



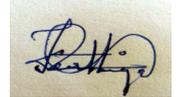
Anand Nagar, Krishnankoil - 626126, Srivilliputtur (via), Virudhunagar District, Tamilnadu.

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

Date of Application:08-12-2020

Department	COMPUTER SCIENCE AND ENGINEERING	Application No.	202020074
Area of Research	NETWORKS	Research Mode	FULL TIME

**Name** :KEERTHIGA.S  
**Date of Birth / Age** :07-08-1990 / 30 Years  
**Gender** :FEMALE  
**Category** :MBC  
**e-Mail ID** :ayishasaranya@gmail.com  
**Mobile** :8220172598



<b>Father's/Husband's Name</b>	SEKAR	<b>Father's/Husband's Occupation</b>	FARMER
<b>Family Income</b>	140000	<b>Residential Type</b>	RURAL
<b>Birth Place</b>	MADURAI	<b>Mother Tongue</b>	TAMIL
<b>Religion</b>	HINDU	<b>Martial Status</b>	SINGLE
<b>Aadhaar No.</b>	988094976869	<b>PAN No.</b>	EUAPK4220E
<b>Physically Challenged</b>	NO	<b>Type of Disability</b>	-
<b>Address for Communication:</b> 1/W-111 WEST STREET AUNDIPATTY THENI DISTRICT TAMIL NADU INDIA Pin-625512		<b>Permenant Address:</b> 1/W-111 WEST STREET AUNDIPATTY THENI DISTRICT TAMIL NADU INDIA Pin-625512	

Qualification						
Degree	Discipline	College/university	Year Passed	AVG/CGPA	Class	Mode
M.E`	CSE	ANNA UNIVERSITY	2015	7.3	FIRST CLASS	REGULAR
B.E	CSE	ANNA UNIVERSITY	2012	7.1	FIRST CLASS	REGULAR

Experience					
Organization	Designation	Experience From	Experience TO	Work Nature	
THENI KAMMAVAR SANGAM COLLEGE OF TECHNOLOGY	AP	2019-02-13	2020-12-08	TEACHING	

Payment Details				
Transaction ID	Reference	Date of transaction	Amount	Status
202020074_201210101513	VHMP9544415050	10-12-2020	600	SUCCESS

# **INCREASING QoS AND RELOCATING GATEWAY IN 4G NETWORK USING THRESHOLD: A GRAPH THEORITICAL APPORACH**

## **ABSTRACT**

1G technology is used to make a voice call only, this technology uses analog signals. In this technology signal quality is very less and it is not accurate so we move to the next generation. That is 2G technology; in this we can make a call and SMS to another node. In 2G we convert an analog signal into digital signals. It takes some time to convert analog in to digital, so the user have to wait until he/she get the replay from the other node. To overcome this we move to 3G technology. Internet was introduced in 3G. It is used to make a call, SMS and Internet. Packet switching was introduced in this technology. It transmits 384 kbps, i.e. for downloading a movie it will take min of 26 hrs. To overcome this limitation we move up to the next generation of technology that is 4G. This network was designed especially for making a video calls and fast browsing. So they introduced a latest technology LTE (Long Term Evaluation). By using this LTE, the network speed is better while comparing to the 3G technology (100 mbps), i.e. for downloading a movie it will take minimum of 6 min. But if a node gets a call from another node, it switches to 3G or 2G network. To overcome this VOLTE (Voice Over LTE) was introduced. By using this VOLTE we can browse and make a call at a time. So from this we can get a conclusion, the technologies are developed only to increase the speed of the internet. There is no focus on call quality and security of the data.

4G, short for fourth generation, which is the current technology, is going to lead the mobile telecommunications technology. In our proposed system, the handoff/handover technique is implemented between gateway to gateway and base station to base station, to increase the speed by reducing the looping. Velocity based handoff scheme is introduced in 4G. In this method Stations will choose the Access Point based on the signal strength of Access Point and velocity of the moving node. Each Access Points propagates its coverage range; initially we set one threshold value for better handoff. When the node crosses the threshold value, it will scan the best Access Point for handoff. Threshold values are generated by signal strength of the Access Points. After select the Access Point, it will handoff / handover to the corresponding Access Point. Hence reducing the packet loss there by maintaining the signal strength stable during the handoff / handover.

# Anna University



Reg.No. 212213405017/RG

*The Syndicate of the Anna University hereby makes known that*  
**KEERTHIGA S** *has been admitted to the* **DEGREE OF MASTER OF ENGINEERING** *in* **COMPUTER SCIENCE AND ENGINEERING** *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 2015** .

