



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

**APPLICATION FOR ADMISSION TO Ph.D. PROGRAMMES**

Date of Application:28-06-2020

Department	COMPUTER SCIENCE AND ENGINEERING	Application No.	20200159
Area of Research	MACHINE LEARNING	Research Mode	PART TIME

**Name** :ABIRAMI B  
**Date of Birth / Age** :14-05-1977 / 43 Years  
**Gender** :FEMALE  
**Category** :OC  
**e-Mail ID** :nbs.abirami@gmail.com  
**Mobile** :9500868990



<b>Father's/Husband's Name</b>	BALASUBRAMANIAN	<b>Father's/Husband's Occupation</b>	RETIRED CENTRAL GOVERNMENT EMPLOYEE
<b>Family Income</b>	6,00,000	<b>Residential Type</b>	URBAN
<b>Birth Place</b>	DINDIGUL	<b>Mother Tongue</b>	TAMIL
<b>Religion</b>	HINDU	<b>Martial Status</b>	DIVORCED
<b>Aadhaar No.</b>	663146249105	<b>PAN No.</b>	AIUPA2002L
<b>Physically Challenged</b>	NO	<b>Type of Disability</b>	-
<b>Address for Communication:</b> B3, ALAGAR AMRUTH APARTMENTS GAYATHRI NAGAR, TIRUVANA KOIL TRICHY TRICHY DISTRICT TAMILNADU INDIA Pin-620005		<b>Permenant Address:</b> B3, ALAGAR AMRUTH APARTMENTS GAYATHRI NAGAR, TIRUVANA KOIL TRICHY TRICHY DISTRICT TAMILNADU INDIA Pin-620005	

Qualification						
Degree	Discipline	College/university	Year Passed	AVG/CGPA	Class	Mode
M.TECH	CSE	SASTRA	2006	8.4 CGPA	FWD	REGULAR
B.E	CSE	RVS COLLEGE OF ENGINEERING AND TECHNOLOGY	1999	66%	SECOND	REGULAR

Experience					
Organization	Designation	Experience From	Experience TO	Work Nature	
SASTRA	ASST PROFESSOR	2001-07-02	2011-04-30	TEACHING	
MAM COLLEGE OF ENGINEERING	PROFESSOR	2011-05-02	2012-06-18	TEACHING	
MAM COLLEGE OF ENGINEERING AND TECHNOLOGY	PROFESSOR	2012-06-19	2014-03-05	TEACHING	
MAM SCHOOL OF ENGINEERING	PROFESSOR	2014-03-06	1970-01-01	TILL DATE IN TEACHING AND ADMINISTRATION	

Payment Details				
Transaction ID	Reference	Date of transaction	Amount	Status

20200159_200629130920	SSBI8943439163	29-06-2020	600	SUCCESS
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## APPLICATION OF OPTIMIZATION TECHNIQUES TO IMPROVE MACHINE LEARNING SYSTEMS

Machine learning is one of the rapidly developing fields, which has led to numerous theoretical breakthroughs and is one of the very few techniques which finds application in various fields.

Machine Learning has been one of the key areas attracting many researches taking it as a vital research directions, to deploy the techniques in various fields such as Machine Translation, Speech Recognition, Image Recognition, Recommendation System etc.,

Optimization strategies has recently become the integral part of Machine Learning, drawing the attention of researchers across the industries. It is evident that with the exponential growth of data and the increasing complexity of models have paved the way for diverse optimization techniques to improvise the Machine Learning Algorithms. The essence of most machine learning algorithms is to build an optimization model and learn the parameters in the objective function from the given data[1].

Most of the machine learning problems are much more flexible that, once formulated, can be solved as optimization problems, thereby increasing the probability of finding solutions for more critical challenges. Still, applying optimization in the fields of deep neural network, reinforcement learning, meta learning, variational inference and Markov chain Monte Carlo witness different difficulties and challenges. As it is known that the optimization methods pertaining to specific machine learning fields are distinct and complex at times, this as inspiring vertical to research for a more generic optimization methods.

