# 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:25-12-2020

| | | | |
|---|---|---|---|
| Department | COMPUTER SCIENCE AND ENGINEERING | Application No. | 202020204 |
| Area of Research | DATA MINING & IMAGE PROCESSING | Research Mode | PART TIME |

**Name** :SHANMUGHA PRIYA R. K.

**Date of Birth / Age** :11-05-1977 / 43 Years

**Gender** :FEMALE

**Category** :OC

**e-Mail ID** :priyaramachanthiran@gmail.com

**Mobile** :9487659410

| Father's/Husband's Name | RAMA CHANDRAN G. | Father's/Husband's Occupation | - |
|---|---|---|---|
| Family Income | 240000 | Residental Type | RURAL |
| Birth Place | NAGERCOIL | Mother Tongue | TAMIL |
| Religion | HINDU | Martial Status | MARRIED |
| Aadhaar No. | 459669512433 | PAN No. | CEGPS0763G |
| Physically Challenged | NO | Type of Disability | - |

| Address for Communication: | Permenant Address: |
|---|---|
| 10/56 SOUTH STREET, ASHRAMAM, SUCHINDRAM POST AGASTHEESWARAM TALUK KANYAKUMARI DISTRICT TAMIL NADU INDIA Pin-629704 | 10/56 SOUTH STREET, ASHRAMAM, SUCHINDRAM POST AGASTHEESWARAM TALUK KANYAKUMARI DISTRICT TAMIL NADU INDIA Pin-629704 |

Qualification

| Degree | Discipline | College/university | Year Passed | AVG/CGPA | Class | Mode |
|---|---|---|---|---|---|---|
| M. E. | COMPUTER SCIENCE AND ENGINEERING | MANONMANIAM SUNDARANAR UNIVERSITY | 2013 | 82.44 | FIRST WITH DISTINCTION | REGULAR |
| MCA | COMPUTER APPLICATION | MADUARI KAMARAJ UNIVERSITY | 2001 | 71.78 | FIRST | DISTANCE |

Experience

| Organization | Designation | Experience From | Experience TO | Work Nature |
|---|---|---|---|---|
| MAR EPHRAEM COLLEGE OF ENGINEERING AND TECHNOLOGY | ASSISTANT PROFESSOR | 2016-06-15 | 1970-01-01 | TEACHING |

Payment Details

| Transaction ID | Reference | Date of transaction | Amount | Status |
|---|---|---|---|---|
| 202020204_201225195649 | VUR29594703213 | 25-12-2020 | 600 | SUCCESS |

# DEEP LEARNING NEURAL NETWORK ARCHITECTURE FOR DETECTION OF TUMOR IN MR BRAIN IMAGES

Data mining is an emerging technology that helps in retrieving information from large databases. Data mining is complimenting various industries including business, science, medical, education, finance and more. Image segmentation is used with several data mining techniques to diagnose diseases, identify and locate tumors. The back propagation neural network is a classical technique for the detection of tumors. Apart from BPNN, many other neural networks are also there like probabilistic neural network, radial basic function neural network for medical applications. This research work proposes deep learning neural network architecture for the diagnosis of tumors. The DLCNN can process 2D image data as well as speech signals. The evolution of deep learning architecture started in 1965; however, nowadays, it gains prominence for real-world applications like image classification, video classification, natural language processing, visual tracking, and speech recognition.

The CNN is one of the widely used deep learning architectures, and the proposed segmentation algorithm is a fully automatic algorithm and its efficiency relies on the training. The CNN structure mimics the biological structure of animal visual cortex. The CNN gains a prominent role in image and video processing, natural language processing due to the minimal pre-processing required. Prior to segmentation, the preprocessing was performed by min-max normalization. The CNN comprises multiple convolution layers preceded by one or more fully connected layer. The convolution layer is the basic building block of CNN, and it comprises Gaussian kernel masks. The filter mask is convolved with the height and width of the image and generates a feature map or activation map. The convolution layer is followed by rectified linear units (ReLU) layer, and here in this layer, the ReLU function is applied to the feature map. The pooling is a key feature of CNN in which the downsampling is performed. The pooling dimension size is predefined and based on that, the input feature map image was subdivided into rectangles; the maximum value in the sub-block is the resultant value. The fully connected layer is the last layer, and it uses hyperbolic sigmoid as the activation function.

