



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

APPLICATION FOR ADMISSION TO Ph.D. PROGRAMMES

Date of Application:23-12-2020

Department	ELECTRONICS AND COMMUNICATION ENGINEERING	Application No.	202020181
Area of Research	MEDICAL IMAGE PROCESSING	Research Mode	PART TIME

Name :JASMIN BASHEER
Date of Birth / Age :27-05-1983 / 37 Years
Gender :FEMALE
Category :OBC
e-Mail ID :jasminbasheer@gmail.com
Mobile :9447787407



Jasmin

Father's/Husband's Name	NOUSHAD A R	Father's/Husband's Occupation	GOVT. EMPLOYEE
Family Income	600000	Residential Type	RURAL
Birth Place	KARUNAGAPPALLY	Mother Tongue	MALAYALAM
Religion	MUSLIM	Martial Status	MARRIED
Aadhaar No.	929711569097	PAN No.	BQXPB9650F
Physically Challenged	NO	Type of Disability	-
Address for Communication: SABARICKAL HOUSE VALLIKUNNAM MAVELIKKARA ALAPPUZHA DISTRICT KERALA INDIA Pin-690501		Permenant Address: SABARICKAL HOUSE VALLIKUNNAM MAVELIKKARA ALAPPUZHA DISTRICT KERALA INDIA Pin-690501	

Qualification						
Degree	Discipline	College/university	Year Passed	AVG/CGPA	Class	Mode
B.TECH	ELECTRONICS & COMMUNICATION ENGG.	CUSAT	2005	67.2%	FIRST	REGULAR
M.TECH	INDUSTRIAL INSTRUMENTATION & CONTROL ENGG	UNIVERSITY OF KERALA ERALA	2011	8.12 CGPA	FIRST	REGULAR

Experience					
Organization	Designation	Experience From	Experience TO	Work Nature	
SREEBUDHA COLLEGE OF ENGG, ALAPPUZHA, KERALA	ASSISTANT PROFESSOR	2012-01-05	2020-12-23	FACULTY IN ELECTRONICS & COMMUNICATION ENGG	
YOUNUS COLLEGE OF ENGINEERING, KOLLAM, KERALA	LECTURER	2006-07-03	2009-10-31	FACULTY	

Payment Details

Transaction ID	Reference	Date of transaction	Amount	Status
202020181_201223163455	VHMP9587567534	23-12-2020	600	SUCCESS

Proposed Area and Topic of Research

Name of the Candidate : **Jasmin Basheer**

Field of Research : **Medical Image Processing**

Proposed Title of Work

Deep learning techniques for Brain MRI Segmentation

Research problem

The proposed work is based on Deep learning technique which is a deep neural network and probabilistic neural network to segment abnormal tissues in the brain. The segmentation can be done using a convolution neural network and Probabilistic neural network and compare sketch of various models.

Scientific background

Magnetic resonance imaging (MRI) is usually the modality of choice for structural brain analysis, since it provides images with high contrast for soft tissues and high spatial resolution and presents no known health risks. To quantify tissue atrophy, segmentation and corresponding measurements of brain tissues are needed. Similarly, quantification of change in brain structures requires segmentation of the MRI obtained at different time points.

Novelty

Detecting and analyzing the brain tumor at the earlier stage is an essential one which reduces the possibility to be a victim. Many examinations were conducted by various researchers and finally achieved in identifying several models to detect the presence of brain tumor using machine learning techniques

Objectives

The main objective is to detect abnormal tissue in brain which cause tumor using deep learning technique such as convolution neural network and Probabilistic neural network

Methodology

A large dataset of brain tumor MR scans are collected and analyze using segmentation. The flow chart of proposed method is shown in Figure: 1. The proposed method is divided into five steps; namely, pre-processing, designing model architecture, training data with designed architecture, Testing data, accuracy prediction and comparison.