Deep Neural Networks (DNNs) have shown great success in pattern recognition and machine learning. There are two very popular NNs, i.e., convolutional neural networks (CNNs) [2] and recurrent neural networks (RNNs), which play important roles in various fields of machine learning. CNNs are feed forward neural networks with convolution calculation. CNNs have been successfully used in many fields such as image processing [3], video processing [4] and natural language processing (NLP) [5]. NNs are a kind of sequential model and very active in NLP [6],. Besides, RNNs are also popular in the fields of image processing [7] and video processing [8]. In the field of constrained optimization, RNNs can achieve excellent results [9], [10]. In these

works, the parameters of weights in RNNs can be learned by analytical methods, and these methods can find the optimal solution according to the trajectory of the state solution.

#### REFERENCES:

- [1]. S. Sun, Z. Cao, H. Zhu and J. Zhao, "A Survey of Optimization Methods From a Machine Learning Perspective," in *IEEE Transactions on Cybernetics*, doi: 10.1109/TCYB.2019.2950779.
- [2]. Y. LeCun and L. Bottou, "Gradient-based learning applied to document recognition," *Proceedings of the IEEE*, vol. 86, pp. 2278–2324, 1998.
- [3] A. Krizhevsky, I. Sutskever, and G. E. Hinton, "Imagenet classification with deep convolutional neural networks," in *Advances in neural information processing systems*, 2012, pp. 1097–1105.
- [4] A. Karpathy and G. Toderici, "Large-scale video classification with convolutional neural networks," in *IEEE Conference on Computer Vision and Pattern Recognition*, 2014, pp. 1725–1732.
- [5] Y. Kim, "Convolutional neural networks for sentence classification," in *Conference on Empirical Methods in Natural Language Processing*, 2014, pp. 1746–1751.
- [6] S. Lai, L. Xu, and K. Liu, "Recurrent convolutional neural networks for text classification," in *Association for the Advancement of Artificial Intelligence*, 2015, pp. 2267–2273.
- [7] K. Gregor and I. Danihelka, "Draw: A recurrent neural network for image generation," *arXiv preprint arXiv:1502.04623*, 2015.
- [8] A. Ullah and J. Ahmad, "Action recognition in video sequences using deep bi-directional LSTM with CNN features," *IEEE Access*, vol. 6, pp. 1155–1166, 2017.
- [9] Y. Xia and J. Wang, "Robust regression estimation based on lowdimensional recurrent neural networks," *IEEE Transactions on Neural Networks and Learning Systems*, vol. 29, no. 12, pp. 5935–5946, 2018.
- [10] Y. Xia, J. Wang, and W. Guo, "Two projection neural networks with reduced model complexity for nonlinear programming," *IEEE Transactions on Neural Networks and Learning Systems*, pp. 1–10, 2019.





**Shanmugha**  
Arts, Science, Technology & Research Academy (SASTRA)

(Declared as Deemed-to-be-University by the Government of India)



**SCHOOL OF COMPUTING**

*Be it known to all by these presents that the Board of Management of  
Shanmugha Arts, Science, Technology & Research Academy (SASTRA)  
upon the recommendation of the faculty has conferred upon*

**ABIRAMI, B.**

*the degree of*

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

*and placed her in First Class with Distinction in the Examination held in May - 2006.*

*Given under the seal of the University, this day the 19th August 2006 at  
Shanmugha Campus, Tirumalaisamudram, Thanjavur-613 402, India.*