The deep learning neural architecture generates superior results for the diagnosis of tumor in MR brain images.

Reg. No. 3067

# மனோன்மணியம் சுந்தரனார் பல்கலைக்கழகம்
## Manonmaniam Sundaranar University

பொறியியற் புலம்

## FACULTY OF ENGINEERING

மனோன்மணியம் சுந்தரனார் பல்கலைக்கழக ஆட்சிக்குழு

சண்முக ப்ரியா இரா கி

கணினி இயல் மற்றும் பொறியியலில் பொறியியல் நிறைஞர்

பட்டம் பெறுவதற்குத் தகுதியுடையவர் என முறையாக அமைக்கப்பெற்ற தேர்வினோர்

சான்றளித்தவாறு    ஏப்பிரல்    2013    இல் நடத்திய தேர்வுகளில்

சான்றளித்தபடி, அன்னவர்    தனிச்சிறப்பான முதல்    வகுப்புப்பெற்று

இந்தப் பட்டப்பேற்றுக்கு உரியவர் ஆகின்றார் என இதன்வழி அறிவிக்கின்றது.

பல்கலைக்கழக முத்திரையுடன் இது வழங்கப்படுகின்றது.

The Syndicate of the **MANONMANIAM SUNDARANAR UNIVERSITY**

hereby makes known that    SHANMUGHA PRIYA R K

has been admitted to the Degree of

**MASTER OF ENGINEERING IN COMPUTER SCIENCE AND ENGINEERING**

he / she having been certified by duly appointed Examiners to be

qualified to receive the same at the Examination held in    APRIL    2013
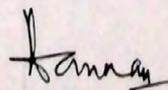
and having been placed in the    FIRST CLASS WITH DISTINCTION
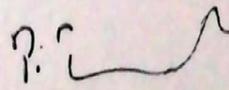
Given under the seal of the University.

திருநெல்வேலி, இந்தியா
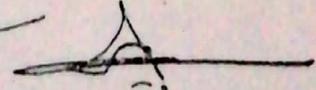Tirunelveli, India
நாள், Dated 23.09.2013

(Dr.N.Kannan)
தேர்வாணையர்
Controller of Examinations

(Dr.T.Tamizh Chelvam)
பதிவாளர்
Registrar

(Dr.A.K.Kumaraguru)
துணை வேந்தர்
Vice-Chancellor

# மனோன்மணியம் சுந்தரனார் பல்கலைக்கழகம்
# MANONMANIAM SUNDARANAR UNIVERSITY

TIRUNELVELI, TAMILNADU, INDIA.

## CHOICE-BASED CREDIT SYSTEM

CSCB 00007514

### STATEMENT OF MARKS

COURSE : M.E. COMPUTER SCIENCE AND ENGINEERING (PART-TIME)

| NAME OF THE CANDIDATE | REGISTER NUMBER | DATE OF PUBLICATION | SEMESTER |
|---|---|---|---|
| SHANMUGHA PRIYA R K | 3067 | 29/07/13 | SIXTH |

| COLLEGE OF STUDY | COLLEGE NO | CENTRE NO. | EXAM MONTH AND YEAR |
|---|---|---|---|
| UNIVERSITY DEPARTMENT | 454 | 454 | A-2013 |