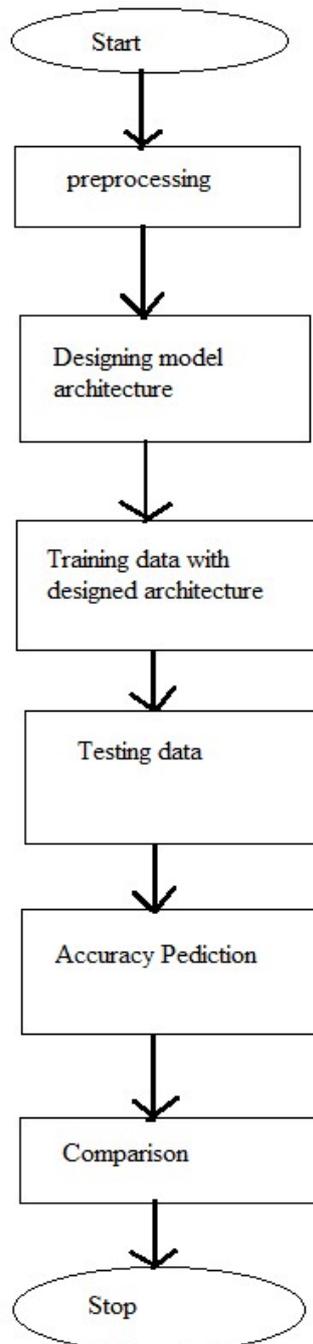


Figure 1

Research time plan (Chart):

Stages of Research	0-6 months	6-12 months	12-18 months	18-24 months	24-30 months	30-36 months
Course Work	✓	✓				
Selection of topic	✓	✓				
Literature Review		✓	✓			
Research methodology plan		✓	✓			
Selection of appropriate research techniques			✓	✓		
Analysis				✓	✓	
Findings and recommendations				✓	✓	
Data Compilation, Publications and Final Report					✓	✓

Possible outcome:

Segmentation of the brain tumors automatically for cancer diagnosis is a challenging task. Even Convolution Neural Network can automatically extract complex features from the images. Further improvements and modifications in CNN architectures and addition of complementary information can improve the efficiency of segmentation.

References:

[1] Zeynetin Akkus, Alfiia Galimzianova, Assaf Hoogi, Daniel L. Rubin & Bradley J. Erickson, “ Deep Learning for Brain MRI Segmentation: State of the Art and Future Directions”, *Journal of Digital Imaging* volume 30, pages449–459(2017), *Science direct*.

- [2] S. Somasundaram R ; R.Gobinath,” . Current Trends on Deep Learning Models for Brain Tumor Segmentation and Detection – A Review”, *2019 IEEE International Conference on Machine Learning, Big Data, Cloud and Parallel Computing (COMITCon)*.
- [3] Alexander Selvikvg Lundervold, ArvidLundervold, “An overview of deep learning in medical imaging focusing on MRI”, *Volume 29, Issue 2, May 2019, Pages 102-127, springler*.
- [4] G Madhupriya;Narayanan M Guru;S Praveen;B Nivetha, “Brain Tumor Segmentation with Deep Learning Technique”, *2019 IEEE 3rd International Conference on Trends in Electronics and Informatics (ICOEI)*.
- [5] Bhagyashree Rajendra Gaidhani;R. R.Rajamenakshi;Samadhan Sonavane, “Brain Stroke Detection Using Convolutional Neural Network and Deep Learning Models”, *2019 IEEE 2nd International Conference on Intelligent Communication and Computational Techniques (ICCT)*.
- [6]K.VenuP. Natesan;N. Sasipriyaa;S. Poorani, “Review on Brain Tumor Segmentation Methods using Convolution Neural Network for MRI Images”, *2018 IEEE International Conference on Intelligent Computing and Communication for Smart World (I2C2SW)*.
- [7] Soukaina El Idrissi El kaitouni;Hamid Tairi, “Segmentation of medical images for the extraction of brain tumors: A comparative study between the Hidden Markov and Deep Learning approaches”,*2020 IEEE International Conference on Intelligent Systems and Computer Vision (ISCV)*.
- [8] Y. LeCun, Y. Bengio, and G. Hinton, “Deep learning, Nature”, *vol.521, no. 7553, pp. 436–444, 2015*.
- [9] Lin D, Vasilakos AV, Tang Y, Yao Y, “ Neural networks for computer-aided diagnosis in medicine: A review”, *Neurocomputing 216:700–708, 2016*.
- [10] . Kooi T et al, “Large scale deep learning for computer aided detection of mammographic lesions”, *Med. Image Anal. 35:303–312, 2017*.