Dean

Registrar

Vice-Chancellor



# MADURAI KAMARAJ UNIVERSITY

B.E. DEGREE EXAMINATION

BRANCH : COMPUTER SCIENCE ENGINEERING

## STATEMENT OF MARKS

RS 0026699

NAME OF THE CANDIDATE		REGISTER NO.	CENTRE NO.	COLLEGE OF STUDY		EXAM M & YR	DATE OF PUBLICATION												
ABIRAMI B		9530394	589	R.V.S COLLEGE OF ENGG. AND TECH., DINDIGUL		APR 1999	28-07-99												
SUB CODE	SUBJECT DESCRIPTION	MAX MARK			MARKS OBTAINED			SUB CODE	SUBJECT DESCRIPTION	MAX MARK			MARKS OBTAINED						
		I	E	T	I	E	T			R	M/YR	I	E	T	R	M/YR			
511	ENGLISH	---	100	100	---	083	083	P	A95	K62	OPERATING SYSTEMS	---	100	100	---	073	073	P	A97
512	MATHEMATICS	---	100	100	---	046	046	P	A95	K63	SYSTEM MODELLING & SIMULATION	---	100	100	---	072	072	P	A97
513	APPLIED PHYSICS	---	100	100	---	051	051	P	A95	K64	ANALOG & DIGITAL INSTRUMENTATION	---	100	100	---	069	069	P	A97
514	APPLIED CHEMISTRY	---	100	100	---	045	045	P	A95	K65	SYSTEM DESIGN WITH ADVANCED MICROPROCESSORS	---	100	100	---	056	056	P	A97
515	BASIC ENGINEERING - I	---	100	100	---	048	048	P	A95	K66	DATA BASE MANAGEMENT SYSTEMS	---	100	100	---	050	050	P	A97
516	BASIC ENGINEERING - II	---	100	100	---	049	049	P	A95	K67	DATA BASE MANAGEMENT SYSTEMS LAB	---	100	100	---	092	092	P	A97
517	ENGINEERING DRAWING	---	100	100	---	048	048	P	A95	K68	INSTRUMENTATION LAB	---	100	100	---	062	062	P	A97
518	PHYSICS LABORATORY	---	100	100	---	047	047	P	A95	K71	RESOURCE MANAGEMENT	---	100	100	---	045	045	P	A97
519	CHEMISTRY LABORATORY	---	100	100	---	065	065	P	A95	K72	COMPUTER GRAPHICS	---	100	100	---	078	078	P	A97
51A	WORKSHOP	---	100	100	---	071	071	P	A95	K73	SYSTEMS SOFTWARE	---	100	100	---	065	065	P	A97
K31	MATHEMATICS - III	---	100	100	---	049	049	P	N96	K74	COMPUTER NETWORKS	---	100	100	---	078	078	P	A97
K32	PROGRAMMING LANGUAGES - I (FORTRAN & COBOL)	---	100	100	---	066	066	P	N95	K77	SYSTEM SOFTWARE & GRAPHICS LAB	---	100	100	---	081	081	P	A97
K33	ELECTRIC CIRCUITS	---	100	100	---	045	045	P	N95	K78	PERIPHERALS & INTERFACING LAB	---	100	100	---	085	085	P	A97
K34	ELECTRON DEVICES	---	100	100	---	048	048	P	A96	K7A	COMPILER DESIGN	---	100	100	---	068	068	P	A97
K35	ELECTRICAL ENGINEERING	---	100	100	---	045	045	P	A99	K7C	DATA COMMUNICATION	---	100	100	---	075	075	P	A97
K36	DIGITAL LOGIC DESIGN & COMPUTER ORGANISATION	---	100	100	---	045	045	P	N95	K81	SOFTWARE ENGINEERING	---	100	100	---	049	049	P	A98
K37	ELECTRICAL & ELECTRON DEVICES LAB	---	100	100	---	058	058	P	A96	K82	ARTIFICIAL INTELLIGENCE & EXPERT SYSTEMS	---	100	100	---	068	068	P	A98
K38	PROGRAMMING LAB - I (FORTRAN & COBOL)	---	100	100	---	045	045	P	N95	K83	COMPUTER EVALUATION & MAINTENANCE	---	100	100	---	051	051	P	A98
K41	MATHEMATICS - IV	---	100	100	---	064	064	P	A96	K86	PROJECT & VIVA - VOCE	---	200	200	---	180	180	P	A98
K42	MICROPROCESSORS & ASSEMBLY LANGUAGE PROGRAMMING	---	100	100	---	077	077	P	A96	K8E	MICROPROCESSOR BASED INSTRUMENTATION & CONTROL	---	100	100	---	082	082	P	A98
K43	COMMUNICATION ENGINEERING	---	100	100	---	066	066	P	A96	K8J	PC & PC BASED SYSTEMS	---	100	100	---	053	053	P	A98
K44	PROGRAMMING LANGUAGES ( PASCAL, C & C++)	---	100	100	---	080	080	P	A96		<<< END OF STATEMENT >>>								
K45	DATA STRUCTURES	---	100	100	---	083	083	P	A96										
K46	DESIGN & ANALYSIS OF ALGORITHM	---	100	100	---	057	057	P	A96										
K47	MICROPROCESSORS & ASSEMBLY LANGUAGE PROGRAMMING LAB	---	100	100	---	085	085	P	A96										
K48	PROGRAMMING LAB - II ( PASCAL, C & C++)	---	100	100	---	076	076	P	A96										
K51	NUMERICAL METHODS	---	100	100	---	062	062	P	N96										
K52	LINEAR INTEGRATED CIRCUITS & APPLICATIONS	---	100	100	---	073	073	P	N96										
K53	DIGITAL ELECTRONICS	---	100	100	---	085	085	P	N96										
K54	DISCRETE MATHEMATICS	---	100	100	---	055	055	P	N96										
K55	CONTROL SYSTEMS	---	100	100	---	045	045	P	N96										
K56	COMPUTER SYSTEM ARCHITECTURE	---	100	100	---	064	064	P	N96										
K57	INTEGRATED CIRCUITS LAB	---	100	100	---	073	073	P	N96										
K58	FILE DESIGN & DATA STRUCTURE LAB	---	100	100	---	080	080	P	N96										
K61	ENGINEERING ECONOMICS & MANAGEMENT	---	100	100	---	046	046	P	A97										
CLASS		SECOND			TOTAL MARKS		3104/4700												