| SUBJECT CODE | SUBJECT NAME | COURSE CATEGORY | CREDITS | MARKS INT | MARKS EXT | MARKS AGRE | RESULT | MON-YR OF PASSING | CREDITS ACQUIRED | MARKS x CREDITS |
|---|---|---|---|---|---|---|---|---|---|---|
| B11MP | Mathematical Foundation of Computer Science | C | 4 | 14 | 38 | 52 | PASS | N-10 | 4 | 208 |
| B12MP | Data Structures & Algorithms Using C++ | C | 4 | 23 | 56 | 79 | PASS | N-10 | 4 | 316 |
| B13MP | Computer Networks | C | 4 | 21 | 51 | 72 | PASS | N-10 | 4 | 288 |
| BL1MP | Data Structures & Algorithms Using C++ | L | 4 | 36 | 54 | 90 | PASS | N-10 | 4 | 360 |
| B21MP | Principles of Compiler Design | C | 4 | 19 | 51 | 70 | PASS | A-11 | 4 | 280 |
| B22MP | Software Engineering | C | 4 | 19 | 59 | 78 | PASS | A-11 | 4 | 312 |
| B23MP | Digital Image Processing | C | 4 | 21 | 44 | 65 | PASS | A-11 | 4 | 260 |
| BL2MP | Network Programming Lab | L | 4 | 39 | 52 | 91 | PASS | A-11 | 4 | 364 |
| B31MP | Mobile Computing | C | 4 | 22 | 58 | 80 | PASS | N-11 | 4 | 320 |
| B32MP | Soft Computing | C | 4 | 22 | 61 | 83 | PASS | N-11 | 4 | 332 |
| BEAMP | Network Security | E | 4 | 21 | 63 | 84 | PASS | N-11 | 4 | 336 |
| BL3MP | Mat Lab | L | 4 | 36 | 58 | 94 | PASS | N-11 | 4 | 376 |
| BEBMP | Object Oriented Analysis and Design | E | 4 | 24 | 58 | 82 | PASS | A-12 | 4 | 328 |
| BECMP | Data Mining & Data Warehouse | E | 4 | 23 | 55 | 78 | PASS | A-12 | 4 | 312 |
| BEGMP | Parallel Processing | E | 4 | 22 | 56 | 78 | PASS | A-12 | 4 | 312 |
| BL4MP | Advanced Programming Lab (Graphics/Networks Simulator) | L | 4 | 36 | 57 | 93 | PASS | A-12 | 4 | 372 |
| BP1MP | Mini Project | P | 10 | 37 | 55 | 92 | PASS | N-12 | 10 | 920 |
| BP2MP | Project Work/Viva Voce | P | 16 | 39 | 50 | 89 | PASS | A-13 | 16 | 1424 |

Weighted Average Marks of Subjects passed = Total of (Marks x Credits) / Total of Credits Acquired = 82.44

CLASS FIRST WITH DISTINCTION

TOTAL 70 | 7420

| THEORY | MARKS | INT | EXT | AGRE |
|---|---|---|---|---|
| THEORY | MAXIMUM | 25 | 75 | 100 |
| | PASSING MINIMUM | - | 38 | 50 |
| PRACTICAL | MAXIMUM | 40 | 60 | 100 |
| | PASSING MINIMUM | - | 30 | 50 |

COURSE CATEGORIES
C - CORE SUBJECT
O - OPTIONAL SUBJECT
L - LABORATORY / PRACTICAL
S - SUPPORTIVE COURSE
P - PROJECT WORK

SIGNATURE OF THE CANDIDATE

Dr.S.Prabahar
CONTROLLER OF EXAMINATIONS

Scanned with CamScanner

# மனோன்மணியம் சுந்தரனார் பல்கலைக்கழகம்
# MANONMANIAM SUNDARANAR UNIVERSITY
## TIRUNELVELI

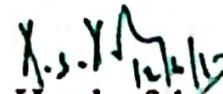Department of *Computer Science & Engineering*

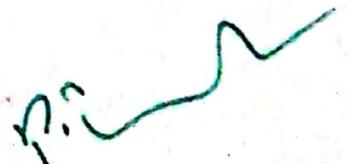## TRANSFER CERTIFICATE

Folio No: 4048

Admission No:

