### Mount Zion College of Engineering and Technology – Pudukkottai

# e-Yantra lab

e-Yantra is a project initiated by **IIT-Bombay** sponsored by the **Ministry of Human Resource Development** under National Mission in Education through **Information and Communication Technology**. The mission of e-yantra project is to enable students and staff of Technical Institutions to take India's economy to a greater height by 2020 with the help of technological innovations.

Our Management of Mount Zion College of Engineering and Technology has the mission to grow a rich eco-system of ideas and applications; it encourages faculty members and students' research activities in Robotics, Automation and Embedded system platform. Our Management is very keen in establishing many research labs in our campus and funded 5 Lakhs to establish Robotics and embedded systems lab in our college and aims to create the next generation of embedded system engineers with a practical outlook to provide practical solutions to real world problems.

Our faculty members have attended two days workshop and got trained through Faceto-face training in embedded systems and Micro-controller programming related to Robotics. Our Team Leader and members are also involved actively in the Task Based Training comprising of a total of six different tasks which is an endeavor to train teachers in Embedded Systems and Robotics through hands-on experiments which is given by IIT Bombay on Firebird V robot. Team members successfully completed all the six tasks which dealt with the challenge theme of IIT Bombay and also got selected for TBT 2015 Challenge.

In this regard, eLSI lab inauguration (E- yantra Lab Set up Initiatives) and Valedictory function to establish ROBOTICS was held on 2<sup>nd</sup> March , 2016 through Online session by IIT Bombay e-Yantra Experts. Our honourable director inaugurated the lab and our respected principal delivered the felicitation address. TBT 2015 Challenge has been completed by our faculty for the competition to be held at IITBombay.

# **Inauguration of Centre for Robotics**



# e-Yantra lab setup





### **TBT 2015 Challenge in IIT Bombay**



Our Faculty members Ms. Ajitha, AP/CSE, Ms. Pandikumari, AP/Mech, Mr. Muthukumar, AP/EEE, and Mr. Vijay Nagaraj, AP/ECE received certificate for TBT 2015 Challenge in IIT Bombay.

### **TBT 2015 Challenge in IIT Bombay**



Our Faculty members Ms. Ajitha, AP/CSE, Ms. Pandikumari, AP/Mech, Mr. Muthukumar, AP/EEE, and Mr. Vijay Nagaraj, AP/ECE and our students Mr. Pandiganesh – B.E., EEE, Mr. Balaji, B.E., ECE, Mr. Ajith Krishna B.E., CSE, Mr. Aldrin B.E., CSE received certificate for TBT 2015 Challenge in IIT Bombay.

# **Qyantra** CENTRE FOR ROBOTICS

# ITEMS IN THE L&B

Sr No.	Equipment
1	FireBird V 2560
2	Spark V Robot
3	Fire Bird V P89V51RD2 adapter card
4	Fire Bird V LPC2148 adapter card
5	Zigbee Modules 100m range
6	Zigbee Modules Adapter
7	AVRISP mkII / xpII USB Programmer
8	Two Axis Camera pod with Wireless Camera
	USB TV Tuner for Interfacing wireless camera with Laptop (supports
9	windows 8)
10	Kinect (Xbox) Sensors
11	Android devices (e.g. Samsung Galaxy Star Pro)
12	Raspberry-Pi
13	Metal-gear Servo Motors
14	Sharp GP2D120C infrared range sensor (4cm to 30cm)
15	Sharp GP2Y0A21YK0F infrared range sensor (10cm to 80cm)
16	Sharp GP2Y0A02YK infrared range sensor (20cm to 150cm)
17	SharpGP2Y0A710K0F infrared range sensor(100cm to500cm)
18	Maxbotix ultrasonic range sensor
19	L3G4200 3 axis digital gyroscope
20	LSM303 3 axis digital accelerometer and 3 axis magnetometer
21	GPS receiver
22	Gyroscope, accelerometer and GPS interfacing module for the robot
23	Servo Motor Based Gripper kit for the Fire Bird V robot
24	Raspberry pi

# Projects developed in the lab:

# Firebird project list:

SI	NAME OF THE PROJECT	NAME OF THE	MONTH	DEPARTMENT
NO		STUDENT	& YEAR	
1	VALET PARKING ROBOT	ALDRIN AJITH KRISHNA HARIKRISHNAN DAVID MUTHUSELVAN	MARCH 2016	CSE
2	SURVEILLANCE AND TARGET MANAGEMENT USING ROBOTS	BALAJI M. KARTHICK MANIKANDAN V. BENEDICT	MARCH 2017	ECE
3	AUTOMATED SEED SOWING AND PEST DETECTION OF PEST USING FIREBIRD V ROBOT	SANTHIYA V. RASIKA R. DHANALAKSHMI K. NIVETHA P.	MARCH 2017	ECE
4	HAND GESTURE BASED HOME AUTOMATION USING OPEN CV AND RPI	ADHARSH CHIDAMBARAM RAJESWARAN	MARCH 2017	EEE
5	CHILD SECURE SYSTEM FOR OPEN BOREWELLS	SHARON ELSA THOMAS SENTHAMIL SELVI ANBARASI	MARCH 2018	CSE
6	AUTONOMOUS ROBOTIC WHEEL CHAIR CONTROLLER FOR PHYSICALLY CHALLENGED PERSONS	MEENALOSINI V. MEENATCHI S.	MARCH 2018	ECE
7	PHARMACY ASSISTANT ROBOT	DHINESH BABU K. DHINESH KUMAR K. NAGARAJAN S. SIRAJUDEEN J.	MARCH 2018	CSE
8	HOME AUTOMATION USING RASPBERRY PI AND ARDUINO	AJITH KRISHNA S HARIKRISHNAN S BHARATH N GANESH S	MARCH 2018	CSE
9	MILITARY ASSISTANT BOT	MUTHUKUMAR VASANTHAKUMAR VASANTHA KUMAR TAMIL SELVAN	MARCH 2019	CSE

# eYantra project idea competition:

• Pharmacy assistant robot was selected in eYantra project idea competition in second round

# eYantra Mentor login project idea competition:

/24/2019	e-Yantra Ideas Competition - 2018 Mentor Login Details - soorya.7204@g	gmail.com - Gmail
M	eyantra	
~	to me	
3,921		~~~~
	<b>EUgantra</b>	( <u>)</u>
	Engineering a better tomorram	
	Dear Mentor,	
	Greetings from e-Yantra!	
	We are happy to know that your project "Pharn	
	one of the projects nominated from your colle Ideas Competition (eYIC-2018).	ege for participation in the
	Ideas competition (erre 2010).	
	Login credentials for portal are:	
	Portal link: www.eyic.e-yantra.org	
1	Username: soorya.7204@gmail.com	
(?) (?)	Password: t6Pekh4FAg	
6	Note: These credentials are temporary. You	u may change the passw
	you login to the portal.	