Signature of the Candidate

D.R.S.M. SUBBURAJ

Controller of Examinations

Any alteration or overwriting makes this statement of Marks invalid.

Dated

Place

Madurai- 625 021

Other Abbreviations - R - Result; P - Pass, F - Fail; AAA - Absent; SUB - Subject; M - Month;

(A - April; N - November) YR - Year; MAX - Maximum; I - Internal; E - External; T - Total



# SHANMUGHA

ARTS, SCIENCE, TECHNOLOGY & RESEARCH ACADEMY  
(SASTRA)

Deemed University

Thanjavur - 613 402, Tamil Nadu, India.

## Cumulative Grade Sheet

M.Tech. Degree Examinations 2003 - 2006

Register Number : 010695001 / Name of the Candidate : Abirami, B /

Programme : Computer Science & Engineering (Part Time)

Course Code	Name of the Subject / Course	Semester	Credit	Grade	Month & Year of Passing
<b>Semester : 1</b>					
PCSE101R01 /	ADVANCED MATHEMATICS FOR COMPUTER ENGINEERS /	1	3 /	A /	Feb -2004
PCSE102E11 /	REAL TIME SYSTEMS /	1	3 /	B /	Feb -2004
PCSE103E03 /	COMPUTER NETWORKS /	1	3 /	A /	Feb -2004
PCSE104R01 /	COMPUTER PROGRAMMING LAB /	1	1 /	A /	Feb -2004
<b>Semester : 2</b>					
PCSE201R01 /	DISTRIBUTED COMPUTING /	2	3 /	S /	Jun -2004
PCSE202R01 /	OOPS FOR MODELING /	2	3 /	A /	Jun -2004
PCSE203E13 /	NETWORK SECURITY /	2	3 /	A /	Jun -2004
PCSE204R01 /	VISUAL PROGRAMMING LAB /	2	1 /	S /	Jun -2004
<b>Semester : 3</b>					
PCSE301R01 /	CRYPTOGRAPHY /	3	3 /	B /	Nov -2004
PCSE302R01 /	ADVANCED ALGORITHMS /	3	3 /	S /	Nov -2004
PCSE303E06 /	OPERATING SYSTEMS /	3	3 /	S /	Nov -2004
PCSE304R01 /	INTERNET PROGRAMMING LAB /	3	1 /	A /	Nov -2004
<b>Semester : 4</b>					
PCSE401R01 /	SOFTWARE TESTING AND VALIDATION /	4	3 /	S /	May -2005
PCSE402R01 /	ADVANCED CONCEPTS IN DATABASE SYSTEMS /	4	3 /	S /	May -2005
PCSE403E12 /	IMAGE PROCESSING TECHNIQUES /	4	3 /	A /	May -2005
PCSE404R01 /	MINI PROJECT /	4	2 /	A /	May -2005
<b>Semester : 5 &amp; 6</b>					
PCSE501R01 /	PROJECT WORK /	5 & 6	22 /	A /	May -2006

Total Credits : 63 / CGPA: 8.4127 /

Semesters 1 to 6. Total CGPA secured: 8.4127 /

**FINAL RESULT: Passed in FIRST CLASS WITH DISTINCTION**

Place : SASTRA, THANJAVUR.

