



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

APPLICATION FOR ADMISSION TO Ph.D. PROGRAMMES

Date of Application:23-12-2020

Department	ELECTRICAL AND ELECTRONICS ENGINEERING	Application No.	202020179
Area of Research	HIGH VOLTAGE ENGINEERING	Research Mode	PART TIME

Name :BALASUBRAMANIAN A

Date of Birth / Age :27-05-1984 / 36 Years

Gender :MALE

Category :BC

e-Mail ID :balahv@gmail.com

Mobile :9788926308



A. Balahv

Father's/Husband's Name	ARUMUGAM K	Father's/Husband's Occupation	TEACHER
Family Income	2.5 LAKS	Residential Type	RURAL
Birth Place	MELANIKULI	Mother Tongue	TAMIL
Religion	HINDU	Martial Status	MARRIED
Aadhaar No.	460356841733	PAN No.	AQEPB9903H
Physically Challenged	NO	Type of Disability	-
Address for Communication: 5/50 SOUTH STREET UDAYARPALAYAM ARIYALUR DISTRICT TAMILNADU INDIA Pin-612903		Permenant Address: 5/50 SOUTH STREET UDAYARPALAYAM ARIYALUR DISTRICT TAMILNADU INDIA Pin-612903	

Qualification						
Degree	Discipline	College/university	Year Passed	AVG/CGPA	Class	Mode
B.E	EEE	ANNA UNIVERSITY/ AAM ENGINEERING COLLEGE	2005	65	I	REGULAR
M.E	HVE	COLLEGE OF ENGINEERING	2010	7.94	I	REGULAR

Experience					
Organization	Designation	Experience From	Experience TO	Work Nature	
ARASU ENGINEERING COLLEGE	ASSISTANT PROFESSOR	2010-06-11	2020-12-23	TEACHING	

Payment Details				
Transaction ID	Reference	Date of transaction	Amount	Status
202020179_201224111233	VSBI9589719701	24-12-2020	600	SUCCESS

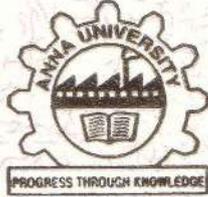
IOT BASED LEAKAGE CURRENT MONITORING IN METAL OXIDE SURGE ARRESTOR

In this research a remote system for continuous monitoring of leakage current and ground current in surge arrestor is proposed. Surge arrestors are installed on transmission and distribution line in sub stations between phase and earth, in order to improve the surge arrestors also the performance and reduce failure rate. The performance of surge arrestors depends on the insulating property of Zinc-Oxide (ZnO). The deterioration of the insulating property increases with the increase in leakage current in arrestor. This leakage current depends on applied voltage and temperature at the time of measurement. In earth to line voltage, arrestor won't behave as an insulator. The ZnO surge arrestor have high impedance and resulting leakage current with a peak value of few milli amperes.

During over voltage events the metal oxide surge arrestor limits the voltage to almost constant value, even if the discharge current increases extremely. This capability has been found to remain unchanged during its full life, but the insulation performance at operating voltage may subject to change. However, under extreme condition it may lead to an increase of the leakage current. This changes called degradation of metal oxide surge arrester. The third harmonic of the resistive leakage current is responsible to the degradation of ZnO surge arrestor.

Thus the total leakage current is the combination of resistive leakage current and capacitive leakage current. In normal life of an arrester, there is very little change in the capacitive current; whereas marginal change in resistive current is observed due to change in insulation property of arresters. The increase in resistive leakage current causes either by entering moisture in ZnO blocks or by premature ageing of the ZnO blocks. This resistive leakage current is in phase with the applied voltage. So it generates power loss in the form of heat generation. Thus, the leakage current in arresters is divided into capacitive and resistive component. The capacitive current component is predominant and resistive component is significantly smaller. A recent huge interest in Machine to Machine communication is known as the Internet of Things (IOT), to allow the possibility for autonomous devices to use Internet for exchanging the data. Here, the design and the development for continuous monitoring of leakage currents and ground currents in high voltage surge arrestor is proposed using internet of thing concept.

