



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

APPLICATION FOR ADMISSION TO Ph.D. PROGRAMMES

Date of Application:01-11-2023

Department	ELECTRONICS AND COMMUNICATION ENGINEERING	Application No.	202312138
Area of Research	IMAGE PROCESSING	Research Mode	PART TIME

Name :GOPU T

Date of Birth / Age :09-04-1984 / 39 Years

Gender :MALE

Category :SC

e-Mail ID :gopu70@gmail.com

Mobile :94897059842



Father's/Husband's Name	A.THANGADURAI	Father's/Husband's Occupation	FARMER
Family Income	20000	Residential Type	RURAL
Birth Place	TIRUNELVELI	Mother Tongue	TAMIL
Religion	HINDU	Martial Status	MARRIED
Aadhaar No.	352996696612	PAN No.	BBQPG2111N
Physically Challenged	NO	Type of Disability	-

Address for Communication:

29/A
 PERUMAL KOVIL STREET
 TIRUNELVELI
 TIRUNELVELI DISTRICT
 TAMILNADU
 INDIAN
 Pin-627358

Permenant Address:

29/A
 PERUMAL KOVIL STREET
 TIRUNELVELI
 TIRUNELVELI DISTRICT
 TAMILNADU
 INDIAN
 Pin-627358

Qualification						
Degree	Discipline	College/university	Year Passed	AVG/CGPA	Class	Mode
B.E	ECE	ANNA UNIVERSITY	2008	6.2	I	REGULAR
M.E	VLSI	ANNA UNIVERSITY	2010	7.2	I	REGULAR

Experience					
Organization	Designation	Experience From	Experience TO	Work Nature	
K.L.N.COLLEGE OF ENGINEERING	ASSITANT PROFESSOR	2010-12-13	2023-11-01	TEACHNING	

Payment Details				
Transaction ID	Reference	Date of transaction	Amount	Status
202312138_231101234112	ZHD51504101777	01-11-2023	600	SUCCESS

DISEASE IDENTIFICATION IN PLANTS USING DEEP LEARNING METHODS

In India about 70% of the population relies on agriculture. It has become significantly more important to feed the steadily growing population. A plant disease is a change of the original state of the plant that affects or modifies its vital functions. It is mainly caused by bacteria, fungi, microscopic animals or viruses, and has a strong impact on agricultural yields and on farm budget. According to the Food and Agriculture Organization of the United Nations, transboundary plant diseases have increased significantly in recent years due to globalization, trade, climate change and the reduction in the resilience of production systems due to decades of agricultural intensification. The risk of transboundary epidemics is increasing and can cause huge losses in crops, threatening the livelihoods of vulnerable farmers and the food and nutritional security of millions of people. Early detection of disease symptoms is one of the main challenges in protecting crops and limiting epidemics. Plant diseases affect the livelihood of this imperative source more. It results in depletion of production and economic losses in agriculture. It is mandatory to protect and control the crops losses in order to aggregate the agricultural productions. Using agronomists, the traditional method, takes a lot of time to continuously observe the crops and moreover finding an agronomist in rural areas is also very challenging. Therefore, developing a system which can use visible or noticeable symptoms to identify and distinguish plant disease habitually to offer appropriate support will unquestionably help all the farmers to reduce crop losses and will increase production. Computer vision is a form of artificial intelligence (AI) that involves using computers to understand and identify diseases in plants. It also helps in increasing the accuracy of disease protection in plants, making it easy to have food security. One of the areas that computer vision has helped most is the detection of the severity of the diseases.

Machine learning is a sub part of artificial intelligence which works automatically or give instructions to do a particular task. Machine Learning (DL), a part of the computer vision, is useful and promising in determining the severity of diseases in plants and animals [2]. It is also used to classify diseases and avoid the late detection of diseases [1]. The main aim of machine learning is to understand the training data and fit that training data into models that should be useful to the people. So it can assist in good decisions making and predicting the correct output using the large amount of training data. The color of leaves, amount of damage to leaves, area of the leaf, texture parameters are used for classification. Hence, image processing and machine learning models can be employed for the detection of plant diseases. The use of computer vision (CV) and machine learning (ML) could improve the detection and fighting of diseases. ML is meant for parsing the data and learning from it. Based on the requirement they applied to get the decision. Several algorithms were developed to address the various tasks of classification, clustering, association rule mining, outlier detection, and so on.