# Selected for first round in project idea competition







Inbo

Dear Students,

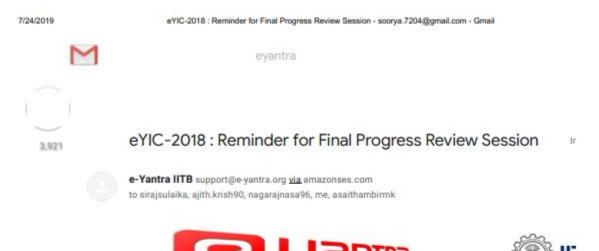


Greetings from e-Yantra !!!!

Congratulations!!! Your project Pharmacy Assistance Robot is **selecter** and Code Implementation. You should start building a prototype/wor proposed idea. We will soon conduct a Progress Review Session through progress of the implementation of your proposed idea. Details of the Progr will be conveyed to you in due course of time.

Thanks and regards,

# Project idea competition – Review session:





Dear Mentor/Students,

Greetings from e-Yantra!

This is to remind you that Final Review session for Your Project 'Pha Robot' is scheduled today i.e. on 27 December, 2017 starting from 11:00 must attend this Final Review Session.

The session will be conducted on hangout using gmail account. helpdesk\_4@e-yantra.org

You have to use usus registered amail account to join the cossion. East join

# Project idea competition – remainder for stage 2 submission:







Dear All,



Greetings from e-Yantra !!!!

You must be working hard to complete your implementation. We are your video and code submission on or before the deadline: Midnight, Feb Please note that you can submit your video only once.

However, we will keep the upload option open **till 9:00 AM**, **Feb** Teams submitting the video and code after Midnight, February 10th, 2018 of 5% of their score deducted from their total score.

7/24/2019	Hangout with e-Yantra Helpdesk_4 - soorya.7204@gmail.com - Gmail
Μ	eyantra
3,921	Hangout with e-Yantra Helpdesk_4
	e-Yantra Helpdesk_4 to me Please tell us your project title?
	Sangeetha Surya <soorya.7204@gmail.com> to e-Yantra Pharmacy Assistant Robot</soorya.7204@gmail.com>
	e-Yantra Helpdesk_4 to me please wait we will get back to you in 5 min
8 6	e-Yantra Helpdesk_4 to me We will start your review at 3:00PM

7/24/2019 (Urgent) eYIC-2018 : Meet The Mentor - soorya.7204@gmail.com - Gmail eyantra 3,921 (Urgent) eYIC-2018 : Meet The Mentor Inbox × e-Yantra IITB support@e-yantra.org <u>via</u> amazonses.com to me, sirajsulaika, ajith.krish90, nagarajnasa96





Respected Sir/Madam,

Greetings from e-Yantra!

We are happy to let you know that e-Yantra plans to host 8-10 Regional Fi Ideas Competition (eYIC-2018) across the country. We would like each one be showcased in the Regional Finals.

As you may be aware, we have the second round of Progress Review se our bid to interact with not just the team but the Mentor as well, we hav



### **VALET PARKING ROBOT**



Name of the project Description Hardware Software Students

- : Valet parking robot
- : automated car parking project
- : Firebird V kit
- : Atmel Studio
- : Aldrin
  - Ajith krishna Harikrishnan
  - David muthuselvan

### PHARMACY ASSISTANT ROBOT



Name of the project Description Hardware Software Students

- : Pharmacy assistant robot
- : Automated medical project
- : Firebird V kit
- : Atmel Studio
- : Sirajudeen Dhinesh babu Dhinesh kumar
  - Nagarajan

### **RASPBERRY PI WORKSHOP**



Name of the program	:	IoT using Raspberry pi workshop
Number of Participants	:	62
attended		
Date	:	29.8.2018

### **RASPBERRY PI TRAINING**



Date

Name of the program : Value added course – raspberry pi

: 08.01.2019

# **RASPBERRY PI TRAINING**



Date

Name of the program : Value added course – raspberry pi

: 01.07.2019

# **ABSTRACT:**

With over 76.65 million people, Tamil Nadu is one of the most populous states in India. As the population increases, the problems around the state in various sectors for the common man increases. Nowadays our lives have become busy and so people don't find the time to write letters to the concerned authorities to fix the public issues - instead they ignore these issues - hence most of these issues go unnoticed by the government. Hence we have designed a system through which users can register their complaints through their hand held devices or even through a web portal.

This project was inspired by the e-ticketing system that is being used in our college (Mount Zion College of Engineering and Technology). The system in our college allows staffs and students to report on the maintenance issues within the campus by logging into our college's web portal through which the administrators are aware of the issues inside the campus and so we thought of implementing a similar system that will be scalable and efficient when used by a large user base such as the population of an entire state through which the public can report issues on the go to the government. The system is extremely user friendly and can be used effectively even by people who are not technology native.

We have developed this system to run on multi platforms like Android, iOS and Windows smartphones. If the user cannot afford a smartphone he/she can always use the Internet to register their complaints. This software is multilingual and can be used in languages like English, Tamil, Hindi and can be adapted to any vernacular language with ease. We are planning to add more languages so that users can use this application in the language which they feel comfortable with.

