



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

APPLICATION FOR ADMISSION TO Ph.D. PROGRAMMES

Date of Application:25-06-2020

Department	COMPUTER SCIENCE AND ENGINEERING	Application No.	20200133
Area of Research	MACHINE LEARNING	Research Mode	PART TIME

Name :G.JANANI ALIAS PANDEESWARI

Date of Birth / Age :17-01-1989 / 31 Years

Gender :FEMALE

Category :BC

e-Mail ID :er.gjanani@gmail.com

Mobile :8870068068



Father's/Husband's Name	G.GANESH KUMAR	Father's/Husband's Occupation	BUSINESS
Family Income	2,00000	Residential Type	RURAL
Birth Place	DINDIGUL	Mother Tongue	TAMIL
Religion	HINDU	Martial Status	MARRIED
Aadhaar No.	250166644256	PAN No.	BCMPJ1312E
Physically Challenged	NO	Type of Disability	-
Address for Communication: 26 TREASURY COLONY DINDIGUL DINDIGUL DISTRICT TAMIL NADU INDIA Pin-624001		Permenant Address: 26 TREASURY COLONY DINDIGUL DINDIGUL DISTRICT TAMIL NADU INDIA Pin-624001	

Qualification						
Degree	Discipline	College/university	Year Passed	AVG/CGPA	Class	Mode
M.E	CSE	RVS EDUCATIONAL TRUST GROUP OF INSTITUTION	2015	8.25/10	I	REGULAR
B.E	CSE	KCE	2009	76	I	REGULAR

Experience				
Organization	Designation	Experience From	Experience TO	Work Nature
RVS EDUCATIONAL TRUST GROUP OF INSTITUTION	ASSISTANT PROFESSOR	2018-06-04	1970-01-01	TEACHING
SSMIET	ASSISTANT PROFESSOR	2017-07-04	2018-05-31	TEACHING

Payment Details				
Transaction ID	Reference	Date of transaction	Amount	Status
20200133_200630153419	SUR28947558070	30-06-2020	600	SUCCESS

DETECTION OF IOT CYBER ATTACK USING MACHINE LEARNING

Internet of Things (IoT) is a new paradigm that integrates the Internet and physical objects belonging to different domains such as **home automation**, industrial process, human health and environmental monitoring. The number of IoT devices is expected to reach 50 Billion by 2023. Various smart city applications connect enormous IoT devices to real-world objects, which indeed have very important benefits to urban life. However, the massive number of IoT devices over heterogeneous variety types of services, technologies, devices, and protocols (e.g. Wireless, Wired, Satellite, Cellular, Bluetooth, etc.) leads to the complexity of managing future IoT networks. Therefore, the network traffic of a smart city via IoT systems is growing exponentially and introducing new cyber security challenges since these IoT devices are being connected to sensors that are directly connected to massive cloud servers. These cyber threats can obtain unauthorized access to the IoT devices without the knowledge of either the eligible user or administrator. In order to mitigate these cyber attacks, the developers need to enhance new techniques for detecting infected IoT devices.

Cyber Security on IoT introduces some significant challenges:

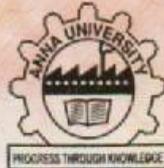
- Data collected are very sensitive. Most of the times they capture personal data and/or business critical data. Privacy is very important
- Each device generates data at scale. But the device has constraints on memory, computation and battery life. Connecting each device to the cloud reduces the life of the device.

This calls for a new paradigm in Machine Learning that exhibits the following features:

- Data should not be moved out of the device and/or network
- The Machine Learning models should be privacy-preserving

The machine learning algorithms can be used are Logistic Regression (LR), Support Vector Machine (SVM), Decision Tree (DT), Random Forest (RF), and Artificial Neural Network (ANN). Anomaly detection is the identification of rare items, events or observations which raise suspicions by differing significantly from the majority of the data. Anomaly detection is a class of unsupervised machine learning models that identifies anomalies in network data. In cyber security, anomalies are flagged as a potential threat. To address the IoT cyber security threats in a smart city, we propose an Anomaly Detection IoT (AD-IoT) system, which is an intelligent anomaly detection based on Random Forest machine learning algorithm. The proposed solution can effectively detect compromised IoT devices at distributed fog nodes.

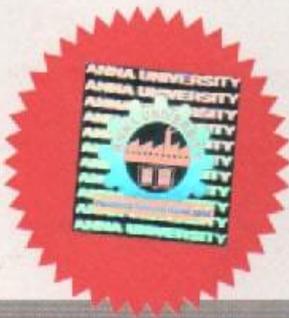
Anna University



Reg.No. 921413405005/RG

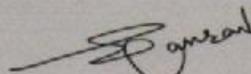
The Syndicate of the Anna University hereby makes known that
JANANI ALIAS PANDEESWARI G *has been admitted to the* **DEGREE OF MASTER OF ENGINEERING** *in* **COMPUTER SCIENCE AND ENGINEERING** *under the Faculty of Information and Communication Engineering, having completed the prescribed programme of 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** .