*Given under the Seal of the University*



Chennai 600 025  
India  
January 2016

  
Controller of Examinations

  
Registrar

  
Vice-Chancellor

# Anna University



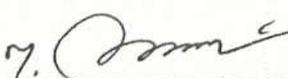
Reg.No. 98808132016/RG

*The Syndicate of the Anna University hereby makes known that*  
**KEERTHIGA S** *has been admitted to the* **DEGREE OF BACHELOR OF ENGINEERING** *in* **COMPUTER SCIENCE AND ENGINEERING** *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* **NOVEMBER 2012.**

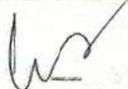
*Given under the Seal of the University*



Chennai 600 025  
India  
September 2013  
HCU/MTR/413200970

  
Controller of Examinations

  
Registrar

  
Vice-Chancellor



**ANNA UNIVERSITY, CHENNAI - 25**  
**M.E. DEGREE EXAMINATIONS**  
**CONSOLIDATED STATEMENT OF GRADES**

K105021972527S

Folio No. AUY11667328



NAME OF THE CANDIDATE	KEERTHIGA S			REGISTER NO.	212213405017
DATE OF BIRTH	07-AUG-90	GENDER	FEMALE	MONTH & YEAR OF LAST APPEARANCE	JUN 2015
COLLEGE OF STUDY	SAVEETHA ENGINEERING COLLEGE			REGULATIONS	2013
PROGRAMME & SPECIALIZATION	M.E. Computer Science and Engineering				

SEM. NO.	COURSE CODE	COURSE TITLE	CREDITS	LETTER GRADE	GRADE POINT	MONTH & YEAR OF PASSING
01	CP7101	Design and Management of Computer Networks	3	C	7	JAN 2014
01	CP7102	Advanced Data Structures and Algorithms	3	E	5	JAN 2014
01	CP7103	Multicore Architectures	3	E	5	JAN 2014
01	MA7155	Applied Probability and Statistics	4	C	7	JAN 2014
01	CP7004	Image Processing and Analysis	3	C	7	JAN 2014
01	CP7007	Software Requirements Engineering	3	C	7	JAN 2014
01	CP7111	Advanced Data Structures Laboratory	2	S	10	JAN 2014
01	CP7112	Case Study - Network Design (Team Work)	1	S	10	JAN 2014
02	CP7201	Theoretical Foundations of Computer Science	4	C	7	JUN 2014
02	CP7202	Advanced Databases	3	E	5	JUN 2014
02	CP7203	Principles of Programming Languages	3	D	6	JUN 2014
02	CP7204	Advanced Operating Systems	3	E	5	JUN 2014
02	IF7202	Cloud Computing	3	E	5	JUN 2014
02	NE7202	Network and Information Security	3	C	7	JUN 2014
02	CP7211	Advanced Databases Laboratory	2	A	9	JUN 2014
02	CP7212	Case Study - Operating Systems Design (Team Work)	1	A	9	JUN 2014
03	CP7301	Software Process and Project Management	4	D	6	NOV 2014
03	CP7019	Managing Big Data	3	E	5	NOV 2014
03	CP7026	Software Quality Assurance	3	C	7	NOV 2014
03	CP7028	Enterprise Application Integration	3	D	6	NOV 2014
03	CP7311	Project Work (Phase I)	6	S	10	NOV 2014
04	CP7411	Project Work (Phase II)	12	S	10	JUN 2015

