



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

APPLICATION FOR ADMISSION TO Ph.D. PROGRAMMES

Date of Application:19-07-2021

| | | | |
|------------------|----------------------------------|-----------------|-----------|
| Department | COMPUTER SCIENCE AND ENGINEERING | Application No. | 202110223 |
| Area of Research | DEEP LEARNING | Research Mode | PART TIME |

Name :KOCHUMOL ABRAHAM
Date of Birth / Age :10-01-1981 / 40 Years
Gender :FEMALE
Category :OC
e-Mail ID :kochumolabraham@gmail.com
Mobile :09446286893



| | | | |
|--|-----------------|---|------------|
| Father's/Husband's Name | WIN MATHEW JOHN | Father's/Husband's Occupation | TEACHER |
| Family Income | 300000 | Residential Type | URBAN |
| Birth Place | KUTTIKANAM | Mother Tongue | MALAYALAM |
| Religion | CHRISTIAN | Martial Status | MARRIED |
| Aadhaar No. | 324238334848 | PAN No. | AZWPK7316C |
| Physically Challenged | NO | Type of Disability | - |
| Address for Communication: MARIAN COLLEGE MARIAN COLLEGE, KUTTIKANAM P O KUTTIKANAM IDUKKI DISTRICT KERALA INDIA Pin-685 531 | | Permenant Address: CHENATHRA CHENATHRA, KODUKULANJI, CHENGANNUR CHENGANNUR DISTRICT KERALA INDIA Pin-689509 | |

| Qualification | | | | | | |
|---------------|------------|--------------------|-------------|----------|-------|---------|
| Degree | Discipline | College/university | Year Passed | AVG/CGPA | Class | Mode |
| M.PHIL | CS | BHARATHIDASAN | 2019 | 82 | FIRST | REGULAR |
| MCA | CS | MG UNIVERSITY | 2004 | 78 | FIRST | REGULAR |
| B.SC | PHYSICS | KERALA | 2001 | 75 | FIRST | REGULAR |

| Experience | | | | | |
|----------------------------|---------------------|-----------------|---------------|-------------|--|
| Organization | Designation | Experience From | Experience TO | Work Nature | |
| MARIAN COLLEGE, KUTTIKANAM | ASSISTANT PROFESSOR | 2009-07-04 | 2021-07-19 | FACULTY | |
| MACFAST, TIRUVALLA | LECTURER | 2005-02-04 | 2008-10-08 | FACULTY | |

| Payment Details | | | | |
|------------------------|----------------|---------------------|--------|---------|
| Transaction ID | Reference | Date of transaction | Amount | Status |
| 202110223_210720225005 | VSBI0128902666 | 20-07-2021 | 600 | SUCCESS |

Abstract

A Framework for Phytopathology using Deep Learning

The tea-growing environment in hilly regions are conducive to a large number of pests and diseases. In order to get high yield and quality tea we need to increase the productivity of our agricultural industries. Analysing the size, growth and performance of tea plants in a plantation site can be time-consuming and laborious. More specifically, when a field site is located in a remote area, it becomes quite expensive to send people out to the field. The ability to collect this information from remote locations in real time will become a valuable tool for the farmers and plant scientists. This can be made possible by integrating the two technologies, IOT and Deep Learning.

IoT is one of the most important technologies of everyday life, and it will continue to pick up steam as more businesses realize the potential of connected devices to keep them competitive. Internet of Things (IoT) describes the network of physical objects that are embedded with sensors, software, and other technologies for the purpose of connecting and exchanging data with other devices and systems over the internet. These devices range from ordinary household objects to sophisticated industrial tools. Seamless communication is possible between people, processes, and things. In this hyperconnected world, digital systems can record, monitor, and adjust each interaction between connected things. The proposed system is an IoT based wireless multisensor network working autonomously and independently, to record environmental conditions, pests detection and identify the factors which lead to changes in leaf patterns and wirelessly transfer this data to a data store in real time.

Deep learning is an important element of data science, which includes predictive modelling. This can create complex statistical models and create accurate predictive models from large quantities of unlabelled, unstructured data. Deep learning is represented by a spectrum of architectures that can build solutions for a range of problem areas. The number of architectures and algorithms that are used in deep learning is wide and varied.