This system works in real time and through this, the common people can register his complaints directly to the government and the complaints are directed to the respective authorities where they can be resolved. Registered users can file a complaint about a specific problem which they think the government can address. The user can upload a picture or a video file as proof of the issue/complaint. The location of the user can be obtained from the GPS in the smartphone which is used to register the issue.

Sl. No.	Criteria	Implementation Details
1.	Service Focus	
	Citizen Services	This system can be used in any electronic gadgets like mobiles, laptops and tablets.
	Back office integration	The system can operate itself in the backend. The data is stored and retrieved directly from the databases.
2.	Nature of Services	
	Transactional	The government officials can notify the users about the status of their complaint. The user can communicate with the government officials through the chat box provided.
	Informational	The government can contact the citizen directly by sending an SMS or email.
3.	Accessibility and Conv	enience
	Availability across common platforms	We have designed a website through which the user can register himself and post a complaint
	Availability in unique platforms	We have developed mobile applications to use this system which can be operated in platforms like Android and iOS.
4.	Cost effectiveness	
	Affordable charges to users	To use this system the user doesn't have to spend any extra payment. It can be accessed in any device with an internet connection in it
5.	Security	
	Multi factor authentication	The user must enter his/her email id and mobile number for verification.
	Encryption	We have designed this system to encrypt the user's password before the transmission through network to prevent the account from being hacked.
	Basic Authentication	The user has to enter only his basic details like username and password to login to the system and register their issues.
6.	Technology	
	Development Platforms	We have designed this system to run in different platforms of the latest version operating system.
7.	Level of impact	
	Beneficial to all sections of people	This system doesn't require any expense and so it can be used by every people in the state.

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A multi-lingual, multi-platform G2C communication system

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# PROLOGUE

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# **1 PROLOGUE:**

### 1.1 INTRODUCTION:

Science and Technology has developed and is developing tremendously in the 21<sup>st</sup> century. The system which we designed is a part of the development. This system is designed to make our state a better place to live. In Tamil Nadu there are lots of issues and complaints that are being unnoticed by the government. Many people who are aware of the problems around them just ignore it instead of finding a way to fix it just because they don't take the hardship of going to a government office and writing letters to file a complaint about a specific issue.

The system allows the user to register themselves by providing their email id and mobile number. The registered user can file a complaint about a specific matter and the complaints are directed to the respective authorities depending on the priority. The priority is set by the user based on their needs of how soon the authorities have to fix the issue. The user can upload a photo or a video file for a proof. The complaints registered by the user will be categorised and sorted to different sectors and sent to the respective authorities.

The user can log into his account and view the status of his complaints that he has sent to the government. The government officials can view the complaints and send an update to the user about what action has been taken to fix the issue.

# 1.2 EXECUTIVE SUMMARY:

The system is designed to reach every common man of the state. This software helps to deal with the issues of our daily life and the problems we face. There have been similar projects developed before but none came out successfully. There's a similar system in Nasik Municipal Corporation System, Mumbai, Maharashtra. There has never been a system like this in Tamil Nadu and so we have designed this system which can be used in different platforms like Android iOS and Windows smartphones. In our modern world almost every teenager has a smartphone of their own and so we have developed mobile applications through which the user can register their complaints to the government.

# 1.3 **PROJECT DESCRIPTION:**

This system enables the common men to register things which they feel must be set right by the government. By this system government can be aware of things that need to be fixed around the state. Even this application can be used to control crimes around our locality. The speciality of this system is that it is available in different platforms like Android and IOS also. The application allows the user to upload photo or video files for a proof so that it will be easier for the administrator to realise the seriousness of the complaint and fix it as soon as possible. The below picture shows the login pages of Android, iOS and the Web.

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Password	Email or Mobile No	Password
Enter your Password	password	C Keep me signed in Submit
Forgot Details? Sign In	Register Here   Forgot Password?	Forgot password?
	submit	
Don't have an account? Sign Up!		
Register with eComplaints to post your Complaints.		
	Fig. 1.3.a MU	<b>JLTI-PLATFORM LOGIN SCREENS</b>



#### 1.3.1 Cost effectiveness:

This system requires very less amount of cost for both the developer and the stakeholder. In the case of registering a complaint. We have designed this application to work in different platforms. Every user having an Android or Apple or Windows smartphone can download this application and use it to register their complaints to the government. In case the user cannot afford to buy a smartphone he/she can always use the online web link.

#### 1.3.2 GPS:

The Global Positioning System (GPS) is a U.S. space-based global navigation satellite system. It provides reliable positioning, navigation, and timing services to worldwide users on a continuous basis in all weather, day and night, anywhere on or near the earth which has an unobstructed view of four or more GPS satellites.

We have used the GPS technology to track down the location of the user from where the complaint has been registered so that it will be easier for the administrator to locate the location and fix the issue. When the user registers a complaint the application triggers a request to turn on the GPS of the mobile and the location of the user is found and stored to the administrator's database.

### 1.3.3 Overview of IP-based geolocation:

IP-based Geolocation is mapping of an IP address or MAC address to the realworld geographic location of an Internet connected to a computing device or mobile device. Geolocation involves in mapping IP address to the country, region (city), latitude/longitude, ISP and domain name among other useful things.

IP-based Geolocation is mapping of an IP address or MAC address to the realworld geographic location of an Internet connected to a computing device or mobile device. Geolocation involves in mapping IP address to the country, region (city), latitude/longitude, ISP and domain name among other useful things.

### 1.4 **PROBLEM SPECIFICATION:**

Nowadays people are getting so busy with their works, that they don't even have time to have their breakfast properly; this busy life makes them so difficult to report about the small issues within their environment circle. And even if they had to complaint about a bigger issue they had to wait for so long in front of a government office just to file their issue.

But by the help of this system that is developed, the user can inform their issues to the government in easy and a fast way.

### 1.5 METHODOLOGY:

A User first creates an account through the registration form and then logins to the system and Clicking the "file a complaint button" will redirect the user to the complaint page. He should fill all the mandatory fields provided there and should submit the complaint. After filing the complaint the user can look at the status of the complaints in His/her home page, which is being updated by the government officers regularly.

The government officials to whom the complaints were sent are the secondary administrators, they can see the complaints and should respond to them.