Register No. 10321234 OCT 2005
10321234 NOV 2005



Cochin University of Science and Technology



FACULTY OF ENGINEERING

The Academic Council of the Cochin University of Science and Technology hereby makes known that

Jasmin Basheer

has been awarded the

DEGREE OF BACHELOR OF TECHNOLOGY

in **Electronics and Communication Engineering**

he/she having undergone the prescribed course of study and having been certified by duly appointed examiners to be qualified to receive it and placed by them in the

First Class

at the Examination held in **November, 2005**

Given under the Seal of the University

University Buildings,

Kochi - 682 022.

Dated **25-09-2006**



P. K. Basheer
Vice-Chancellor.

SI.No: 0010272



FACULTY OF ENGINEERING AND TECHNOLOGY

*The Senate of the University of Kerala hereby makes known that **Jasmin Basheer** has been admitted to the Degree of Master of Technology, 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** at the Examination held in **October 2011**, her subject of specialisation being Branch **Electrical and Electronics Engineering**.*

*Elective **Industrial Instrumentation and Control**.*

Given under the seal of the University

University Buildings
Thiruvananthapuram July 06, 2012



Jeejalmh
Vice Chancellor

Cochin University of Science and Technology

KOCHI - 682 022, INDIA



Serial No. : 21640

Section : EK

MEMORANDUM

Dated : 22/03/2006

The following are the marks scored by **JASMIN BASHEER**
at the **B.Tech Degree VIII (FINAL) SEMESTER EXAMINATION - OCTOBER 2005**
Branch : **ELECTRONICS & COMMUNICATION ENGINEERING**

REGISTER NUMBER : 1032123

Sub Code	SUBJECT	External		Internal		Total		Month & Year
		Awd.	Max.	Awd.	Max.	Awd.	Max.	
EC801	AUDIO AND VIDEO SYSTEMS	063	100	045	050	108	150	MAY'05
EC802	VLSI SYSTEM DESIGN	054	100	048	050	102	150	MAY'05
EC803	COMPUTER NETWORKS	045	100	045	050	090	150	MAY'05
EC804	MODERN COMMUNICATION SYSTEMS	045	100	040	050	085	150	MAY'05
EC805	BIOMEDICAL INSTRUMENTATION	053	100	041	050	094	150	OCT'05
EC806	PROJECT WORK	---	---	112	150	112	150	MAY'05
EC807	VIVA - VOCE	066	100	---	---	066	100	MAY'05
Result PASSED		Total for the Eighth Semester				0657	1000	

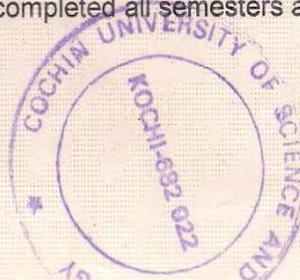
CONSOLIDATION

Semester	Marks Secured	Maximum	Month & Year of Pass
Total of I & II Semester	1106	1700	JUN'02
III Semester	0754	1050	NOV'02
IV Semester	0733	1050	MAY'05
V Semester	0707	1050	DEC'03
VI Semester	0680	1050	JUN'04
VII Semester	0731	1100	NOV'05
VIII Semester	0657	1000	OCT'05
Grand Total	5373	8000	

PASS MINIMUM FOR UNIVERSITY EXAMINATIONS - 801 TO 805 : 45% & PASS MINIMUM (TOTAL) FOR SUBJECTS 801 TO 807 : 50%

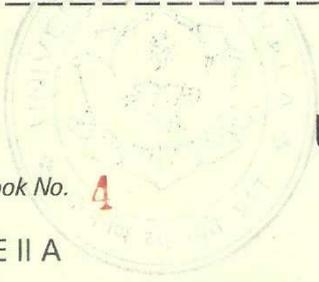
The candidate has successfully completed all semesters and is eligible for the award of B.Tech Degree.

Assy. S.O. A.R. D.R. J.R.