In agribusiness research, ML procedures are on a very basic level used to recognize, perceive, and anticipate crop diseases and plant pressure phenotyping. Many Machine Learning (ML) models have been employed for the detection and classification of plant diseases but, after the advancements in Deep Learning (DL), a subset of ML, appears to have great potential in terms of increased accuracy. Many developed/modified DL architectures are implemented along with several visualization techniques to detect and classify the symptoms of plant diseases. This Deep learning has recently attracted a lot of attention with the aim to develop a quick, automatic and accurate.

Unlike unmistakable confirmation of grains subject to genomics data, ML procedures in plant disease research are significantly dependent on motorized stages, for instance, raised vehicles and ground robots with sensors to assemble steady data from fields



Reg. No. 95508419001



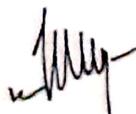
*The Syndicate of the Anna University of Technology Tirunelveli hereby makes known that **GOPU T** has been admitted to the **DEGREE OF MASTER OF ENGINEERING** in **VLSI DESIGN** under the **FACULTY OF INFORMATION AND COMMUNICATION ENGINEERING**, having completed the prescribed programme of study and 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 2010**.*



Given under the seal of the University

TIRUNELVELI-627 007
INDIA
February 2012


Controller of Examinations i/c


Registrar i/c


Vice-Chancellor



ANNA UNIVERSITY TIRUNELVELI



DEGREE EXAMINATIONS CONSOLIDATED STATEMENT OF MARKS

Folio No. : F08000187

NAME OF THE CANDIDATE	GOPU T	REGISTER NO.	95508419001
COLLEGE OF STUDY	FRANCIS XAVIER ENGINEERING COLLEGE	MONTH & YEAR OF LAST APPEARANCE	JUN 2010
PROGRAMME & BRANCH	M.E. - VLSI Design	REGULATIONS	2007

SEM. NO.	SUBJECT CODE	SUBJECT TITLE	MAX	MIN	MARKS SECURED	MONTH & YEAR OF PASSING
01	AN1602	Advanced Digital System Design	100	50	065	DEC 2008
01	AN1603	VLSI Design Techniques	100	50	065	DEC 2008
01	MA1616A	Applied Mathematics for Electronics Engineers	100	50	058	DEC 2008
01	VL1601	DSP Integrated Circuits	100	50	068	DEC 2008
01	VL1602	Solid State Device Modeling and Simulation	100	50	058	DEC 2008
01	VL1603	VLSI Design Laboratory I	100	50	079	DEC 2008
01	VL1624	CMOS VLSI Design	100	50	059	DEC 2008
02	AN1625	ASIC Design	100	50	062	MAY 2009
02	AN1629	Electromagnetic Interference and Compatibility in S	100	50	060	MAY 2009
02	AN1651	Analysis and Design of Analog Integrated Circuits	100	50	061	MAY 2009
02	AN1652	Computer Architecture and Parallel Processing	100	50	059	DEC 2009
02	AN1654	Embedded Systems	100	50	060	MAY 2009
02	VL1651	Computer Aided Design of VLSI Circuits	100	50	063	MAY 2009
02	VL1652	VLSI Design Lab II	100	50	086	MAY 2009
03	VL1621	Testing of VLSI Circuits	100	50	086	DEC 2009
03	VL1622	Low Power VLSI Design	100	50	084	DEC 2009
03	VL1627	VLSI Technology	100	50	059	DEC 2009
04	VL1751	Project Work (Phase II)	600	300	519	JUN 2010

*** End of Statement ***

Classifications :FIRST CLASS

Total Marks : 1651 / 2300

Percentage (rounded to nearest integer) : 72

This document is issued without any correction
Medium of Instruction : English

Tirunelveli - 627 007
Date : 04-Oct-2010

T.Gopu

SIGNATURE OF THE STUDENT



M. [Signature]

CONTROLLER OF EXAMINATIONS

TRANSFER CERTIFICATE

Serial No. **2615**

Admission No. 01/VLSI/09-10

1. Name of the College : FRANCIS XAVIER ENGINEERING COLLEGE
VANNARPETTAI, TIRUNELVELI - 627003.
2. Name of the Student : GOPU . T
3. Name of the Parent : Mr. A. Thangadurai
4. Nationality, Religion and Caste : Indian , Hindu , pallan
5. Community : OC/BC/MBC/SC/ST
6. Sex : Male / Female
7. Date of Birth as entered in the Admission Register (in figures and words) : 09/04/1984 [Nineth - April] -
Nineteen Eighty four]
8. Date of admission and class : 28/08/2008 ME VLSI
9. Whether qualified for promotion to Higher studies : Refer university marks statement
10. Whether the student has paid all fees : yes
11. Whether the student was in receipt of any Scholarship : yes
12. Date on which the student left : 29/07/2010
13. Date of the Transfer Certificate issue : 18/12/2010