1. Name of the Candidate : R. K. Shanmugha Priya

2. Name of the Father /Mother/ Guardian : G. Rama chandran

3. Date of birth as entered in the
   Admission Register : 11. 5. 1977

4. Gender : Male / **Female** / Transgender

5. Date of Admission to the University : 31. 8. 2010

6. Date of leaving : 27. 5. 2013

7. Course in which the student was studying
   at the time of leaving : M. E. (Part time)

8. Whether the student is qualified for
   promotion to higher studies : Refer Mark Statement

9. Whether the student has returned all the
   books and paid all the fees or other
   dues payable to the University : Yes

10. Reason for leaving the University : **Completed** / Discontinued

11. Date on which the application for
    Transfer Certificate was made : 27. 5. 13

12. His/ Her Conduct and character : Good

Date:

Signature of the
Student

Head of the
Department

Registrar

Ref. No. MECET/App/2016/160

15.06.2016

## Appointment Order

Ms. R.K. Shanmugha Priya is appointed temporarily as Assistant Professor in the School of Computer Science and Engineering w.e.f 15.06.2016 F.N.

The appointment is governed by the Rules & Regulations of employment framed by the management.

She shall report for duty before the Secretary/Correspondent Mar Ephraem College of Engineering and Technology on 15.06.2016 F.N.

She is requested to submit an undertaking to the effect that she should abide by the rules and regulations of the management. On completion of two years from her joining, her term of appointment may be extended after the assessment of her work by the management.

Correspondent/ Secretary

Fr. PREM KUMAR M.S.W
CORRESPONDENT SECRETARY
MAR EPHRAEM
COLLEGE OF ENGINEERING & TECHNOLOGY
MALANKARA HILLS, ELAVUVILAI-629 171
MARTHANDAM, KANYAKUMARI DIST.

To

Ms. R.K. Shanmugha Priya,
10/56, South Street,
Ashramam,
Suchindram Post-629704,
K.K. Dist.

Copy to: Principal
Office

**Vision:** A world class Malankara Institution of higher learning renowned for its excellence in science and technology, and for its commitment to the holistic development of the individuals and society.

**Mission:** MAR EPHRAEM COLLEGE OF ENGINEERING AND TECHNOLOGY is committed to provide quality and value-based education for the industrial and socio-economic development of the nation with its diverse cultures through relevant programmes in teaching and learning, research, extension and community involvement.

आयकर विभाग

**INCOME TAX DEPARTMENT**

भारत सरकार

**GOVT. OF INDIA**

**SHANMUGA PRIYA R K**

**RAMACHANDRAN**

**11/05/1977**

Permanent Account Number

**CEGPS0763G**

Signature

# இந்திய அரசாங்கம்
## Unique Identification Authority of India
# Government of India

பதிவு அடையாளம் / Enrollment No.: 1092/78018/04593

To

சண்முக ப்ரியா ராமசந்திரன் கிருஷ்ணம்மாள்
Shanmugha Priya Ramachandran Krishnammal
D/O Ramachandran
NO 10-56 SOUTH STREET
ASHRAMAM SUCHINDRUM
Agasteeswaram
Suchindrum
Kanniyakumari
Tamil Nadu 629704
9487659410

29/01/2013

28224972

MN282249720FT

உங்கள் ஆதார் எண் / Your Aadhaar No. :

# 4596 6951 2433

ஆதார் - சாதாரண மனிதனின் அதிகாரம்

---

✂ - - - - - - - - - - - - - - - - - - - - - - - - -

இந்திய அரசாங்கம்
Government of India

சண்முக ப்ரியா ராமசந்திரன் கிருஷ்ணம்மாள்
Shanmugha Priya Ramachandran Krishnammal
தந்தை : ராமச்சந்திரன்
Father : RAMACHENDREN
பிறந்தவருடம் / Year of Birth : 1977
பெண்பால் / Female

## 4596 6951 2433

ஆதார் - சாதாரண மனிதனின் அதிகாரம்