Jasmin Basheer

Controller of Examinations



UNIVERSITY OF KERALA

Book No. **4**

Serial No. **6**

EE II A



Thiruvananthapuram,

Register No. **1006**

Dated **2 - MAR 2012**

M. Tech. GRADE CARD

Name of Candidate : Jasmin Basheer

Name of Examination : Final M. Tech. Degree

Month and Year of Examination : October 2011

Branch : Electrical and Electronics Engineering

Specialisation : Industrial Instrumentation and Control

Course Code	Name of Subjects	Credit (Ci)	Grade
	Thesis and Viva-Voce	12	A

SGPA : 9.00

CGPA : 8.12

Whole Pass Minimum : CGPA \geq 6

Prepared by : [Signature]

Compared by : [Signature]

Section Officer : [Signature]

[Signature]

CONTROLLER OF EXAMINATIONS

Thangal Kunju Musaliar College of Engineering
Kollam - 5, Kerala State

Book No. 01/20



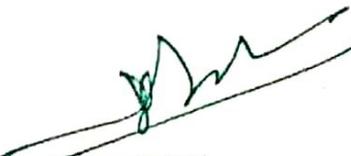
TC No. SF20007

11.12.2020

Transfer Certificate

- 1) Name of student (in full) : JASMIN BASHEER
- 2) Date of birth as entered in the admission register : 27.05.1983
- 3) Admission No. and date of admission : 012/2009 21.10.2009
- 4) Date of leaving : 31.10.2011
- 5) Class in which studied at the time of leaving : IV Semester M.Tech Degree
- 6) Whether qualified for promotion to a higher class : Yes
- 7) Group with subjects : Electrical and Electronics Engineering (Industrial Instrumentation and Control)
- 8) Whether he/she has paid all fees to the College : Yes
- 9) Whether the student was in receipt of any fee concession or scholarship. : No
- 10) Any certificate issued from Institution for Medical Inspection : No
- 11) Name of examination of the University for which the student has been last presented from the College : IV Semester M.Tech Degree Examination University of Kerala
- 12) Reg. No. of student and date of examination : 1006, October 2011
- 13) Whether the student has appeared for the examination :
If appeared Yes
 - i) Part and division he/she has passed : Whole
 - ii) Part and division he/she has failed : Nil
- 14) Reason for leaving : Course completed




PRINCIPAL
THANGAL KUNJU MUSALIAR
COLLEGE OF ENGINEERING
KOLLAM



SREE BUDDHA COLLEGE OF ENGINEERING

PATTOOR P.O., ALAPPUZHA DIST., KERALA. PIN - 690 529

Approved by AICTE, New Delhi & Affiliated to APJ Abdul Kalam Technological University, Kerala

Tel.0479-2375440,42,43. e-mail: principal@sbce.ac.in / sreebuddha@ktu.edu.in website: www.sbce.ac.in

Managed by Sree Buddha Educational Society, Kollam - 691 021



NBA ACCREDITED PROGRAMMES

No. SBCE/ 1634 /2020-21

09.12.2020

EXPERIENCE CERTIFICATE

This is to certify that Ms. Jasmin Basheer , Department of Electronics & communication , has been working in this institution as Lecturer from 05.01.2012 to 11.03.2012 and as Assistant Professor from 12.03.2012 to till date. Her conduct and character are good.

This certificate is issued on her request so as to enable her to apply for part-time PhD registration.

6
9/12/20
(A2)

PRINCIPAL





YUNUS COLLEGE OF ENGINEERING & TECHNOLOGY

VADAKKEVILA P.O., KOLLAM - 691 010, PHONE : OFF : 0474 - 2724305, 2727778, FAX : 0474 - 2726055

(Approved by A.I.C.T.E, Affiliated to University of Kerala)

2ND NOVEMBER, 2009

CONDUCT CERTIFICATE

Certified that Smt. Jasmin Basheer, Sabarickal House, Vallikkunnam P.O. Alappuzha had been working in this institute as Lecturer in Electronics & Communication Engineering Dept. from 03.07.2006 to 31.10.2009.

During the tenure of her service, we found her hard working, honest and sincere.

Her conduct and character were good.



Principal
Younus College of Engineering
& Technology
Kollam - 691 010.