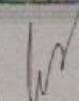
Given under the Seal of the University



Chennai 600 025
India
January 2016


Controller of Examinations


Registrar


Vice-Chancellor



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

J107198639619G

Folio No. AUY11719286



NAME OF THE CANDIDATE		JANANI ALIAS PANDEESWARI G			REGISTER NO.	921413405005
DATE OF BIRTH	17-JAN-89	GENDER	FEMALE	MONTH & YEAR OF LAST APPEARANCE	JUN 2015	
COLLEGE OF STUDY	R.V.S. EDUCATIONAL TRUST'S GROUP OF INSTITUTION			REGULATIONS	2013	
PROGRAMME & SPECIALIZATION	M.E. Computer Science and Engineering					

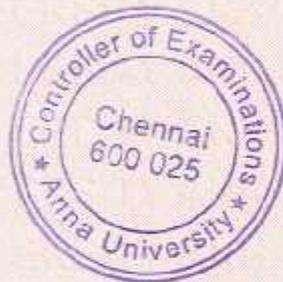
SEM. NO.	COURSE CODE	COURSE TITLE	CREDITS	LETTER GRADE	GRADE POINT	MONTH & YEAR OF PASSING
01	CP7101	Design and Management of Computer Networks	3	D	6	JAN 2014
01	CP7102	Advanced Data Structures and Algorithms	3	B	8	JAN 2014
01	CP7103	Multicore Architectures	3	C	7	JAN 2014
01	MA7155	Applied Probability and Statistics	4	B	8	JAN 2014
01	NE7002	Mobile and Pervasive Computing	3	D	6	JAN 2014
01	SE7103	Formal Models of Software Systems	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	B	8	JUN 2014
02	CP7202	Advanced Databases	3	C	7	JUN 2014
02	CP7203	Principles of Programming Languages	3	A	9	JUN 2014
02	CP7204	Advanced Operating Systems	3	A	9	JUN 2014
02	IF7202	Cloud Computing	3	D	6	JUN 2014
02	NE7202	Network and Information Security	3	B	8	JUN 2014
02	CP7211	Advanced Databases Laboratory	2	S	10	JUN 2014
02	CP7212	Case Study - Operating Systems Design (Team Work)	1	S	10	JUN 2014
03	CP7301	Software Process and Project Management	4	B	8	NOV 2014
03	CP7022	Software Design	3	C	7	NOV 2014
03	CP7026	Software Quality Assurance	3	B	8	NOV 2014
03	CP7031	Compiler Optimization Techniques	3	B	8	NOV 2014
03	CP7311	Project Work (Phase I)	6	A	9	NOV 2014
04	CP7411	Project Work (Phase II)	12	S	10	JUN 2015

*** End of Statement ***

Cumulative Grade Point Average : 8.24

Classification : FIRST CLASS

PROGRESS THROUGH KNOWLEDGE



Medium of Instruction : ENGLISH

Chennai - 25
Date: 20/07/2015

SIGNATURE OF THE STUDENT



[Handwritten Signature]

CONTROLLER OF EXAMINATIONS



ANNA UNIVERSITY, CHENNAI - 25
M.E. DEGREE EXAMINATIONS
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PROGRAMME & SPECIALIZATION	M.E. Computer Science and Engineering					

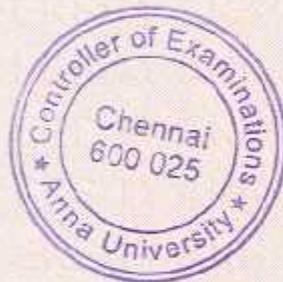
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01	CP7102	Advanced Data Structures and Algorithms	3	B	8	JAN 2014
01	CP7103	Multicore Architectures	3	C	7	JAN 2014
01	MA7155	Applied Probability and Statistics	4	B	8	JAN 2014
01	NE7002	Mobile and Pervasive Computing	3	D	6	JAN 2014
01	SE7103	Formal Models of Software Systems	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	B	8	JUN 2014
02	CP7202	Advanced Databases	3	C	7	JUN 2014
02	CP7203	Principles of Programming Languages	3	A	9	JUN 2014
02	CP7204	Advanced Operating Systems	3	A	9	JUN 2014
02	IF7202	Cloud Computing	3	D	6	JUN 2014
02	NE7202	Network and Information Security	3	B	8	JUN 2014
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PROGRESS THROUGH KNOWLEDGE



Medium of Instruction : ENGLISH

Chennai - 25
Date: 20/07/2015

SIGNATURE OF THE STUDENT



[Signature]