Anna University



Reg. No.200831225/RG

The Syndicate of the Anna University hereby makes known that **BALASUBRAMANIAN A** has been admitted to the **Degree of Master of Engineering in HIGH VOLTAGE ENGINEERING** under the Faculty of Electrical Engineering, having completed the prescribed programme of study through the **College of Engineering Guindy Campus** of this University 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 **APRIL 2010**.

Given under the Seal of the University



Chennai 600 025

India

December 2010

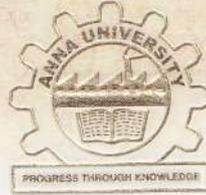
GPA34320004

Controller of Examinations

Registrar

Vice-Chancellor

4879821E1A7DA76073A7D1415D40F28



The Syndicate of the Anna University hereby makes known that
BALASUBRAMANIAN A *has been admitted to the* **DEGREE OF**
BACHELOR OF ENGINEERING *in* **Electrical and Electronics**
Engineering *having satisfactorily completed the prescribed programme of study*
and having been certified by duly appointed examiners to be qualified to
receive the same and having been placed by them in the **First Class** *at the*
Examination held in **APRIL 2005.**

Given under the Seal of the University

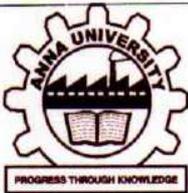


Chennai 600 025
India
November 2005

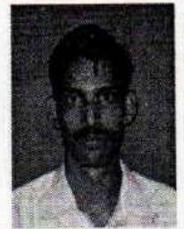
80301105006

K. J. Suman
Registrar

Elliswanattu
Vice-Chancellor



ANNA UNIVERSITY CHENNAI
CHENNAI - 600 025
COLLEGE OF ENGINEERING, GUINDY CAMPUS

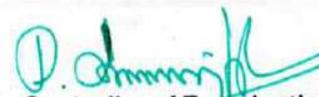


Name BALASUBRAMANIAN.A ✓ **Register No.** 200831225 ✓
Degree M.E **Branch** HIGH VOLTAGE ENGINEERING **Regulation** 2005
Department of Study ELECTRICAL AND ELECTRONICS ENGINEERING **Mode** FULL TIME

CODE	TITLE	C	G	M/Y	CODE	TITLE	C	G	M/Y
SEMESTER 1					SEMESTER 2				
ET074	DIGITAL SIGNAL PROCESSING	3	C	N08	HV681	HIGH VOLTAGE GENERATION AND MEASUREMENT	3	B	A09
HV671	CAD OF ELECTRICAL APPARATUS	4	C	N08	HV682	DESIGN&MODELLING OF H.V POWER APPARATUS	3	B	A09
HV672	INSULATION TECHNOLOGY	3	B	N08	HV683	HIGH VOLTAGE SWITCHGEAR	3	A	A09
HV673	ELECTRICAL TRANSIENTS IN POWER SYSTEMS	3	C	N08	HV684	EHV POWER TRANSMISSION	3	A	A09
MA308	APP. MATHEMATICS FOR ELECTRICAL ENGRS.	4	E	N08	HV685	HIGH VOLTAGE LABORATORY	1	B	A09
PS671	POWER ELECTRONICS IN POWER SYSTEMS	3	B	N08	PS071	INTELLIGENT CONTROLLERS	3	B	A09
					PS074	POWER QUALITY	3	E	A09
SEMESTER 3					SEMESTER 4				
HV071	HI. VOLTAGE DIRECT CURRENT TRANSMISSION	3	B	N09	HV781	PROJECT WORK PHASE - II	12	A	A10
HV072	HIGH VOLTAGE TESTING TECHNIQUES	3	B	N09					
HV075	ADVANCED TOPICS IN HIGH VOLTAGE Engg.	3	A	N09					
HV771	PROJECT WORK PHASE - I	6	A	N09					



