------|-------------|
| Organization | Designation | Experience From | Experience TO | Work Nature |
| NIRMALA COLLEGE,MUVATTUPUZHA,KERALA | LECTURER | 2004-12-01 | 2007-06-17 | LECTURER |

| | | | | |
|---|---------------------|------------|------------|---------------------|
| SREE NARAYANA INSTITUTE OF TECHNOLOGY,KOLLAM,KERALA | ASSISTANT PROFESSOR | 2007-06-18 | 2020-12-21 | ASSISTANT PROFESSOR |
|---|---------------------|------------|------------|---------------------|

| Payment Details | | | | |
|------------------------|----------------|---------------------|--------|---------|
| Transaction ID | Reference | Date of transaction | Amount | Status |
| 202020149_201221122652 | VPMP9579681890 | 21-12-2020 | 600 | SUCCESS |

Computer-aided detection(CAD) of abnormalities in medical images has clinical significance but remains a challenging area because of low contrast and high noise levels in medical images. Unlike object detection in natural images, the detection of medical abnormalities is unique because they often locate in tiny local regions within a high-resolution medical image. Traditional machine learning approaches build sliding window-based detectors with manual features and are therefore limited on both efficiency and accuracy. Recent advances in deep learning shed new light on this problem, but applying it to medical image analysis faces challenges including insufficient data.

Breast cancer is one of the most common cancers in women. Typically, the course of the disease is asymptomatic in the early stages of breast cancer. The Indian Council for Medical Research published a statistical report which stated that the early detection of breast tumor will considerably decrease the mortality rates. The diagnosis of breast cancer can be done using imaging tests and biopsy. Mammography (MM) is considered as the most commonly used standard breast tumor image screening technique. In mammography screening, common abnormalities include micro-calcification (MC) and mass, which are usually found in tiny local regions within a high-resolution medical image. Most CAD approaches for calcification detection follow a common procedure: image enhancement, segmentation or extraction of region of interests (ROIs), feature computation and classification. For mass detection, algorithms first identify suspicious regions in a mammogram and then classify it as mass or normal tissues. Micro-calcifications are tiny deposits of calcium that appear as bright spots in mammograms. Filter banks were used to decompose mammogram images, followed by ROI selection and Bayesian classifications ,for detecting MCs in mammograms. They used a classical neural network to find candidate calcification regions, cleaned network output to remove thin elongated structures and used a measure of local density for final classification. A mass in mammogram is defined as a space-occupying lesion seen in more than one projection.

The general procedure for detecting mass is first to detect suspicious regions, then extract shape and texture features, and finally detect mass regions through classification or removing false positive regions. It is very necessary that huge number of mammographic images have to be processed and it probably demands the usage of image compression methods. Image compression has become an inevitable tool along with the advancing medical data acquisition and telemedicine systems.

Training deep convolutional neural networks (CNNs) directly on high-resolution images uses image compression at the input layer, which leads to the loss of information that is essential for medical abnormality detection. Therefore, instead of training on full images, the proposed approach first fine-tunes the pre-trained deep CNNs on image patches centered at medical abnormalities and then integrates them with class activation mappings and region proposal networks for building abnormality detectors.

The aim is to develop an automated approach for the diagnosis of breast cancer tumors in early stage using deep CNNs on image patches centered at medical abnormalities and then integrates them with class activation mappings and region proposal networks for building abnormality detectors.

Mrs.Neelima P,

Asst.Professor,

Sree Narayana Institute of Technology,

Kollam,

Kerala

MPhil Computer Science-Degree Certificate

Reg. No: 06RCS1508


பாரதியார் பல்கலைக் கழகம்
Bharathiar University
அறிவியல் புலம்
FACULTY OF SCIENCE

பாரதியார் பல்கலைக் கழகத்தால் முறையாக அமைக்கப்பட்ட தேர்வாளர் குழு
நீலீமா பி, பிப்ரவரி 2009-ஆம் ஆண்டில் கணிப்பான் அறிவியல் என்னும்
பிரிவில் ஆய்வியல் நிறைஞர் என்னும் பட்டம் பெறத் தகுதியடைந்திருப்பதாகச் சான்றளித்ததை
ஏற்று, அவருக்கு அந்தப் பட்டத்தைப் பல்கலைக் கழக இலச்சிணையுடன்,
பாரதியார் பல்கலைக் கழக ஆட்சிக் குழு வழங்குகின்றது.

The Syndicate of the Bharathiar University hereby makes known that **NEELIMA P**
has been admitted to the Degree of **MASTER OF PHILOSOPHY** in **COMPUTER SCIENCE**
having been certified by duly appointed Examiners to be qualified to receive the same in **FEBRUARY 2009**.

Given under the Seal of the University.