\*\*\* End of Statement \*\*\*

**Cumulative Grade Point Average : 7.31**

**Classification : FIRST CLASS**

PROGRESS THROUGH KNOWLEDGE



Medium of Instruction : ENGLISH

Chennai - 25

Date: 20/07/2015

SIGNATURE OF THE STUDENT



CONTROLLER OF EXAMINATIONS

*[Signature of Controller of Examinations]*



# ANNA UNIVERSITY, CHENNAI - 600 025

## B.E. DEGREE EXAMINATIONS CONSOLIDATED STATEMENT OF GRADES

Folio No. **TRIC107296**  
K1052445211205



NAME OF THE CANDIDATE		KEERTHIGA S		REGISTER NO.		98908152016		REGULATIONS		2008			
COLLEGE OF STUDY		THENI KAMAYAR SANGAM COLLEGE OF TECHNOLOGY		GENDER		FEMALE		DATE OF BIRTH		07-AUG-90			
PROGRAMME & BRANCH		B.E. COMPUTER SCIENCE AND ENGINEERING		MONTH & YEAR OF LAST APPEARANCE		November 2012		MEDIUM OF INSTRUCTION		English			
SEM	COURSE CODE	COURSE TITLE	C	LG	GP	MONTH & YEAR OF PASSING	SEM	COURSE CODE	COURSE TITLE	C	LG	GP	MONTH & YEAR OF PASSING
01	CS1101	Fundamentals of Computing and Programming	4	C	7	NOV 2008	06	CS1353	Distributed Systems	3	C	7	APR 2011
01	HS1101	Technical English I	3	E	5	NOV 2008	06	CS1354	Graphics and Multimedia	4	C	7	APR 2011
01	HS1102	Engineering Physics I	3	C	7	NOV 2008	06	CS1355	Cryptography and Network Security	3	C	7	NOV 2011
01	HS1103	Engineering Chemistry I	4	E	5	NOV 2008	06	CS1356	Numerical Methods	4	C	7	APR 2011
01	MA1101	Mathematics I	3	D	6	NOV 2008	06	MA1251	Compiler Design Laboratory	2	S	10	APR 2011
01	ME1101	Engineering Graphics	5	C	7	NOV 2008	06	CS1360	Graphics and Multimedia Laboratory	2	S	10	APR 2011
01	CS1102	Computer Practice Laboratory / I	2	A	9	NOV 2008	06	CS1301	Communication and Soft Skills Laboratory	2	S	10	NOV 2011
01	GE1101	Engineering Practices Laboratory / I	2	A	9	NOV 2008	06	HS1310	Object Oriented Analysis and Design	4	D	7	NOV 2011
02	GE1102	Engineering Practices Laboratory / I	4	E	5	APR 2009	07	CS1401	Internet Computing	3	C	7	NOV 2011
02	GE1103	Basic Civil and Mechanical Engineering	4	B	8	APR 2009	07	IT1402	Middleware Technologies	3	C	7	NOV 2011
02	HS1151	Technical English II	3	C	6	APR 2009	07	CS1402	Total Quality Management	3	E	5	NOV 2011
02	HS1152	Engineering Physics II	3	C	7	APR 2009	07	MG1301	Wireless Network Systems	3	D	6	NOV 2011
02	HS1153	Engineering Chemistry II	4	E	5	APR 2009	07	CS1007	Data Warehousing and Mining	3	E	5	NOV 2011
02	MA1151	Mathematics II	2	A	9	APR 2009	07	CS1011	CASE Tools Laboratory	2	S	10	NOV 2011
02	CS1151	Computer Practice Laboratory / II	2	A	9	APR 2009	07	CS1401	Software Development Laboratory	3	D	6	APR 2012
02	EE1155	Circuits and Devices Laboratory	2	D	6	APR 2009	07	IT1405	Middleware Technologies Laboratory	3	D	6	APR 2012
02	HS1154	Physics and Chemistry Laboratory II	3	E	5	NOV 2009	08	CS1014	Network Protocols	5	B	8	APR 2012
02	CS1201	Data Structures	3	E	5	NOV 2009	08	CS1014	User Interface Design	5	S	7	APR 2012
03	CS1202	Object Oriented Programming	4	D	6	NOV 2009	08	CS1023	Software Quality Management	3	C	7	APR 2012
03	EC1206	Digital Principles and Systems Design	4	D	6	NOV 2009	08	CS1455	Project Work	6	S	10	APR 2012
03	EC1207	Analog and Digital Communication	4	C	7	NOV 2009	08						
03	HS1201	Environmental Science and Engineering	3	D	6	NOV 2009	08						
03	MA1201	Transforms and Partial Differential Equations	4	D	6	NOV 2012							
03	CS1203	Data Structures Laboratory	2	S	10	NOV 2009							
03	CS1204	Object Oriented Programming Laboratory	2	S	10	NOV 2009							
03	EC1208	Digital Laboratory	2	S	10	NOV 2009							
04	CS1251	Design and Analysis of Algorithms	4	E	5	APR 2010							
04	CS1252	Computer Organization and Architecture	4	E	5	APR 2010							
04	CS1253	Operating Systems	4	D	6	APR 2010							
04	CS1254	Database Management Systems	3	D	6	APR 2010							
04	EC1257	Microprocessors and Microcontrollers	3	E	5	APR 2010							
04	EC1258	Probability and Queuing Theory	3	C	7	APR 2010							
04	MA1252	Operating Systems Laboratory	4	C	7	APR 2010							
04	CS1255	Database Management Systems Laboratory	2	S	10	APR 2010							
04	CS1256	Microprocessors Laboratory	2	S	10	APR 2010							
05	CS1301	Software Engineering	3	C	7	NOV 2010							
05	CS1302	Computer Networks	3	C	7	NOV 2010							
05	CS1303	Theory of Computation	3	C	7	NOV 2010							
05	CS1304	System Software	4	B	8	NOV 2010							
05	CS1305	Visual Programming	4	E	5	NOV 2010							
05	MA1301	Discrete Mathematics	4	B	8	NOV 2010							
05	CS1306	Networks Laboratory	4	S	10	NOV 2010							
05	CS1307	System Software Laboratory	2	A	9	NOV 2010							
05	CS1308	Visual Programming Laboratory	2	A	9	NOV 2010							
06	CS1351	Artificial Intelligence	4	C	7	APR 2011							
06	CS1352	Principles of Compiler Design	4	C	7	APR 2011							