Hence the proposed research is aimed to

- (i) Study and identify the major plant stressors which leads to the yield of tea plants;
- (ii) Develop a deep network architecture for analysis of plants.

Reg. No. 2nd year 310038/April 2000
Year 3rd year 310038/April 2001

273024



FACULTY OF SCIENCE

The Senate of the University of Kerala hereby orders to be known that Kochumol Abraham has been admitted to the Degree of Bachelor of Science for the 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 Second 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 (..... Physics
Main Mathematics and Chemistry
Scholarship) in April 2000, April 2000
and April 2001 respectively

Given under the seal of the University



University Buildings
Kilimanthapuram September 2, 2002

V

Vice-Chancellor

Register No. 2150138
&
Year December 2004

Mahatma Gandhi University



FACULTY OF TECHNOLOGY & APPLIED SCIENCES

The Syndicate of the Mahatma Gandhi University

hereby makes known that

Kochumon Abraham

has been admitted to the

Degree of Master of Computer Applications

he/she having been certified by duly appointed examiners to be qualified to receive the same, and having been by them placed in the

First (with Distinction)

class with Elective (
1: Unix and Shell Programming
*2: Client Server Systems and Applications**)*

at the examination held in December 2004

Given under the seal of the University.

University Buildings,
Kottayam - 686 560
Kerala, India

14 June 2005



Vice-Chancellor

Centre Code: 78 Reg.No. 20795-1811



Order No: 2040: 15th



பாரதிதாசன் பல்கலைக்கழகம்
BHARATHIDASAN UNIVERSITY

(Accredited with A+ Grade by NAAC in the Third Cycle)

Established by the Government of Tamil Nadu in 1982, Recognized by U.C. under 20 and 12B of U.C. Act,
Member, Association of Indian Universities and Association of Commonwealth Universities



அறிவியல் புலம்
FACULTY OF SCIENCE

பாரதிதாசன் பல்கலைக்கழக ஆட்சிக்குழு ஜனவரி 2019
ஆம் ஆண்டு நடைபெற்ற கணிப்பொறியியல் தேர்வில்
கோச்சியோல் அப்துலாஹ் என்பவர்
தனிச்சிறப்பு - முதல் வகுப்பில் D+ தரத்துடன் தேர்ச்சி பெற்றார் என்று
தக்க தேர்வாளர்கள் சான்றிதழ் ஆய்வினைத் துறை
என்றும் பட்டத்தை அளந்ததும் பல்கலைக்கழக இயக்குனரின் அங்கீகரித்தும்.

The Syndicate of the **BHARATHIDASAN UNIVERSITY** hereby makes
known that **KOCHUMOL ABRAHAM** has been
admitted to the Degree of **MASTER OF PHILOSOPHY,** having
been certified by duly appointed Examiners to be qualified to receive the same in
COMPUTER SCIENCE at the Examination held in
JANUARY 2019 and placed in **FIRST CLASS - DISTINCTION WITH D+ GRADE.**

Place of Study: BHARATHI PANDYAR COLLEGE VILLAMPUDI, THANJAVUR.



Given under the seal of the University



திருவி.காளி
Trustee

K. Kalai
University Registrar

P. Manikumar

University Vice-Chancellor

0 008542

Date: 1st October 2019
ISSUED ON: 12-10-2019





SECONDARY SCHOOL LEAVING CERTIFICATE EXAMINATION

Name of Candidate: KOCHUMGL ABRAHAM

(Block Capital)

Register Number: 589727 Month & Year: MARCH 1964

| Subject | Marks in the Public Examination | | | | Marked for a year | |
|---|---------------------------------|-----------|-------------|---------|-------------------|------|
| | Theory | Practical | Grand Total | | Pass | Fail |
| | | | in 1964 | in 1963 | | |
| Group A - Languages FIRST LANGUAGE Part I - Hindi | 38 | 64 | 190 | | 24 | |
| Part II - English | 36 | 72 | 108 | | 13 | |
| SECOND LANGUAGE Part I - Hindi | 46 | 72 | 118 | | 11 | |
| Part II - English | 46 | 72 | 118 | | 15 | |
| THIRD LANGUAGE Hindi | 30 | 34 | 64 | | 18 | |
| Group B - Science SOCIAL SCIENCE Part I - History & Civics Grand Total of both | 44 | 86 | 130 | | 21 | |
| Part II - Geography Natural Science & Science | 42 | 73 | 115 | | 20 | |
| PHYSICS Part I - Physics | 34 | 78 | 112 | | 14 | |
| Part II - Chemistry | 37 | 78 | 115 | | 16 | |
| Part III - Biology & Mathematics | 40 | 78 | 118 | | 18 | |
| MATHEMATICS Part I | 36 | 68 | 104 | | 16 | |
| Part II | 33 | 68 | 101 | | 17 | |
| Total | 406 | 464 | 870 | | 462 | 408 |