Date : 05-06-2006

Controller of Examinations



DEPARTMENT OF GOVERNMENT EXAMINATIONS, MADRAS 600 006

**SECONDARY SCHOOL LEAVING CERTIFICATE**

X - STANDARD - REVISED PATTERN

ISSUED UNDER THE AUTHORITY OF THE GOVERNMENT OF TAMIL NADU

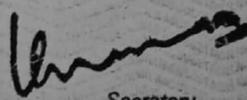
*Certified that***B. ABIRAMI***appeared for the* **APR. 1992***SSLC Public Examination and obtained the following percentage of marks:*

SUBJECT	MARKS
TAMIL	92 NINE TWO
ENGLISH	88 EIGHT EIGHT
MATHEMATICS	100 ONE HUNDRED
SCIENCE	93 NINE THREE
SOCIAL SCIENCE	74 SEVEN FOUR
TOTAL	447. FOUR FOUR SEVEN

DATE OF BIRTH	REGISTER NO.	TMR CODE NO. & DATE
14.05.1977	080790	A070353 16.06.1992
SCHOOL		
HINDY G HS WATRAP		

A PASS IN THE SSLC (X STD.) EXAMINATION REQUIRES A MINIMUM OF THIRTY FIVE PERCENT OF MARKS IN EACH ONE OF THE FIVE SUBJECTS. THIS INCLUDES PASSING UNDER THE COMPARTMENTAL SYSTEM ALSO.

*B. Abirami* 22-06-92  
Candidate's Signature :

  
Secretary  
BOARD OF SECONDARY EDUCATION  
TAMIL NADU

DEPARTMENT OF GOVERNMENT EXAMINATIONS MADRAS 600 006

# HIGHER SECONDARY COURSE CERTIFICATE

GENERAL EDUCATION:

ISSUED UNDER THE AUTHORITY OF THE GOVERNMENT OF TAMIL NADU

*Certified that*

**B ABIRAMI**

*appeared for the* **MAR.1994**

*Higher Secondary Examination and obtained the following marks:*

SUBJECT	MARKS OBTAINED FOR 200
TAMIL	164 ONE SIX FOUR
ENGLISH	180 ONE EIGHT ZERO
PHYSICS	188 ONE EIGHT EIGHT
CHEMISTRY	196 ONE NINE SIX
BIOLOGY	183 ONE EIGHT THREE
MATHEMATICS	134 ONE EIGHT FOUR
<b>TOTAL MARKS :</b>	<b>1095 ONE ZERO NINE FIVE</b>

**GROUP CODE 501**

DATE OF BIRTH	REGISTER NO.	TMR CODE NO. & DATE
14/05/77	653158	G042922 25.05.1994
SCHOOL		
HINDU HSS WATRAP		

MINIMUM FOR A PASS : 70 MARKS OUT OF 200 IN EACH SUBJECT. THIS INCLUDES PASSING UNDER THE COMPARTMENTAL SYSTEM ALSO.

*Abirami B.*  
*26/05/77*  
 Veterinary Assistant  
 Veterinary Dispensary  
 Secretary

Candidate's Signature: *Abirami B.* 26/05/77

BOARD OF HIGHER SECONDARY EXAMINATION  
 TAMIL NADU



**SHANMUGHA**  
**ARTS, SCIENCE, TECHNOLOGY & RESEARCH ACADEMY (SASTRA)**  
**DEEMED UNIVERSITY**  
**THANJAVUR - 613 402, TAMIL NADU, INDIA.**

Ph : 91 4362 264101 - 108  
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URL : www.sastra.edu

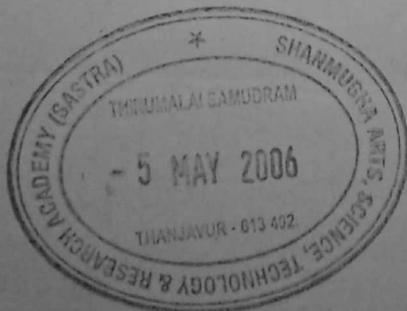
Date : 5.5.2006

**COURSE COMPLETION CERTIFICATE**

This is certify that **Chi / Kum.**

B. ABIRAMI Reg.No 610695001 has

been a student of our University in the VI Semester of the 6 semester M.Tech degree programme (Part-time) in Computer Science & Engineering in the 2003 - 2006 batch. The candidate has successfully completed the course including the project and viva-voce. The results are likely to be released in the month of June 2006.



*J. S. S. 214*

(Prof. E.V.Kanagasabai)  
Registrar i/c

Shanmugha Arts, Science, Technology &  
Research Academy (SASTRA)  
Tirumalaisamudram,  
Thanjavur-613 402



# SASTRA UNIVERSITY

(A University under section 3 of the UGC Act, 1956)

THANJAVUR - 613 401, TAMIL NADU, INDIA.