Semester Wise Grade Point Average										
1	2	3	4	5	6	7	8	9	10	
6.9	7.84	8.6	9							
Credits Earned				66	CGPA				7.94	
Date of Issue				04-AUG-10						

for 
Controller of Examinations

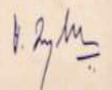


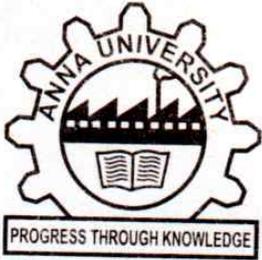
NAME OF THE CANDIDATE							REGISTER NO.						
COLLEGE OF STUDY							MONTH & YEAR OF LAST APPEARANCE						
PROGRAMME & BRANCH							REGULATIONS						
SEM.	SUBJECT CODE	SUBJECT TITLE	MAX	MIN	MARKS SECURED	MONTH & YEAR OF PASSING	SEM.	SUBJECT CODE	SUBJECT TITLE	MAX	MIN	MARKS SECURED	MONTH & YEAR OF PASSING
	BALASUBRAMANIAN A							80301105006					
	803: Anjalai Ammal Mahalingam Engineering College							Apr 2005					
	B.E. Electrical and Electronics Engineering							2001					
01	ER11	English - I	100	50	060	NOV 2001	05	EE335	Transmission and Distribution	100	50	055	NOV 2003
01	ER12	Mathematics - I	100	50	074	NOV 2001	05	EE336	Design of Electrical Apparatus	100	50	064	NOV 2004
01	ER13	Physical Sciences - I (Applied Physics, Applied Chemistry)	100	50	079	NOV 2001	05	EE341	Control Systems Laboratory	100	50	082	NOV 2003
01	ER14	Basic Electrical & Electronics Engineering	100	50	071	NOV 2001	05	EE342	Power Electronics Lab	100	50	075	NOV 2003
01	ER15	Engineering Mechanics - I	100	50	073	NOV 2001	06	EE337	Digital Signal Processing	100	50	057	APR 2004
01	ER16	Engineering Drawing & Graphics - I	100	50	078	NOV 2001	06	EE338	Protection and Switchgear	100	50	061	APR 2004
02	ER21	English - II	100	50	080	APR 2002	06	EE339	Power System Analysis	100	50	051	NOV 2004
02	ER22	Mathematics - II	100	50	078	APR 2002	06	EE340	Microprocessor and Applications	100	50	056	APR 2004
02	ER23	Physical Sciences - II (Applied Physics, Applied Chemistry)	100	50	064	APR 2002	06	EE350	Computer Architecture	100	50	071	APR 2004
02	ER24	Basic Civil & Mechanical Engineering	100	50	063	APR 2002	06	MG331	Principles of Management	100	50	058	APR 2004
02	ER25	Engineering Mechanics - II	100	50	070	APR 2002	06	EE343	Measurement and Instrumentation Laboratory	100	50	083	APR 2004
02	ER26	Engineering Drawing & Graphics - II	100	50	054	APR 2002	06	EE344	IC and Microprocessor Laboratory	100	50	070	APR 2004
02	ER27P	Physical Science Lab (Physics & Chemistry Lab)	100	50	084	APR 2002	07	CE071	Principles of Environmental Science and Engineering	100	50	064	NOV 2004
02	ER28P	Computer Lab	100	50	083	APR 2002	07	EE431	Power System Control	100	50	067	NOV 2004
02	ER29P	Workshop	100	50	083	APR 2002	07	EE432	Solid State Drives	100	50	053	NOV 2004
03	CE261	Fluid Mechanics	100	50	056	NOV 2002	07	EE433	High Voltage Engineering	100	50	078	NOV 2004
03	EC253	Electron Devices	100	50	065	NOV 2003	07	GE035	Professional Ethics	100	50	052	NOV 2004
03	EE231	Electromagnetic Theory	100	50	079	NOV 2002	07	MG431	Engineering Economics and Financial Accounting	100	50	056	NOV 2004
03	EE232	Electrical Machines - I	100	50	066	NOV 2003	07	EE435	Power System Simulation Lab	100	50	070	NOV 2004
03	MA231	Mathematics - III	100	50	051	APR 2003	07	EE439	Comprehension	100	50	076	NOV 2004
03	ME251	Thermodynamics	100	50	053	NOV 2002	08	GE406	Total Quality Management	100	50	065	APR 2005
03	PH231	Material Science	100	50	071	NOV 2002	08	EE035	EHV AC and DC Transmission Engineering	100	50	065	APR 2005
03	EE241	Electrical Machines Lab - I	100	50	070	NOV 2002	08	EE041	Electric Energy Utilisation and Conservation	100	50	073	APR 2005
04	EC254	Electronic Circuits	100	50	050	NOV 2003	08	EE444	Project Work	200	100	163	APR 2005
04	EC256	Communication Engineering	100	50	067	APR 2003	***End of Statement***						
04	EE234	Electrical Machines - II	100	50	058	APR 2003	Classification : FIRST CLASS						
04	EE235	Control Systems	100	50	056	APR 2003	Total Marks (from 3rd to 8th semester) : 2911 / 4500						
04	EE236	Network Analysis and Synthesis	100	50	051	NOV 2004	Percentage (rounded to nearest integer) : 65						
04	EE237	Object Oriented Programming	100	50	063	APR 2004							
04	EC258	Electronics Laboratory	100	50	081	APR 2003							
04	EE242	Electrical Machines Lab-II	100	50	085	APR 2003							
05	EE331	Measurements and Instrumentation	100	50	055	NOV 2003							
05	EE332	Power Electronics	100	50	060	NOV 2003							
05	EE333	Digital Systems	100	50	054	APR 2004							
05	EE334	Integrated Circuits	100	50	055	NOV 2003							