(Marks - 60 and above: First Class with Distinction; 50 to 59: First Class; 40 to 59: Second Class; 30 to 39: Third Class)

✓

PASSED
By the Board of Secondary Education, Madhya Pradesh

[Signature]

J. S. SINGH
Secretary, Board of Secondary Education, Bhopal, Madhya Pradesh

UNIVERSITY OF KERALA

Section E. A

S. No. 17816

Book No. 173



Thiruvananthapuram

20 MAY 1998
Date

STATEMENT OF MARKS

The following marks were awarded to Student Recharul Abraham at the Second Year Pre-Degree Examination March/September 1998.

Reg. No. 7408

| Subject | Marks awarded (in figure) | Marks awarded (in words) | Maximum Marks required for a pass | Maximum Marks |
|---------------------------------------|---------------------------|--------------------------|-----------------------------------|---------------|
| Part A - English | 63 | Six Three | 35 | 100 |
| Part B - Additional Language Hindi | 53 | Five Three | 35 | 100 |
| Part C - Optional Subjects | | | | |
| 1. Physics | 72 | Seven Two | 35 | 100 |
| 2. Chemistry | 64 | Six Four | 35 | 100 |
| 3. Biology | 65 | Six Five | 35 | 100 |
| Total for Part C | 201 | Two Zero One | 105 | 300 |
| Grand Total | 317 | Three One Seven | 175 | 300 |

The Candidate will be eligible for Part Certificate only on successful completion of both the First and the Second Year Pre-Degree Examinations.

Marks entered by [Signature]

Marks rechecked by [Signature]

Section Officer [Signature]

Asst. Registrar [Signature]

[Signature]

CONTROLLER OF EXAMINATIONS

Book No. 27

No. E. D. 9



Thiruvananthapuram,

Dated 26.1.2001

MEMORANDUM

The following marks were awarded to

Shri/Smt. Kochumol Abraham

at the Final year B. Sc. Degree Examination of April/October 2001.

Register Number 310038

Second year B. Sc. Department Marks

| Subject | Marks awarded | | |
|-----------------------------|---------------|----------|---------------|
| | In figures | In words | Maximum marks |
| Part III - Main Paper II | — | — | 50 |

| Subjects | Marks awarded | | Minimum for a pass | Maximum Mark |
|--|---------------|------------------|-----------------------|-----------------|
| | In figures | In words | | |
| PART III - OPTIONAL SUBJECTS | | | | |
| (a) Physics Main | | | | |
| Written Examination | 235 | | | 250 |
| Internal Assessment | 67 | | | 70 |
| Total | 302 | Three Zero Two | 140 | 400 |
| Practical & Laboratory Records | 154 | | | 160 |
| Internal Assessment | 15 | | | 15 |
| Total | 171 | One seven One | 45 | 180 |
| Total for Main | 473 | Four Seven Three | 210 | 600 |
| (b) Seminary Subjects | | | | |
| 1. Mathematics | 139 | One Three Nine | 70 | 200 |
| 2. Chemistry/Soil Science/Biochemistry | 134 | One Three Four | 70 | 200 |
| Total for Part III | 746 | Seven Four Six | 280 | 1000 |