Prof. S.N. Srivastava, Ph.D.

Ref. SASTRA/SM/SOC/C421/11

02.05.2011

## SERVICE CERTIFICATE

Name : Smt B. Abirami  
Designation : Assistant Professor – III (AP3)  
School : Computing  
Date of Joining : 02.07.2001  
Date of Relieving : 30.04.2011  
Reason for leaving : Resigned  
Last pay drawn : Rs.37,200/- per month  
Conduct & Character : Good

9.10



*S.N. Srivastava*  
(Dr S.N. Srivastava)  
Registrar

REGISTRAR  
SASTRA UNIVERSITY  
TIRUMALAIKANDURAM,  
THANJAVUR



# M.A.M. COLLEGE OF ENGINEERING

Approved by AICTE, New Delhi

Affiliated to Anna University, Chennai

(An ISO 9001 : 2008 Certified Institution and Accredited by NBA)



Ref: MAMCE / E1/ T/Ser.Cer./2016 – 17

24.03.2017

## SERVICE CERTIFICATE

Name : Prof. B. Abirami

Date of Joining : 02.05.2011

Post held : Professor / CSE Dept.

Length of Service : 02.05.2011 to 18.06.2012  
(1 year 1 Month 16 Days)

Remarks : Conduct and Character are Good.

Principal

Principal  
M.A.M. College of Engineering  
Trichy - Chennai Trunk Road  
Siruganur, Tiruchirappalli - 621 105.

Trichy - Chennai Trunk Road, Siruganur, Tiruchirappalli - 621 105. Ph: +91 - 431 - 2650 550, Fax: +91 - 431 - 2650 377,

Web : [www.mamce.org](http://www.mamce.org) | E-Mail : [principal@mamce.org](mailto:principal@mamce.org)

Ref: MAMCET/E/T/15/Ser.Cer./2016-17

20-03-2017

**SERVICE CERTIFICATE**

Name : Mrs. B. ABIRAMI  
Date of joining : 19.06.2012  
Post held : Professor & HOD  
Department of Information Technology  
Length of service : From 19.06.2012 to 05.03.2014  
(1Year 8 Months 17 Days)  
Remarks : Conduct and Character are GOOD.

*J. M. 21/3/17*  
**PRINCIPAL**

Principal  
M.A.M. College of Engineering and Technology  
Siruganur, Tiruchirappalli.



आयकर विभाग  
INCOME TAX DEPARTMENT

भारत सरकार  
GOVT. OF INDIA

ABIRAMI B  
BALASUBRAMANIAN

14/05/1977

Permanent Account Number  
AIUPA2002L

  
Signature





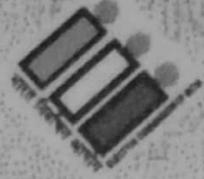
*In case this card is lost / found, kindly inform / return to :*  
Income Tax PAN Services Unit, ITTISI,  
Plot No. 3, Sector 11, CBD Belapur,  
Navi Mumbai - 400 614.

इस कार्ड के खोने/पाने पर कृपया सूचित करें/वापस करें :  
आयकर पैन सेवाएँ इकाई, ITTISI,  
प्लॉट नं. 3, सेक्टर 11, सी.बी.डी. बेलपुर,  
नवी मुंबई - 400 614.





இந்திய தேர்தல் ஆணையம்  
Election Commission of India



வாக்காளர் புகைப்பட அடையாள அட்டை ELECTOR PHOTO IDENTITY CARD



UCH0870675



வாக்காளரின் : **அபிராமி**  
பெயர்

Elector's : **ABIRAMI**  
Name

உறவினரின் : **பாலசுப்ரமணியன்**  
பெயர்

Relation's : **BALASUBRAMANIAN**  
Name

**CERTIFICATE FROM THE ORGANISATION WHERE THE CANDIDATE IS EMPLOYED**

Certified that Mrs.B. Abirami is employed as Professor in the CSE Department of M. A. M. School of Engineering, Siruganur, Trichy.

We have no objection in forwarding her application for the 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 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 : 26-06-2020



Signature of the Head of organization  
with office seal

**Dr. P.RANJITH KUMAR, M.E., Ph.D.**

**PRINCIPAL**

**M.A.M. School of Engineering  
Siruganur, Trichy-621 105.**