Self
attested
Jasmin

ഇന്ത്യൻ തിരഞ്ഞെടുപ്പ് കമ്മീഷൻ
ELECTION COMMISSION OF INDIA
 സമ്മതിയുടെ ഫോട്ടോ തിരിച്ചറിയൽ കാർഡ് - ELECTOR PHOTO IDENTITY CARD

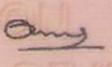
 **DGC1561760**



പേര് : ജാസ്മിൻ ബഷീർ
NAME : Jasmin Basheer

ഭർത്താവിന്റെ : നൗഷാദ് എ.ആർ
HUSBAND'S : Noushad A.R.
NAME

ലിംഗം/ SEX : സ്ത്രീ / Female
 ജനനത്തീയതി / വയസ്സ്
DATE OF BIRTH/AGE : 27/05/1983 / 31
 മേൽവിലാസം : 13/59, ശബരിക്കൽ ഹൗസ്, വള്ളികുന്നം
 690501
**ADDRESS : 13/59, Sabarickal House,
 Vallikunnam 690501**


 ഇലക്ടറൽ രജിസ്ട്രേഷൻ ഓഫീസർ
Date: 04/07/2015 ELECTORAL REGISTRATION OFFICER

അസംബ്ലി നിരയാജകമണ്ഡലം : 109, മാവേലിക്കര
 നമ്പരം പേരം
**ASSEMBLY CONSTITUENCY No. & : 109, MAVELIKARA
 NAME**

പാർട്ടി നമ്പർ : 178
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 കൊണ്ട് മാത്രം നിങ്ങൾ നിലവിലുള്ള വോട്ടർ പട്ടികയിൽ ഒരു സമ്മതിയായകൻ ആകണമെന്നില്ല. ഓരോ തിരഞ്ഞെടുപ്പിനും മുമ്പായി നിലവിലുള്ള വോട്ടർ പട്ടികയിൽ നിങ്ങളുടെ പേര് ഉണ്ടായെന്ന് 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 ചെയ്യുന്നതിനല്ലാതെ ജനനത്തീയതി/വയസ്സ് തെളിയിക്കുന്നതിനുള്ള ഒരു രേഖയായി പരിഗണിക്കുവാൻ പാടില്ല.

0011 109 178 0103
 201505930715

NO. 684/16

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

This is to certify that Shri/Smt/Kumari Jasmin Basbeer
..... Son / daughter of K. Basbeer
Saharickal House Vallikunnam
Village Alappuzha District/Division in the State of Kerala
belongs to Islam muslim Community, which is designated
as a Backward Class in the State of Kerala.

2. This is also to certify that the above Shri/Smt/Kumari Jasmin
Basbeer, Saharickal Vallikunnam P.O. does not belong to the category of
'Creamy Layer' in the light of the guidelines issued in G. O. (P) No. 81 / 09
SC ST DD, dated 26-9-2009 and the schedule prescribed there under to identify
the 'Creamy Layer' among the designated "Other Backward Classes" in the
State of Kerala.

Date 17/02/16

Issuing Authority



Signature :

[Signature]
17/2/16

Name :

B. Govindhara

Designation :

VILLAGE OFFICER
VALLIKUNNAM

(Seal)



SREE BUDDHA COLLEGE OF ENGINEERING

PATTOOR P.O., ALAPPUZHA DIST., KERALA. PIN - 690 529

Approved by AICTE, New Delhi & Affiliated to APJ Abdul Kalam Technological University, Kerala
Tel.0479-2375440,42,43. e-mail: principal@sbce.ac.in / sreebuddha@ktu.edu.in website: www.sbce.ac.in
Managed by Sree Buddha Educational Society, Kollam - 691 021



No. SBCE/ 1635 /Ph.D/2020-21

09.12.2020

ANNEXURE -1

CERTIFICATE FORM THE ORGANISATION WHERE THE CANDIDATE IS EMPLOYED

Certified that Mr/ Ms/ Mrs/ Jasmin Basheer is employed as Assistant Professor in the Department of Electronics & Communication Engineering of Sree Buddha College of Engineering, Pattoor.

We have no objection in forwarding her application for the part time Ph. D Research programme.

The Candidate will be permitted to undertake part time study in the university/ College and will be allowed to be present for discussion 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:09.12.2020

Signature of the Head of organization with office seal

Jasmin Basheer
(A)