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# FEATURES

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# **2 FEATURES:**

### 2.1 TECHNOLOGY: CROSS-PLATFORM:

This system is available as a website and also in different platforms like Android and iOS. This enables users of different platforms to have access to the application. We are working on creating applications for few other platforms also.

#### 2.1.1 Android:



Android is the most successful and most popular mobile operating system ever developed. Almost 75% of the smartphone users have Android OS installed in their device.

Our app will be available in Play store so that any Android user can download the application for their device. This application has the feature of uploading a photograph for a proof. Users can take a photograph to explain their complaints with a proof. We believe by introducing this application for Android users many common people can be benefited. We have also added the GPS technology in this application. The application triggers the GPS device in the mobile and is used to track down the location of the user from where the complaint has been registered so that it will be easy for the government officers to track down the location to fix the complaint.

#### □□□□ □□□ - **SnaPort** – Take a snap & report the issue

A multi-lingual, multi-platform G2C communication system

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2.1.2 iOS:



iOS (originally iPhone OS) is the most innovative mobile operating system created and developed by Apple Inc. and distributed exclusively for Apple hardware.

It is estimated that Apple sells over a million iPhones a year in India. Many users are fond of using iPads also. So we have designed this application to run in iOS also. This application is quite similar to the Android application. It also has GPS technology and an option to capture and upload photographs for a MOUNT ZION COLLEGE OF ENGINEERING AND TECHNOLOGY Page 16 79 proof. The users can register using the sign up option and create an account so that they can login to the portal and register their complaints whenever they feel to do so.

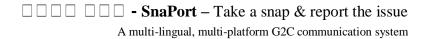


Fig. 2.1.b iOS HOME SCREEN

# 2.2 ACCESSIBILITY AND CONVENIENCE

### 2.2.1 MULTI LINGUAL:

A multilingual application is an application which can be deployed in several different languages and we are proud to present our application with multi language features. Our application is available in three different languages English, Tamil and Hindi. We are working on adding few more languages so that this application can be used by every users in the state.



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# வாய்மையே வெல்லும்

### Email

Enter your Email					
கடவுச்சொல்					
Enter your Password					
அனைத்தையும் நிரப்பவும்!					
Forgot Details?	Sign In				

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Fig. 2.2.a MULTILINGUAL iOS APP

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Fig. 2.2.b MULTI-LINGUAL LOGIN SCREENS

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#### 2.3 TRANSACTIONAL SYSTEM:

The service which we are providing through this is system is transactional method in which both the Government and the Citizen will be in touch.

The government officials can update the status of the complaints registered by the user by which the user receives a mail, a SMS in mobile and can also view the status by logging in to their account on the web.

We have also added a chat box in the website through which the user can communicate with the government officials and explain their complaints.

## 2.4 SECURITY:

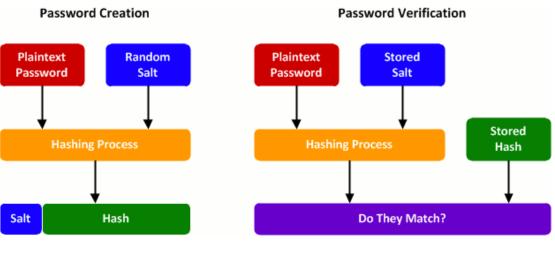
#### 2.4.1 ENCRYPTION:

We have two stages of verification. We will be verifying the user's email id and mobile number for maintaining a secure system. A verification mail and an SMS will be sent to the respective user.

We have also added an encryption system to secure the user's details. The user's details are encrypted before transmitting the details through the network so that the data cannot be hacked while transmission. We us the techniques of Hashing and Salting to encrypt the user's password to prevent the user's account from being hacked.

Storing all user passwords as clear text can result in a massive security breach if the password file is compromised. So to reduce this danger, we only store the hash digest of each password. To authenticate a user, the password presented by the user is hashed and compared with the stored hash. The password is often concatenated with a random, non-secret salt value before the hash function is applied. The salt is stored with the password hash. Because users have different salts, it is not feasible to store tables of pre computed hash values for common passwords. We use md5 hash algorithm to perform Hashing and Salting. **SnaPort** – Take a snap & report the issue

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## 2.4.2 URL ENCRYPTION:

In our system we have encrypted the URL of our webpage so that users can't view our parameters so that the security will be strong and can't be breached easily. To read an encrypted file, you must have access to a secret key or password that enables you to decrypt it. Unencrypted data is called plain text, encrypted data is referred to as cipher text.



# **WORKING ENVIRONMENT**

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# **3 WORKING ENVIRONMENT:**

## 3.1 HARDWARE & SOFTWARE REQUIREMENTS:

#### 3.1.1 Introduction:

This section deals with the devices which are required for accessing the software and the minimum requirements needed to develop the application. The user must have access to a PC or a smartphone to use this system. The main database is MySQL server which is used to store all the detail needs to run the application.

#### 3.1.2 Description:

The developed system can be accessed by android phones, iPhones and computers. For user easy access we have android app for android phones and IOS app for apple devices other than webpage. These devices help the user to give their complaints on spot with a media file. The media file helps the authority to verify the problems. And this devices gives each update for their complaint on their devices.