[Signature]
PRINCIPAL
PRINCIPAL
Francis Xavier Engineering college
103, G/2 - By-Pass Road, Vannarpetta
Tirunelveli -627 003.



K.L.N. COLLEGE OF ENGINEERING

(Sponsored by K.L.N. Sourashtra College of Engineering Council)
Pottapalayam-630 611, (11 km from Madurai City)

An ISO 9001:2008 Certified Institution
Mechanical Engineering, EEE Departments
are Accredited by National Board of Accreditation, A.I.C.T.E., New Delhi.



☎ : 0452-6562171 & 2
0452-2090971 & 2
0452-2091965
Fax : 0452-2090070

Shri. K.N.K. Ganesh B.E.
President

Shri. S.V.S. Shivnath B.Sc., B.E.,
Secretary & Correspondent

Dr. S. Ganapathy
B.Sc., B.E., M.Sc. (Engg.), Ph.D.,
Principal ☎ 0452-2090184

Ref : KLNCE/B1/TCHG/2010/ 3119

Date :13.12.2010.....

ORDER

Sub : Establishment – Teaching Staff – Mr.T.GOPU,
Appointment as Assistant Professor 1 in the Department of
Electrical and Electronics Engineering - Order Issued

Ref : His application dated 28.10.2010.

Mr.T.GOPU is appointed as Assistant Professor 1 in the Department of Electrical and Electronics Engineering on a Basic pay of Rs.12,400/- in the scale of pay of Rs. 8800-400-15600-500-39100 per month till he qualifies for M.E. Degree ; and on a Basic pay of Rs.18,100/- in the scale of pay of Rs. 8800-400-15600-500-39100 per month from the date he obtains M.E. Degree.

On appointment, he will be on probation for one year from the date of joining. His performance will be reviewed at the end of one year service and further continuation will be decided based on the review. He shall give one month notice before leaving the service of this College. However, he will not be relieved from service in the middle of a semester (period between Reopening day and Last Working Day). Further, he may be relieved of his duties at any time due to administrative reasons with one month notice.

At the time of joining duty, he shall submit all his Original Certificates and he shall give an undertaking to abide by the service rules of the College. He shall not engage himself in any other outside assignments without prior written approval of the Management.

Further, he shall abide by the Terms of Service enclosed in Annexure – I.

As agreed during interview, you can join duty on 13.12.2010.

He has to return a copy of this order duly signed by him in token of having accepted the offer of appointment as Assistant Professor 1.

Encl.: Annexure – I

To

Mr.T.Gopu,
29/A, Perumal Kovil street,
Ayan Alaganeri,
Tirunelveli District – 627 358.

CC to H.O.D./EEE
CC to Accounts section, File.

/KAR

(S.V.S.SHIVNATH)
CORRESPONDENT.