\*\*\* End of Statement \*\*\*  
**Cumulative Grade Point Average : 7.07**  
**Classification : FIRST CLASS**



SEM - Semester, C - Credits, LG - Letter Grade, GP - Grade Point

Range of Marks	90 - 100	80 - 89	70 - 79	60 - 69	55 - 59	50 - 54	< 50
Letter Grade	S	A	B	C	D	E	U
Grade Point	10	9	8	7	6	5	0

where  $G = \frac{\sum C_i GP_i}{\sum C_i}$

$C_i$  - is the credits assigned to the course  
 $GP_i$  - is the grade corresponding to the grade obtained for each course  
 $n$  - is number of all courses successfully cleared during all the semesters

Chennai - 600 025  
 Date : 12/03/2013

SIGNATURE OF THE STUDENT

CONTROLLER OF EXAMINATIONS

*(Handwritten Signature)*



# SAVEETHA ENGINEERING COLLEGE



www.saveetha.ac.in

Approved by AICTE | Affiliated to Anna University | Accredited by NBA

Saveetha Nagar, Thandalam, Chennai - 602 105. Ph.: 044 26811499 / 66726672. Email : principal@saveetha.ac.in

S.No.: 5931

Reg. No.: 212213405017

## TRANSFER CERTIFICATE

1. Name of the Student (in Block Letters) : S. KEERTHIGA
2. Date of Birth as entered in the Admission Register : 07-08-1990
3. Name of the Father / Mother / Guardian : N.K.V. SEKAR
4. Nationality, Religion : Indian, Hindu
5. Sex : Female
6. Community : OC / BC / MBC / SC / ST
7. Date of Admission in this College : 13-09-2013
8. Course, Year & Semester in which the Student was admitted : M.E - Computer Science & Engineering / Sep'2013 / I Semester.
9. Course, Year & Semester in which the Student was studying at the time of leaving : M.E. - Computer Science & Engineering / June 2015 / IV Semester.
10. Whether the student qualified for promotion to higher studies : Refer Mark Sheet.
11. Date on which the student actually left the College : 25/6/15
12. Character and Conduct of the Student : Good

College Seal

15 JUL 2015



R. Vukshith  
15/7/15

Principal  
PRINCIPAL

SAVEETHA ENGINEERING COLLEGE  
SAVEETHA NAGAR,  
THANDALAM, CHENNAI - 602 105.

Declaration by the Student

I hereby declare that the particulars recorded against Serial No. 1 to 7 are correct and that no change will be demanded by me in future.

Signature of the Student



# THENI KAMMAVAR SANGAM COLLEGE OF TECHNOLOGY

THENI ROAD, KODUVILARPATTI, PIN - 625 534, THENI DIST.

( Approved by AICTE and Affiliated to Anna University )

Email : tkscttheni@gmail.com Website : www.tkscte.in

Phone : 04546 - 250496, 250497

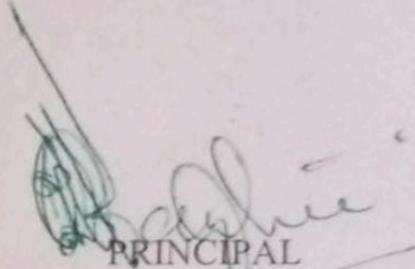
Fax : 04546 - 250498

Date: 08.12.2020

## CERTIFICATE

Ms.S.Keerthiga, is working in this institution from 13.02.2019 to till date as an Assistant Professor in Computer Science and Engineering Department.