CONTROLLER OF EXAMINATIONS



SSM Institute of Engineering and Technology
Dindigul - 624 002

www.ssmiet.ac.in

Dr.M.Saravanan,B.E.,M.E.,Ph.D
Principal

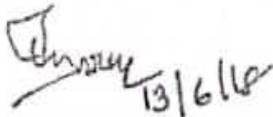
SSMIET/SC/045/2018

Date:13.06.2018

SERVICE CERTIFICATE

This is to certify that **Ms.G.Janani @ Pandeeswari** has been associated with us as Assistant Professor in the Department of Placement and Training from 04.07.2017 to 31.05.2018. She drew a consolidated salary of Rs.12,500/- (Rupees Twelve thousand five hundred per month)

During her service at our institution, her conduct was good.


13/6/18
PRINCIPAL

Dr.M.Saravanan M.E.,Ph.D.,
Principal
SSM Institute of Engineering and Technology,
Kudikuppatti Village, Sindalagundu (Po),
Dindigul-624 002



आयकर विभाग

INCOME TAX DEPARTMENT



भारत सरकार

GOVT. OF INDIA

G JANANI PANDEESWARI

GOVINDARAJ

17/01/1989

Permanent Account Number

BCMPJ1321E

Signature



आयकर विभाग

INCOME TAX DEPARTMENT



भारत सरकार

GOVT. OF INDIA

G JANANI PANDEESWARI

GOVINDARAJ

17/01/1989

Permanent Account Number

BCMPJ1321E

Signature



R.Dis. 41874/2004 dt 20.8.04

BC



சான்றிதழ் எண் :
Certificate No. :

6008902

மாவட்டக் குறியீடு எண் :
District Code :
வட்டக் குறியீடு எண் :
Taluk Code :
கிராமக் குறியீடு எண் :
Village Code :

13
01
049

சாதிச் சான்றிதழ்
COMMUNITY CERTIFICATE

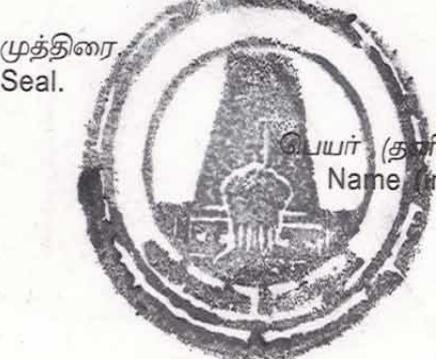
திண்டுக்கல் மாவட்டம் திண்டுக்கல் வட்டம்

அடியனாத்தி கிராமம்/நகரம், திரு. / திருமதி / செல்வி /
கெல்வன் G. ஜானி @ பாண்டேசுமரி தகப்பனார்/கணவர்
பெயர் R. கோவிந்தராஜ்
இந்தி - செங்குந்தி
வகுப்பைச் சார்ந்தவர், அரசு ஆணை நிலை எண் 28, பிற்பட்ட மற்றும்
மிகவும் பிற்பட்ட பிரிவின் நலத் துறை, நாள் 19-7-1994 வரிசை எண் 039
பிற்பட்ட பிரிவினைச் சார்ந்தவர், எனச் சான்றளிக்கப்படுகிறது.

This is to certify that G. Janani @ Pandeesumari Daughter of
Thiru R. Govindaraj of Adiyamanutthu
Village / Town Dindigul Taluk
Dindigul District of the State of Tamil Nadu belongs to
Hindu Sengunkar Community, which is recognised as
a Backward Class as per Government Order (Ms.) No. 28, Backward Classes
and Most Backward Classes Welfare dated 19th July 1994
vide Serial No. 039

2. திரு. / திருமதி / செல்வன் / செல்வி G. ஜானி @ பாண்டேசுமரி
என்பவரும் அவருடைய குடும்பத்தினரும் தமிழ்நாட்டில் திண்டுக்கல்
மாவட்டத்தில் திண்டுக்கல் வட்டத்தில் அடியனாத்தி
கிராமத்தில் / நகரத்தில் வசித்து வருகிறார்கள் எனச் சான்றளிக்கப்படுகிறது.

2. It is certified that Thiru/Tmt./Selvan/Selvi G. Janani @ Pandeesumari
his/her family ordinarily reside(s) at Adiyamanutthu Village/
Town Dindigul Taluk Dindigul District of
Tamil Nadu.



கையொப்பம் :
Signature :
நாள் : 20-8-04
Date : தலைமையிடத்தி
துணை வட்டாட்சியர்
வட்ட அலுவலகம்
திண்டுக்கல்
Designation :

முத்திரை
Seal.

பெயர் (தனி எழுத்துக்களில்)
Name (in Capital Letters)

Designation