 கோயம்புத்தூர்
Coimbatore
6830043
நாள்

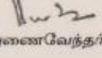
Dated: 24th November 2009

ISSUED ON 19 AUG 2010

C No 250400


K. G. Senthil Kumar
தேர்வாளர்
Controller of Examinations
Registrar


பதிவாளர்
Registrar


துணைவேந்தர்
Vice-Chancellor

MCA-Degree Certificate

2003—No. 085



FACULTY OF ENGINEERING

Whereas it has been certified by duly appointed Examiners that

Neelima P.

is qualified to receive the Degree of Master of Computer Applications (M. C. A.)

He/she having been placed in *First (Hons)* Class at the examination held in

October 2003 (Reg. No. *6283*)

The Senate of the University of Calicut hereby confers on him/her the Degree of

Master of Computer Applications

with all the Rights, Privileges and Honours thereunto appertaining.

Given under the seal of the University.



CALICUT UNIVERSITY
673 635

Date *12.08.2004*

Mumal
VICE-CHANCELLOR

BSc Mathematics-Degree Certificate

Reg. No. } II Year..130623/ April 1998.
& }
Year } III Year..130623/ April 1999.

198742



UNIVERSITY OF KERALA

കേരള സർവ്വകലാശാല

FACULTY OF SCIENCE

The Senate of the University of Kerala hereby makes known that
Neelima P. has been admitted to the Degree of
Bachelor of Science, ~~to~~/she having been certified by duly appointed examiners to be
qualified to receive the same; and having been by them placed after passing the prescribed
examinations, in the Third Class in Part I- English, in the Second Class in
Part II- Second Language (Hindi) and in the
First Class in Part III- Optional Subjects (Mathematics
Main Statistics and Physics
Subsidiaries) in April 1998, April 1998
and April 1999 respectively.

Given under the seal of the University.



University Buildings,
Thiruvananthapuram, January 23, 2000.

Wson
Vice-Chancellor

MPhil Computer Science-Degree Certificate

Reg. No: 06RCS1508


பாரதியார் பல்கலைக் கழகம்
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FACULTY OF SCIENCE

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has been admitted to the Degree of **MASTER OF PHILOSOPHY** in **COMPUTER SCIENCE**
having been certified by duly appointed Examiners to be qualified to receive the same in **FEBRUARY 2009**.

Given under the Seal of the University.

 கோயம்புத்தூர்
Coimbatore
435004
நாள்

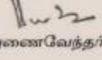
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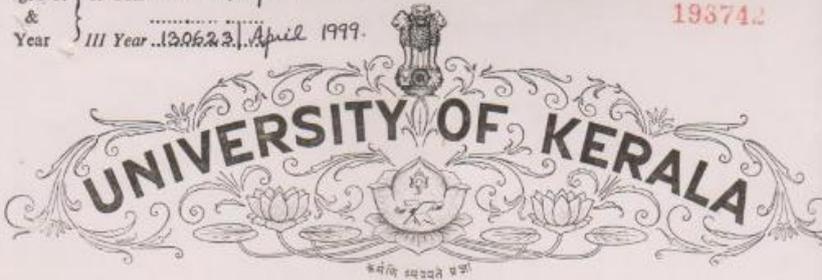
Date *12.08.2004*

Mumal
VICE-CHANCELLOR

BSc Mathematics-Degree Certificate

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University Buildings,
Thiruvananthapuram, January 23, 2000.

H. M. M.
Vice-Chancellor

GOVERNMENT OF KERALA

ENGINEERING

COLLEGE, TRICHUR

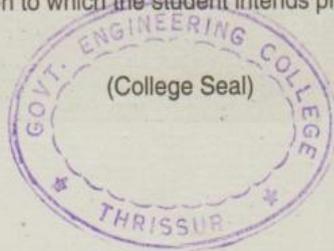


No. 327/03

Date 7-1-04

TRANSFER CERTIFICATE

1. Name of Student Neelima . P
2. Date of birth (in words and in figures) 12-5-1979 (Twelveth May Nineteen seventy nine)
3. Caste and religion Hindu, Ezhava
4. Admission No. 13/02-01
5. Date of admission 25-5-2000
6. Class to which admitted First year, M. E. A. Course
7. Date of leaving 20-10-2003
8. Class from which relieved Final year, M. E. A. Course
9. Whether qualified for Promotion to a higher class course completed
10. Whether all fees and other dues have been paid Yes
11. Whether the student was in receipt of fee concession No
12. Date of application for T.C. 7-1-2004
13. Reason for leaving course completed
14. Institucn to which the student intends proceeding



Shimachan
Principal
GOVT. ENGG. COLLEGE
THRISSUR - 0
7/1/04



SREE NARAYANA INSTITUTE OF TECHNOLOGY

Approved by All India Council for Technical Education, New Delhi & Affiliated to University of Kerala