Prepared by

Checked by

Section Officer

K. U. P. 11/2001-02 (0067) 104

CONTROLLER OF EXAMINATIONS



Mahatma Gandhi University

Book No. : 2

Serial No. : 86

Section : EH- IV



KOTTAYAM,

Dated: 22 JAN 2005

MEMORANDUM

The following marks were awarded to Shri/Smt. Koehursool Abraham.....
candidate with Reg. No. 9150138... at the Sixth (Final) Semester Master of Computer
Applications Examination of December... 2004

| SUBJECTS | Marks awarded | Minimum marks required for a pass | Maximum Marks |
|--|--------------------|-----------------------------------|---------------|
| MCA 601 Project work (Sessional Marks) | 188 | 100 | 200 |
| MCA 602 Project Evaluation | 84 | 40 | 100 |
| VIVA - VOCE | 87 | 40 | 100 |
| Total for VI Semester | 359 | 200 | 400 |
| Total for VI Semester in Words | Three five nine | | |
| Total for I Semester | 448 | 300 | 600 |
| Total for II Semester | 466 | 300 | 600 |
| Total for III Semester | 413 | 300 | 600 |
| Total for IV Semester | 451 | 300 | 600 |
| Total for V Semester | 466 | 300 | 600 |
| GRNAD TOTAL | 2603 | 1700 | 3400 |
| GRAND TOTAL IN WORDS | Two six zero three | | |

Marks entered by : Indu

Marks checked by : Beetha

Section Officer : [Signature]

Asst. Registrar : [Signature]

[Signature]
CONTROLLER OF EXAMINATIONS



BHARATHIDASAN UNIVERSITY

(Re-accredited with 'A' Grade by National Assessment and Accreditation Council (NAAC))

TIRUCHIRAPPALLI - 620 024, TAMILNADU, INDIA
CUMULATIVE M. PHIL. STATEMENT OF MARKS AND GRADES

JAN 2019

FOLIO No.: PGR 00335

Examinations of Post Graduate Programmes Under Choice Based Credit System (CBCS)

Name of the Candidate: **ADICHUNDI ABRAHAM** Register No: **2K17FT-18913**

Degree: **M. PHIL.** Programme: **COMPUTER SCIENCE** Years of Study: **2017-2018**

Centre: **7th - MARUTHI PANDIYAR COLLEGE VALLAM(P.O) THANJAVUR 613 403**

| Sem. Course Code | Course Title | Marks Secured | | | Grade Point | Grade/Credit | Result | Month Year |
|--------------------------|--|---------------|-----|------------------|----------------|--------------|--------|---------------|
| | | CIA | ESE | Total Max=100 | | | | |
| 9CS1 | RESEARCH METHODOLOGY | 53 | 46 | 79 | 8.0 | D | 4 | PASS FEB 11 |
| 9CS2 | ADVANCED PAPER IN COMPUTER SCIENCES | 54 | 40 | 74 | 7.5 | A++ | 4 | PASS FEB 11 |
| 9CS3 | ARTIFICIAL INTELLIGENCEA NEURAL NETWORKS | 39 | 46 | 85 | 8.5 | D+ | 4 | PASS FEB 11 |
| 9NTLS4 | TEACHING AND LEARNING SKILLS | 53 | 37 | 70 | 7.0 | A+ | 4 | PASS FEB 11 |
| ----- | DISSERTATION AND VIVA-VOCE | 46 | 142 | 188 | 9.5 | S | 8 | PASS JAN 19 |
| *** END OF STATEMENT *** | | | | | | | | |

NOTE:

DATE OF VIVA:30-01-2019
 MAXIMUM : CIA-40 ; ESE -60
 MINIMUM : ESE-40% ; 50% IN (CIA+ESE)
 DISSERTATION:MAXIMUM-150; MINIMUM-75
 VIVA-VOCE :MAXIMUM-50 ; MINIMUM-25
 CREDITS TO QUALIFY FOR A DEGREE:24

| Current Semester Performance | | | | Cumulative Performance | | | | Classification |
|------------------------------|-----|-------|--------|------------------------|------|-------|--------|---|
| WAM | GPA | GRADE | CREDIT | WAM | GPA | GRADE | CREDIT | |
| -- | -- | -- | -- | 82.67 | 8.33 | D+ | 24 | FIRST CLASS - DISTINCTION WITH D+ GRADE |

For Details of Choice Based Credit System, see website: www.bdu.ac.in - Registrar, BDU - Continuous Internal Assessment, ESE - End Semester Examinations

For Post Graduate Programmes - CIA - 40%, ESE - 40% and Total - 80% (CIA + ESE) 23-07-2019
For Under Graduate Programmes - ESE - 40% and Total - 100% (CIA + ESE)



(Handwritten signatures and stamps)



MARUDUPANDIYAR COLLEGE

(Affiliated to Bharathidasan University, Thiruchirappalli)
257/4A, Trichy Main Road, Pillaiyarpatti, Vallam Post, Thanjavur - 613 403.