  
PRINCIPAL  
Dr. D.NAGARATHINAM, M.E., Ph.D.,  
Principal  
Theni Kammavar Sangam  
College of Technology  
Koduvilarpatti, THENI - 625534

आयकर विभाग

INCOME TAX DEPARTMENT



भारत सरकार

GOVT. OF INDIA

KEERTHIGA

SEKAR

07/08/1990

Permanent Account Number

EUAPK4220E

Signature



31122016



இந்திய தேர்தல் ஆணையம்  
வாக்காளர் அடையாள அட்டை  
ELECTION COMMISSION OF INDIA  
IDENTITY CARD

NNH0712612



வாக்காளர் பெயர் : கீர்த்திகா

Elector's Name : Keerthika

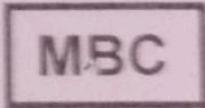
தந்தை பெயர் : சேகர்

Father's Name : SEkar

பாலினம் / Sex : பெண் / Female

பிறந்த தேதி / Date of Birth: 07/08/1990

R.Dis. 86 A/ dt

சான்றிதழ் எண் :  
Certificate No

1926369

மாவட்டக் குறியீடு எண் :  
District Codeவட்டக் குறியீடு எண் :  
Taluk Codeகிராமக் குறியீடு எண் :  
Village Code

2	9	
0	3	
0	0	8

சாதிச் சான்றிதழ்  
COMMUNITY CERTIFICATE

தேனி மாவட்டம் சீகண்டிபட்டி வட்டம்  
கோஜாணி கிராமம்/நகரம். திரு / திருமதி செல்வி  
செல்வன் கீர்த்திகா தகப்பனார்/கணவர்  
பெயர் சேகர்

கீர்த்தி - கோஜா கம்பளம்

வகுப்பைச் சார்ந்தவர். அரசு ஆணை நிலை எண் 28 பிற்பட்ட மற்றும் மிகவும் பிற்பட்ட பிரிவின் நலத்துறை நாள் 19-7-1994 வரிசை எண் 178 படி மிகவும் பிற்பட்ட பிரிவினைச் சார்ந்தவர் எனச் சான்றளிக்கப்படுகிறது.

This is to certify that Keerthiga Son / Daughter  
of Thiru. Sekar of Rajakani

Village / Town Aundipatty Taluk

Theni

District of the State of Tamil Nadu belongs to

Hindu - Raja Kambalam Community, which is recognised as a Most Backward Class as per Government Order (Manuscript Series) No. 28, Backward Classes and Most Backward Classes Welfare dated 19th July 1994, vide Serial No. 178

2. திரு / திருமதி / செல்வன் / செல்வி கீர்த்திகா  
என்பவரும் அவருடைய குடும்பத்தினரும் தமிழ்நாட்டில் தேனி  
மாவட்டத்தில் சீகண்டிபட்டி தகப்பனார்/கணவரின் கிராமத்தில் /  
நகரத்தில் வசித்து வருகிறார்கள் எனச் சான்றளிக்கப்படுகிறது.

2. It is certified that Thiru/Tmt/Sekar/Selvi Keerthiga and  
his/her family ordinarily reside(s) at Iakkampalatty Village/Town  
Aundipatty Taluk Theni District of Tamil Nadu

முத்திரை.  
Seal.



கையொப்பம்  
Signature

நாள்  
Date

தனி எழுத்துக்களில் பெயர்  
Name in Capital Letters

பதவிப் பெயர்  
Designation

தலைமையிடத்து துணை வட்டாட்சி  
ஆண்டிபட்டி

31/5/02

ANNEXURE-I

CERTIFICATE FROM THE ORGANISATION WHERE THE CANDIDATE IS EMPLOYED

Certified that Mr./Ms./Mrs. S. JEEERTHIGA is employed as Assistant Professor (Designation) in the Computer Science & Engineering (Department/Division Name) of Theni Kammavar Sangam College of Technology (Institution/Industry Name).

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

FOR FULL TIME:

The candidate will be sanctioned leave for the duration of the research programme and will be relieved from duty from \_\_\_\_\_ to \_\_\_\_\_ to undertake the full time research work in the University.

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: 09.12.2020

Signature of the Head of Organization with office seal



Dr. D. NAGARATHINAM, M.E., Ph.D.  
Principal  
Theni Kammavar Sangam  
College of Technology  
Koduvilappatti, THENI - 625534