#### 3.1.3 Requirements for developing SnaPort:

Android Studio 1.0.1 X code Notepad++ Filezilla FTP server Wamp server mySQL

#### 3.1.4 Minimum requirements for using our software - SnaPort:

#### 3.1.4.1 Administrator: Hardware

#### System:

A PC connected with internet with speed of 512kbps and higher

#### Memory (RAM):

Capacity: Minimum 4.00 GB

#### Processor

Processor: Pentium Dual core and higher

Processor Speed: 2.00 GHz

#### Server:

Hard Disk Space: 1TB and above

#### 3.1.4.2 Administrator: Software

- 1. Wamp server
- 2. MYSQL workbench
- 3. Filezilla FTP server
- 4. OS used: Windows/IOS X

#### 3.1.4.3 Sub-Administrator: Hardware

#### System:

A PC connected with internet with speed of 512kbps and higher

#### Memory (RAM):

Capacity: Minimum 2.00 GB

#### Processor

Processor: Pentium Dual core and higher

Processor Speed: 2.00 GHz

#### Server:

Hard Disk Space: 500GB

#### 3.1.4.4 Sub-Administrator: Software

1. Web Browsers (Chrome, Mozilla Firefox etc.)

## 3.1.4.5 Users: Hardware

- System with internet connection of speed 256kbps (or)
- An Android Smartphone (or)
- A iPhone

#### 3.1.4.6 Users: Software

- A web browser ( Chrome, Mozilla Firefox, Opera mini)
- Android Smartphone with Android 2.3 (Gingerbread) and higher
- iPhone with iOS 7 and above

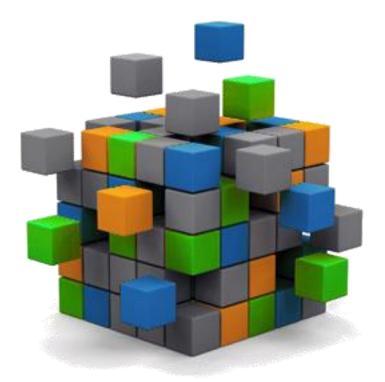
## 3.2 REASON FOR CHOOSING THIS PROJECT:

Nowadays our lives have become busy and so people don't write letters to the concerned authorities to fix their issues instead they ignore it so, most of the issues go unnoticed to the government.

So this project is selected to bring end to the problem waiting for so long in front of an office to inform your issues. To increase the communication between the government and the common people, to rectify all the minor issues faced by the people every day and to make our state a better place for living.

## 3.3 CONCLUSION:

Thus, this section summarizes the requirements for the project and the environment in which the project was done. It also deals with why this project was selected.



# MODULES

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# 4 ANDROID MODULES:

## 4.1 MODULE I: REGISTRATION:

#### 4.1.1 Introduction:

This module is used to register the user's details to the database through their Android smartphones. The details of the users is required to verify whether the user is valid person or a fake id. The details such as name, email, address, mobile no., state, district, town are got from the user while registration.

#### 4.1.2 Description:

Everyone who wishes to complaint to the government of the country should create an account at the Registration page. The registration form must be filled and the data is saved in the database with their valid email address and mobile number .The process of registration is carried out by the user and is being managed by the administrator. The user's details are hidden for the government officers. The password of the user is not even visible for the administrator, the password is being Hashed and Salted so that the password can be secured from the hackers and the hashed password is stored into database. All the details are added into the respective SQL database tables. The user's account is verified using the Simple Mail Transfer Protocol (SMTP). The SMTP is used to send and receive mails between the users and the Administrators. The user has to provide their mobile number while registration. The user receives a sms with a verification code which is used to register in the system.

#### 4.1.3 Algorithm:

- > Open the application
- Click on to create a new account or register or sign up option
- Enter the user details into the Registration page.
- Enter valid email address and mobile no.
- > The email address and mobile number is being verified.
- > The details are saved if the email address and mobile no. is verified.
- A new record is created in the database table.
- All the information is stored in the database

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Fig. 4.1.a ANDROID SIGNUP SCREEN

# 4.1.4 Outcome of module I:

This module was executed and tested for errors. The validation was proved to be successful and has been verified and is complete.

## 4.2 MODULE II: SIGNING IN

#### 4.2.1 Introduction:

This module is used to Login to the database of this system. To login the user has to register in the sign up page. After registration, the user enters the email id and password in the sign in section. The email address and password entered by the person is validated in the database and is being logged in and the user can register his/her complaints.

#### 4.2.2 Description:

To login into the person needs his/her email address and password registered in the registration page. The email address and password entered by the person is validated in the database and is being logged into the dashboard according to their category. The Administrator has access to all the complaints but the government officers have access only to the complaints of their sector. "Forgot password" option is used to reset the password in case the user forget his/her password. While resetting the password. Users have to verify their identity by providing their email id or mobile number for verification.

#### 4.2.3 Algorithm:

- > Open the application
- Enter the registered username & password in the login page
- Click the submit button

## 

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passv	vord		
Regis	ter Here   For	got Passw	ord?
	subm	iit	

#### Fig. 4.2.a ANDROID SIGN IN SCREEN





#### Fig. 4.2.b ANDROID CHANGE PASSWORD SCREEN

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## 4.3 MODULE III: COMPLAINTS:

#### 4.3.1 Introduction:

This module allows the user to file a complaint against something or can be used to give a note to the admin.

#### 4.3.2 Description:

This form will be viewed by the user when he/she presses the button "file a complaint". When the user clicks the button "file a complaint", the user will be redirected to the page where he can post a note to the admin. The form consist of some fields which should be filled to register the complaint. The form shows the complaint category which will be displayed in a drop down box and then fill the complaint details in the text box. If the users has some photos regarding the complaint, he can upload it so that the photo is uploaded to the database which can be viewed by the user.

The image which is uploaded by the user is not directly stored in the database, the image is uploaded using the FTP server. The image is stored in the database in binary type so that the size consumed by the image will be reduced to half, this makes the fetching of data from the table more efficient and faster. This also makes the size of the database small. The photo can be streamed by the user. The photo is streamed directly because it reduces the effort of the admin much and makes the photo accessible faster.

#### 4.3.3 Algorithm:

- ➢ Click "File a complaint".
- ➢ Fill all the necessary details.
- Click "submit"

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Fig. 4.3.a ANDROID FILE A COMPLAINT SCREEN

# 5 iOS MODULES:

## 5.1 MODULE I: REGISTRATION:

#### 5.1.1 Introduction:

This module is used to register the user's details to the database through their Android smartphones. The details of the users is required to verify whether the user is valid person or a fake id. The details such as name, email, address, mobile no., state, district, town are got from the user while registration.