Medium of Instruction : ENGLISH

Chennai - 600 025.

Date : 29/06/2005


 Controller of Examinations



ANNA UNIVERSITY CHENNAI
COLLEGE OF ENGINEERING GUINDY CAMPUS
CHENNAI 600 025.

TRANSFER CUM CONDUCT CERTIFICATE

No 1297

Date ..02.11.2010

1. Name of the Student : BALASUBRAMANIAN A
2. Name of the Father : ARUMUGAM K
3. Name of the Mother : VASANTHA A
4. Date of Birth (as entered in the University records) : 27.05.1984 (NINETEEN EIGHTY FOUR)
5. Date of admission : August-2008
6. Degree to which the student was admitted : M.E. HIGH VOLTAGE ENGINEERING
7. Duration of Degree : 4 SEMESTERS
8. Semester studied at the time of leaving : 4th SEMESTER
9. Whether completed the Degree : YES
10. Actual date of leaving : April-2010
11. Whether paid all the fees and Cleared the dues to the University : YES
12. Conduct and Character : GOOD



[Handwritten Signature]
21110

DEAN

College of Engineering Guindy Campus
Anna University Chennai, Chennai - 25



Arasu Engineering College

(Approved by AICTE & Affiliated to Anna University)

Chennai Main Road, Kumbakonam - 612 501.

PH : (0435) 3299999, 6533333 FAX : (0435) 2433558

Website : www.aec.org.in E-mail : arasuengg@sancharnet.in



An ISO 9001 : 2000 Certified Institution

R. Thirunavukkarasu, M.A.,

Founder-Chairman

Est./EEE /2009/011

June 7, 2010

Mr A. Balasubramanian
5/50. South Street
Melankuli (Post)
Ariyalur (Dist) -612 903

Dear Sir,

Sub. : Appointment order for the post of Asst Professor in the Department of **Electrical and Electronics Engineering** - Reg.