VADAKKEVILA P.O., KOLLAM - 691 010

Tel : 0474 - 2723154, 2723156. Fax : 0474 -2723156

Website: www.snit.ac.in e-mail:snitech@gmail.com

Managed by Sree Narayana Educational Society, Kollam

Dr. T. Mahalekshmi
Principal

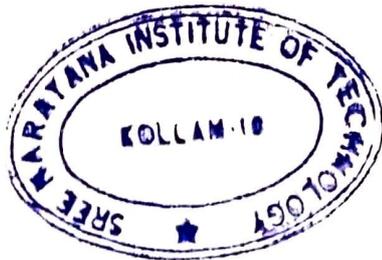
Ref No:SNES/SNIT/2020-2021\

Date: 17 - 12 - 2020

EXPERIENCE CERTIFICATE

This is to certify that Neelima P, N.P. Cottage, Vadasserikonam P.O., Varkala, Thiruvananthapuram joined in Sree Narayana Institute of Technology, Kollam as Lecturer in Computer Applications on 18/6/2007. She was redesignated as Assistant Professor with effect from 01/02/2012. She has put in a total service of 13 years 6 months in this institution. She is sincere and hardworking.

Principal
Principal
Sree Narayana
Institute of Technology
Vadakkevil . P O.
Kollam - 10



आयकर विभाग

INCOME TAX DEPARTMENT



भारत सरकार

GOVT. OF INDIA

NEELIMA P

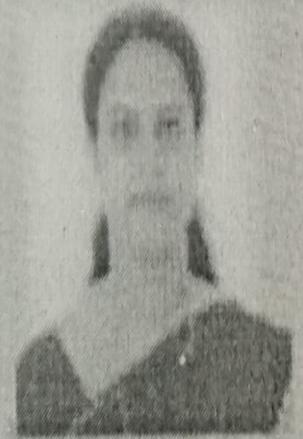
NARAYANAN PURUSHOTHAMAN

12/05/1979

Permanent Account Number

AENPN7512H

Signature



19042006

Self Attested

ഇന്ത്യൻ തിരഞ്ഞെടുപ്പ് കമ്മീഷൻ
ELECTION COMMISSION OF INDIA
 തിരഞ്ഞെടുപ്പ് കമ്മീഷൻ - ELECTOR PHOTO IDENTITY CARD

CKP1403427

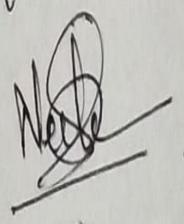


NAME Neelima P
FATHER'S NAME Purushothaman

ലിംഗം/SEX : സ്ത്രീ / Female
 ജനനത്തീയതി / വയസ്സ് :
DATE OF BIRTH/AGE : 12/05/1979 / 35
 മേൽവിലാസം : 1/399, എൻ പി കോട്ടേജ്,
 വെങ്കാട് വാടാസരികോണം പി ഒ 695143
ADDRESS : 1/399, N P Kottej,
 Njekkadu, Vadasserikonam P O 695143

ഇലക്ടറൽ റജിസ്ട്രേഷൻ ഔദ്യോഗിക
Date: 23/10/2015 **ELECTORAL REGISTRATION OFFICER**
 അസംബ്ലി നിയോജകമണ്ഡലം : 128, ആറ്റിങ്ങൽ
സംസ്ഥാന നമ്പരം
ASSEMBLY CONSTITUENCY No. : 128, ATTINGAL
& NAME
 പാർട്ടി നമ്പർ : 20
PART No.
NOTE / കുറിപ്പ്
 1. Mere possession of this card is no guarantee that you are elector in the current electoral roll. Please check your name in the current electoral roll before every election.
 1. ഈ കാർഡ് കൈവശമുള്ളത് കോൺ രാജം നിങ്ങൾ നിലവിലുള്ള വോട്ടർ പട്ടികയിൽ ഒരു സമ്മതിദായകൻ ആകണമെന്നല്ല വോട്ടർ തിരഞ്ഞെടുപ്പിനും മുമ്പായി നിലവിലുള്ള വോട്ടർ പട്ടികയിൽ നിങ്ങളുടെ പേര് ഉണ്ടാകാതെ പരിശോധിക്കേണ്ടതാണ്.
 2. Date of Birth mentioned in this card shall not be treated as a proof of age/D.O.B. for any purpose other than registration in electoral roll.
 2. ഈ കാർഡിൽ സൂചിപ്പിച്ച ജനനത്തീയതി വോട്ടർ പട്ടികയിൽ രജിസ്റ്റർ ചെയ്യുന്നതിനുള്ള ജനനത്തീയതിയുടെ തെളിവുകൊടുക്കുന്നതിനുള്ള ഒരു രേഖയായി പരിഗണിക്കുവാൻ പാടില്ല.
 14 1 128 020 0331
 201510181116

Self Attested,



ANNEXURE-I

CERTIFICATE FROM THE ORGANISATION WHERE THE CANDIDATE IS EMPLOYED

Certified that ~~Mr./Ms./Mrs.~~ Neelima P. is employed as (Designation) Asst. professor in the (Department/Division Name) MCA of (Institution/Industry) Sree Narayana Institute of Technology, Kollam, Kerala 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 : 17/12/20

Signature of the Head of organization with office seal

[Handwritten Signature]

Principal
Sree Narayana
Institute of Technology
Vadakkavila P. O.
Kollam - 10