#### 5.1.2 Description:

Everyone who wishes to complaint to the government of the country should create an account at the Registration page. The registration form must be filled and the data is saved in the database with their valid email address and mobile number .The process of registration is carried out by the user and is being managed by the administrator. The user's details are hidden for the government officers. The password of the user is not even visible for the administrator, the password is being Hashed and Salted so that the password can be secured from the hackers and the hashed password is stored into database. All the details are added into the respective SQL database tables. The user's account is verified using the Simple Mail Transfer Protocol (SMTP). The SMTP is used to send and receive mails between the users and the Administrators. The user has to provide their mobile number while registration. The user receives a sms with a verification code which is used to register in the system.

#### 5.1.3 Algorithm:

- Open the application
- Click on to create a new account or register or sign up option
- Enter the user details into the Registration page.
- Enter valid email address and mobile no.
- > The email address and mobile number is being verified.
- > The details are saved if the email address and mobile no. is verified.
- A new record is created in the database table.
- All the information is stored in the database

## 5.2 MODULE II: SIGNING IN

#### 5.2.1 Introduction:

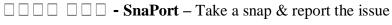
This module is used to Login to the database of this system. To login the user has to register in the sign up page. After registration, the user enters the email id and password in the sign in section. The email address and password entered by the person is validated in the database and is being logged in and the user can register his/her complaints.

#### 5.2.2 Description:

To login into the person needs his/her email address and password registered in the registration page. The email address and password entered by the person is validated in the database and is being logged into the dashboard according to their category. The Administrator has access to all the complaints but the government officers have access only to the complaints of their sector. "Forgot password" option is used to reset the password in case the user forget his/her password. While resetting the password. Users have to verify their identity by providing their email id or mobile number for verification.

#### 5.2.3 Algorithm:

- > Open the application
- Enter the registered username & password in the login page
- Click the submit button



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	3.03 pm	100%



# Email

Enter your Email

# Password

Enter your Password



# Don't have an account? Sign Up!

Register with eComplaints to post your Complaints.

#### Fig. 5.2.a iOS LOGIN SCREEN

# **6 WEBSITE MODULES:**

## 6.1 MODULE I: REGISTRATION:

#### 6.1.1 Introduction:

This module is used to register the user's details to the database. The details of the users is required to verify whether the user is valid person or a fake id. The details such as name, email, address, mobile no., state, district, town are got from the user while registration.

#### 6.1.2 Description:

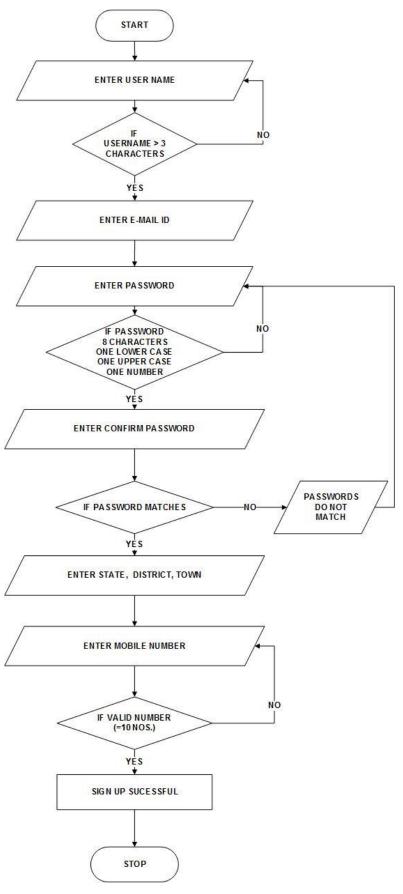
Everyone who wishes to complaint to the government of the country should create an account at the Registration page. The registration form must be filled and the data is saved in the database with their valid email address and mobile number .The process of registration is carried out by the user and is being managed by the administrator. The user's details are hidden for the government officers. The password of the user is not even visible for the administrator, the password is being Hashed and Salted so that the password can be secured from the hackers and the hashed password is stored into database. All the details are added into the respective SQL database tables. The user's account is verified using the Simple Mail Transfer Protocol (SMTP)

#### 6.1.3 Algorithm:

- ➢ Enter the web site.
- Click on to create a new account button
- > Enter the user details into the Registration page.
- Enter valid email address and mobile no.
- > The email address and mobile number is being verified.
- > The details are saved if the email address and mobile no. is verified.
- A new record is created in the database table.
- > All the information is stored in the database

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User Name	
Minimum three characters	
Email	
Password	
Password must have at least eight letter at least one number, one lower and one letter	20200-2020-2020-2020-20
Confirm Password	
State	
State Select State	
Select State	
Select State	
Select State   DistrictSelect District	
District	
Select State  DistrictSelect District Town	

Fig. 6.1.b SIGNUP PAGE

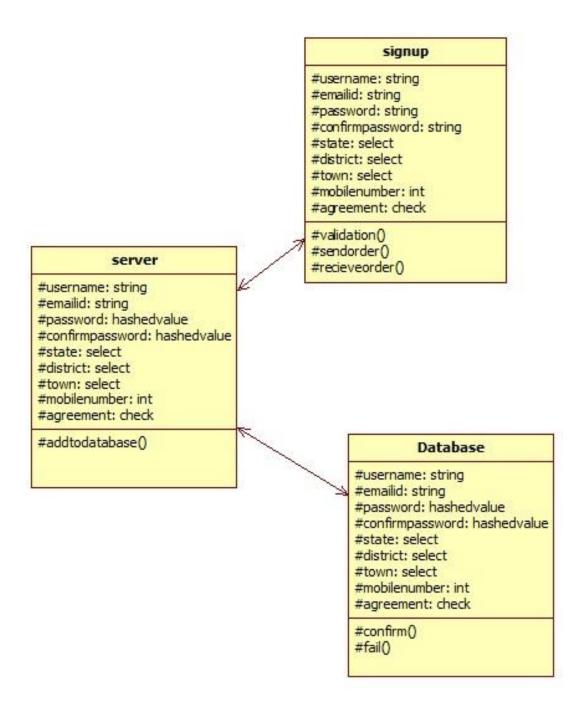


Fig. 6.1.c SIGNUP CLASS DIAGRAM

#### 6.1.4 Outcome of module I:

This module was executed and tested for errors. The validation was proved to be successful and has been verified and is complete.