With reference to your application and the subsequent interview you had with us on 07.06.2010, we are pleased to appoint you, for the post of Assistant Professor in the Department of **Electrical and Electronics Engineering** in this institution.

You are required to convey your acceptance immediately, and join duty **on or before 14.06.2010.**

You will be on probation for a period of 2 (two) years from the date of joining. In this connection, you will have to give an undertaking in your joining report, to the effect that you will work in this institution as a faculty, for a minimum period of 2 (two) years without break.

You will not be permitted to leave the institution in the middle of the academic year, unless you are sponsored by the institution for higher studies etc. You will be relieved, on request, only at the end of the academic year. However, even for leaving the institution at the end of the academic year, you are required to give three-month notice (in the month of March) or three month salary.

Further you are requested to submit the following original certificates/documents.

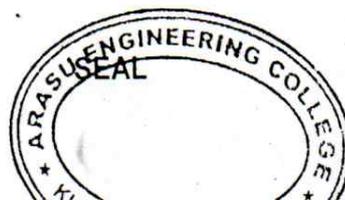
- B.E./M.E. Provisional / Degree Certificate
- Community Certificate – for statistical purpose
- T.C. from last institution
- 10th Mark Sheet – Age Proof
- Experience Certificate

Note: As per AICTE and University norms, even though the minimum eligibility is a UG degree, the desirable eligibility is PG degree in relevant discipline. Accordingly, you are required to give an undertaking to the effect that you would complete your PG degree within Three years.

The receipt of the appointment order may be acknowledged and the acceptance letter be sent by return of post.

Copy to:

1. Principal.
2. Establishment Section.



R. Thirunavukkarasu
CHAIRMAN

आयकर विभाग

INCOME TAX DEPARTMENT



भारत सरकार

GOVT. OF INDIA

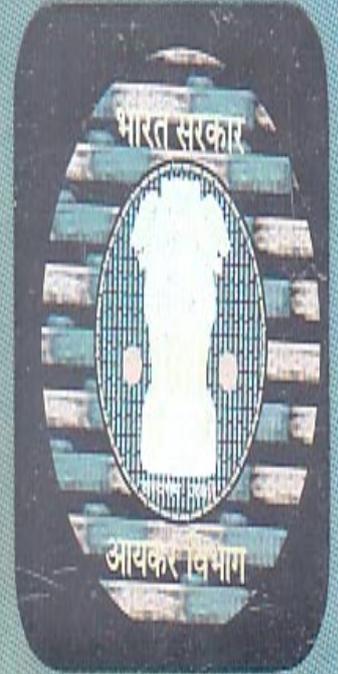
A BALASUBRAMANIAN

ARUMUGAM

27/05/1984

Permanent Account Number

AQEPB9903H




Signature



India Driving Licence(Tamilnadu)

Form 7

DOI 14/12/2010

D.L.No : TN61 20100003466
Name : BALASUBRAMANIYAN
S/D/W of : ARUMUGAM
Address :
5/27 A, SOUTH ST, MELANIKUZH, UDAYARPALAYAM TK, ARIYALUR DT.
Temp. Addr:



D.O.B. : 27/05/1984 B.G. :

Punishments:

Licensed to drive throughout India, vehicles of the following descriptions
M/CYCL. WG 14/12/2010 TN61

Non-Transport Vch. Valid upto 13/12/2030



A. Subramanian
Signature/L. T. I
of the Holder

G. Srinivasan
Asst Licensing Authority
(RTO, Ariyalur)
14/12/2010

R.Dis.....324/91

dt. 22.6.99

BC

சான்றிதழ் எண் :
Certificate No

2650317

மாவட்டக் குறியீடு எண் :
District Code

23

வட்டக் குறியீடு எண் :
Taluk Code

06

கிராமக் குறியீடு எண் :
Village Code

16-2

சாதிச் சான்றிதழ் COMMUNITY CERTIFICATE

உயர்ப்பாதி மாவட்டம் கையூர்மணிய வட்டம்
வந்தூரை போலீஸ் கிராமம்/நகரம், திரு./திருமதி/செல்வி/
செல்வன் பாலகங்கலிம் தகப்பனார்/கணவர்
பெயர் கந்தசேகர்
கந்தசேகர்