आयकर विभाग
INCOME TAX DEPARTMENT



भारत सरकार
GOVT. OF INDIA

GOPU T
ARUMUGAM THANGADURAI

09/04/1984

Permanent Account Number

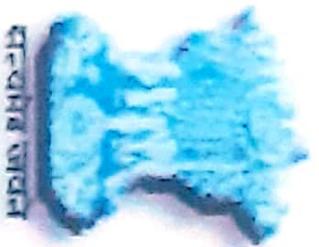
BBQPG2111N

251

68242565

Signature





India Driving Licence(Tamilnadu)
Form 7

DOI 12/06/2012

D.L.No : TN72 20120007978

Name : GOPU T

S/D/W of : THANGA DURAI A

Address :
29/A ALAGANERI PERUMAL KOIL ST

TIRUNELVELI 627006

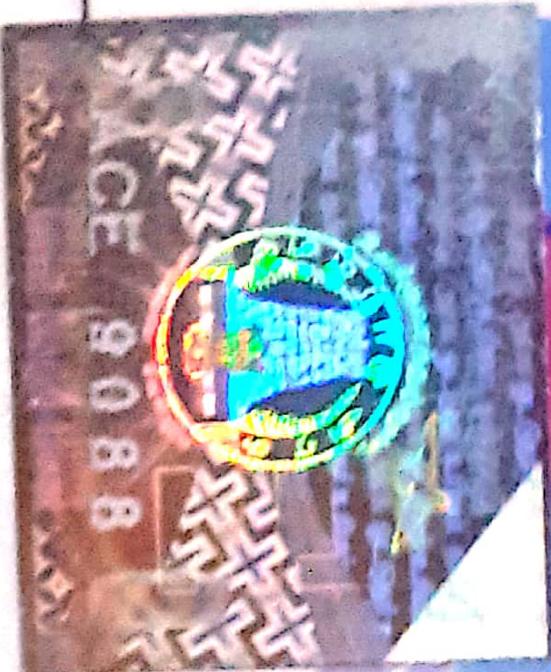
Temp. Addr:

RAJA DRIVING SCHOOL

D.O.B : 09/04/1984

B.G. :

Punishments :



Proposed to drive through the hills, a series of the following destinations:
ATLANTA, GA 12/18/2012 TN TN TN 12/18/2012 TN TN

Now through the hills



Authorized to drive throughout India, vehicles of the following description:
MVA V.C.T. WGT 12/06/2012 TN72 L.M.V 12/06/2012 TN72

Non-Transport Veh. Valid upto 11/06/2012



[Handwritten signature in blue ink]

Signature of the Holder

[Handwritten signature in pink ink]

Signature of the Issuing Authority

Signature of the Issuing Authority

R.Dis. 19.37/2006 dt.

GCP(ET6)-26/3-5,62,800 Cps.-9-6-2000

SC

சான்றிதழ் எண்
Certificate No.

3109387



மாவட்டக் குறியீடு எண்
District Code

18

வட்டக் குறியீடு எண்
Taluk Code

01

கிராமக் குறியீடு எண்
Village Code

054

சாதிச் சான்றிதழ்
COMMUNITY CERTIFICATE

வமிரு திருமெல்வேலி மாவட்டம் திருமெல்வேலி வட்டம்
அழகிரே கிராமம்/நகரம், திரு-திருமதி செல்வி
செல்வன் கேள்ய தகட்பளர்/
கணவர் பெயர் திங்கிச்சை கிங்கி பள்ளி
வகுப்பைச் சார்ந்தவர், தாழ்த்தப்பட்டோர் மற்றும் பழங்குடியினர்
உத்தரவுகள் (திருத்தப்பட்ட) சட்டம், 1976, வரிசை எண் 49 படி
தாழ்த்தப்பட்ட பிரிவைச் சார்ந்தவர் எனச் சான்றளிக்கப்படுகிறது.

This is to certify that திருமெல்வேலி Son / Daughter
of Thiru. அழகிரே of திருமெல்வேலி
Village / Town, திருமெல்வேலி Taluk,
District of the State of Tamil Nadu belongs to
Community, which is recognised as
a Scheduled Caste as per the Scheduled Castes and Scheduled Tribes Orders
(Amendment) Act, 1976, vide Serial No.

2. திரு/திருமதி செல்வன்/செல்வி கேள்ய
என்பவரும் அவருடைய குடும்பத்தினரும் தமிழ்நாட்டில் திருமெல்வேலி
மாவட்டத்தில் திருமெல்வேலி வட்டத்தில் அழகிரே
கிராமத்தில் / நகரத்தில் வசித்து வருகிறார்கள் எனச் சான்றளிக்கப்படுகிறது.

2. It is certified that Thiru/Tmt./Selvan/Selvi கேள்ய
and his/her family ordinarily reside(s) at திருமெல்வேலி Village/Town
திருமெல்வேலி Taluk திருமெல்வேலி District of Tamil Nadu.

முத்திரை:
Seal.



கையொப்பம் :

Signature :

நாள் :

Date :

பெயர் (தனி எழுத்துக்களில்)
Name (in Capital Letters) :

வட்டாப்தியர்

பதவி :

திருமெல்வேலி

Designation :

19.37/2006



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CORRESPONDENT.