## 6.2 MODULE II: SIGNING IN

#### 6.2.1 Introduction:

This module is used to Login to the web portal of this system. The login section is divided into three category. The categories are users, Government Officers and Administrator. To login into the categories the person needs his/her email address and password used in the registration page. The email address and password entered by the person is validated in the database and is being logged into the dashboard according to their category. "Forgot password" option is used to reset the password in case the user forget his/her password. While resetting the password. Users have to verify their identity by providing their email id or mobile number for verification.

#### 6.2.2 Description:

The login page is accessed by three category of persons who vary depending on their rights. To login into the categories the person needs his/her email address and password used in the registration page. The email address and password entered by the person is validated in the database and is being logged into the dashboard according to their category. The Administrator has access to all the complaints but the government officers have access only to the complaints of their sector.

#### 6.2.3 Algorithm:

- $\succ$  Enter the website
- > Enter the registered username & password in the login page
- Click the submit button

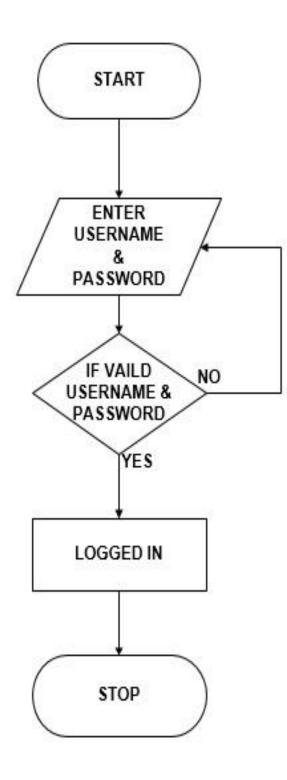


Fig. 6.2.a LOGIN FLOWCHART

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	<b>gin</b> e provide your details		
•	Username		
P	Password		
Ke	ep me signed in	submit	
Forgot	Forgot password?		

Fig. 6.2.b LOGIN PAGE

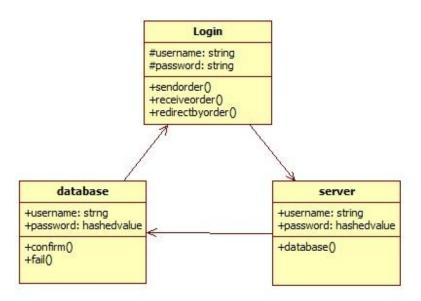


Fig. 6.2.c LOGIN CLASS DIAGRAM

#### 6.2.4 Outcome of module II:

This module was executed and tested for errors. It has been verified and completed.

## 6.3 MODULE III: USER DASHBOARD

This module is the form which is displayed after the user logs in. This module consist of all the information corresponding to the user who has logged in. This module allows the user to do different actions. This module has few sub modules in it,

- 1. Home
- 2. Profile
- 3. Complaints

#### 6.3.1 Home:

#### **6.3.1.1** Introduction:

This module is a form which will be visible to the user hence this form is the home form.

#### **6.3.1.2** Description:

The home form consist of many buttons which performs many actions. A dropdown box is in the user dashboard which has two options "logout" and "profile", when the profile is clicked the selection will make the url to redirect to the profile page. On clicking the logout the session of the user will be closed and the page will be logged out. Refresh button is also added in the form which is used to refresh the page. This page also has a button called "file a complaint". On clicking this button the user is actually redirected to a page which allows the user to post a complaint which can be viewed by the admin.

The page also has some tables which actually displays all the complaints which is posted by the user. The table has all the details like when the complaint was posted, what is the complaint, and also with the responses. Every complaints from the past till the future will be shown.

#### **6.3.1.3** Algorithm:

- $\triangleright$  Log in to the page.
- > Press the "file a complaint" button to file a complaint
- Press the "refresh" button to refresh
- Press the "logout" button to logout

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Fig. 6.3.a USER DASHBOARD HOME PAGE

#### 6.3.1.4 Outcome of module Home:

This module was executed and tested for errors. It has been verified and completed.

#### 6.3.2 Profile:

#### **6.3.2.1** Introduction:

This form is used by the user to update the profile. It is also used to view his/her own profile.

#### 6.3.2.2 Description:

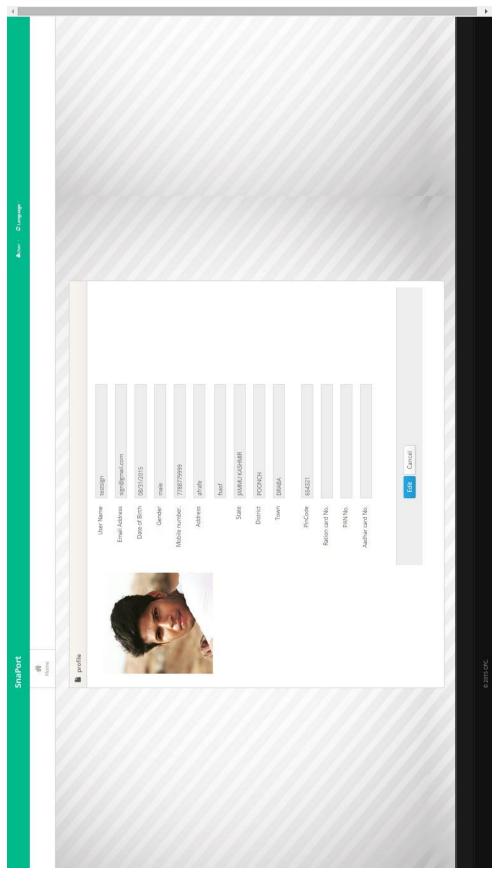
This form is loaded by using the session id which will be generated during the user's login. This form consist of all the details of the user which was entered by him/her during his registration. This form can be used as a source for the user to view his details to know what details are given by him. Updating the profile can also be done by the user. An "update" button is placed to update his profile. When the user presses the update button he is redirected to a page to update the details the user can update the required details and then press the "save" button to save his profile. The profile updated by the user will be saved to the database.