TRANSFER & CONDUCT CERTIFICATE

| | | | |
|--|----------------------------|---------|---------|
| 1. Sl.No | 9977 | Roll No | CS17103 |
| 2. Name Of the Student | KOCHUMOL ABRAHAM | | |
| 3. Name of the Father/Mother | M O ABRAHAM | | |
| 4. Date of birth as entered in the Admission Register | 10/01/1981 | | |
| 5. Nationality | INDIAN | | |
| 6. Religion | CHRISTIAN | | |
| 7. Community as entered in the College Records | OC | | |
| 8. Course Of Study | M.Phil IN COMPUTER SCIENCE | | |
| 9. Academic Year in which the student was admitted to the course and date of admission | 2017-2018(27/06/2017) | | |
| 10. Duration of the Course | 1 Year (s) | | |
| 11. Whether completed the course/ Qualified for promotion of higher class | REFER TO MARK SHEET | | |
| 12. Whether the student has paid all the fees to the college | Yes | | |
| 13. Date on which the student left the college | 30/08/2018 | | |
| 14. Date on Which the T.C issued | 29/01/2019 | | |
| 15. Reasons for leaving | COURSE COMPLETED | | |
| 16. Student's Conduct and Character | GOOD | | |



C. S. K.
29.1.19.
Principal,
Marudupandiyar College,
Thanjavur.



MARIAN COLLEGE
KUTTIKKANAM
(AUTONOMOUS)

SERVICE CERTIFICATE

This is to certify that Ms. Kochumol Abraham is working as Assistant Professor in the Department of MCA from July 2009 till date on regular basis.

Place: Kutikkanam
Date: 23-11-2020




Signature of the
Head of the Institution / Employer
with office seal

आयकर विभाग
INCOME TAX DEPARTMENT

भारत सरकार
GOVT. OF INDIA

KOCHUMOL ABRAHAM
O M K ABRAHAM
10/01/1981
Permanent Account Number
AZWPK7316C

Signature



Attested




भारत सरकार



आधार संख्या: 3242 3833 4848

नाम:
 पते:
 जिला:
 राज्य:
 आधार संख्या:
 आधार प्रकार:
 आधार जारी तिथि:
 आधार जारी स्थान:
 आधार जारी अधिकारी:
 आधार जारी अधिकारी पद:
 आधार जारी अधिकारी का पता:
 आधार जारी अधिकारी का फोन नंबर:
 आधार जारी अधिकारी का मोबाइल नंबर:
 आधार जारी अधिकारी का ईमेल पता:
 आधार जारी अधिकारी का पता:
 आधार जारी अधिकारी का फोन नंबर:
 आधार जारी अधिकारी का मोबाइल नंबर:
 आधार जारी अधिकारी का ईमेल पता:

आधार संख्या: 3242 3833 4848



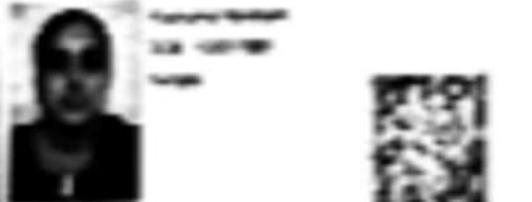
आधार संख्या: 3242 3833 4848



आधार संख्या: 3242 3833 4848

3242 3833 4848

आधार - आम आदमी का अधिकार



3242 3833 4848

आधार - आम आदमी का अधिकार

Attested
[Signature]

ANNEXURE-I

CERTIFICATE FROM THE ORGANISATION WHERE THE CANDIDATE IS EMPLOYED

Certified that Mrs. Kochumol Abraham is employed as Assistant Professor in the MCA Department of Marian College Kuttikkanam (Autonomous).

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

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: 15/07/2021



Signature of the Head of Organization with office seal
Principal
Marian College, Kuttikkanam