வகுப்பைச் சார்ந்தவர், அரசு ஆணை நிலை எண். 28 பிற்பட்ட மற்றும்
மிகவும் பிற்பட்ட பிரிவின் நலத்துறை நாள் 19-7-1994 வரிசை எண் 39 படி,
பிற்பட்ட பிரிவினைச் சார்ந்தவர் எனச் சான்றளிக்கப்படுகிறது.

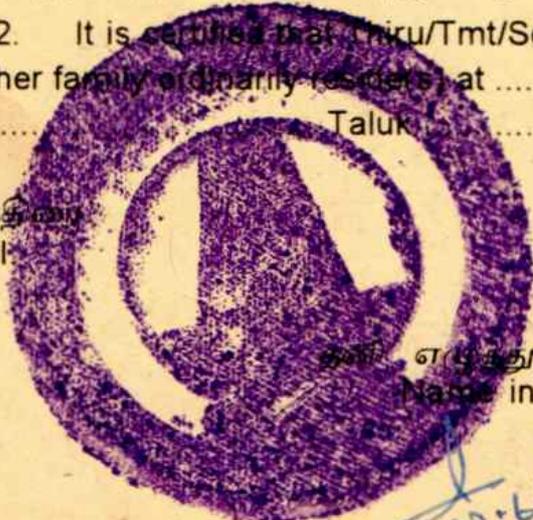
This is to certify that..... Son / Daughter
of Thiru..... of.....

..... Village / Town,..... Taluk.....

..... District of the State of Tamil Nadu belongs to
..... Community, which is recognised as a
Backward Class as per Government Order (Manuscript series) No. 28, Backward
Classes and Most Backward Classes Welfare dated 19th July 1994.
vide Serial No.....

2. திரு/திருமதி/செல்வன்/செல்வி.....
என்பவரும் அவருடைய குடும்பத்தினரும் தமிழ்நாட்டில் கையூர்மணிய
மாவட்டத்தில் கையூர்மணிய வட்டத்தில் வந்தூரை
கிராமத்தில்/நகரத்தில் வசித்து வருகிறார்கள் எனச் சான்றளிக்கப்படுகிறது.

2. It is certified that Thiru/Tmt/Selvan/Selvi..... and
his/her family ordinarily resides, at..... Village/Town
..... Taluk..... District of Tamil Nadu.

முத்திரை
Sealகையொப்பம் :
Signatureநாள் :
Dateகண் எழுத்துக்களில் பெயர் :
Name in Capital Lettersபதவிப் பெயர் :
Designation

22.6.99
கையூர்மணிய வட்டம்
வந்தூரை
பெயர்: கந்தசேகர்

ANNEXURE-I

CERTIFICATE FROM THE ORGANISATION WHERE THE CANDIDATE IS EMPLOYED

Certified that Mr./Ms./Mrs. A. BALASUBRAMANIAN is employed as Assistant Professor (Designation) in the Electrical and Electronics Engineering (Department/Division Name) of Arasu Engineering College (Institution/Industry Name).

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

FOR FULL TIME:

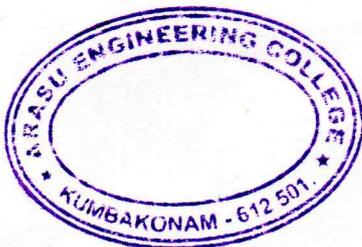
The candidate will be sanctioned leave for the duration of the research programme and will be relieved from duty from _____ to _____ to undertake the full time research work in the University.

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: 23.12.2020

Signature of the Head of Organization with office seal



Dr.T.Balamurugan,ME.,Ph.D.,
Principal
Arasu Engineering College
Kumbakonam - 612 501