#### 6.3.2.3 Algorithm:

- Click on user.
- ➢ Select profile.
- View it or update the profile.
- Click save

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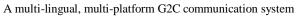


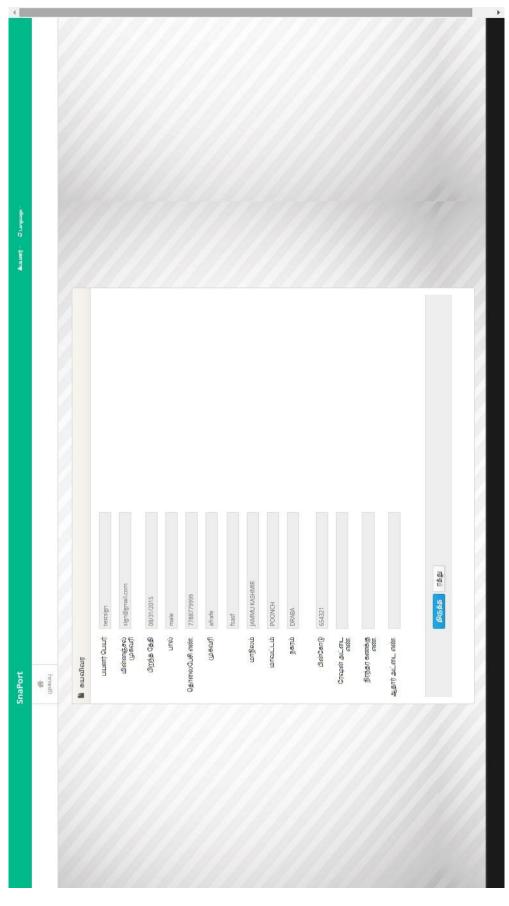
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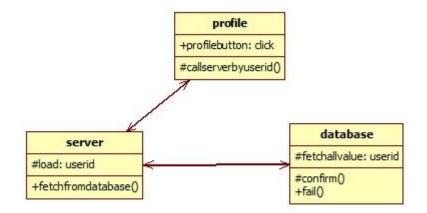
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## Fig. 6.3.c EDITED USER PROFILE

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#### Fig. 6.3.d CLASS DIAGRAM FOR USER PROFILE

#### **6.3.2.4** Outcome of module Profile:

This module was executed and tested for errors. It has been verified and completed.

#### 6.3.3 Complaints:

#### **6.3.3.1** Introduction:

This module allows the user to file a complaint against something or can be used to give a note to the admin.

#### 6.3.3.2 DESCRIPTION:

This form will be viewed by the user when he presses the button "file a complaint". When the user clicks the button "file a complaint", the user will be redirected to the page where he can post a note to the admin. The form consist of some fields which should be filled to register the complaint. The form shows the complaint category which will be displayed in a drop down box and then fill the complaint details in the text box. If the users has some photos regarding the complaint, he can upload it so that the photo is uploaded to the database which can be viewed by the user. The user is also allowed to select the priority which in future can be edited by the admins.

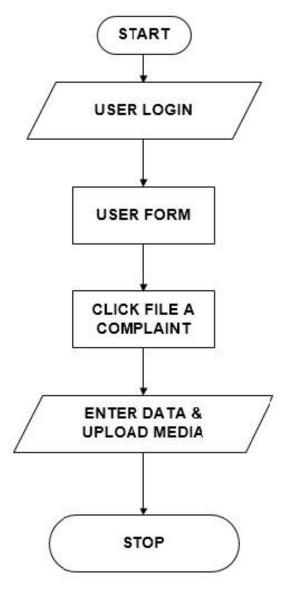
The image which is uploaded by the user is not directly stored in the database, the image is uploaded using the FTP server. The image is stored in the database in binary type so that the size consumed by the image will be reduced to half, this makes the fetching of data from the table more efficient and faster. This also makes the size of the database small. The photo can be streamed by the user. The photo is streamed directly because it reduces the effort of the admin much and makes the photo accessible faster.

#### **6.3.3.3** ALGORITHM:

- Click "File a complaint".
- ➤ Fill all the necessary details.
- Click "submit"

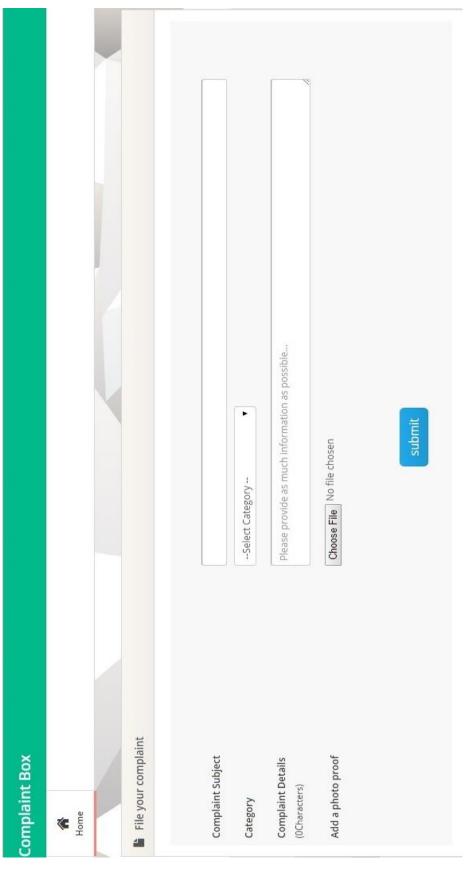
# □□□□□□ **SnaPort** – Take a snap & report the issue

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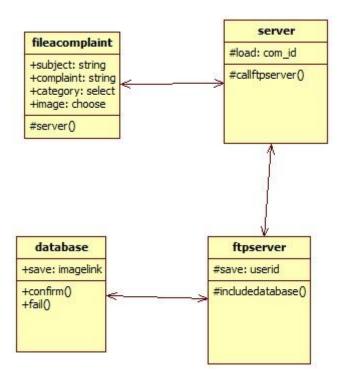


# $\square$ $\square$ $\square$ $\square$ $\square$ $\square$ $\square$ - SnaPort – Take a snap & report the issue

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Fig. 6.3.f

FILE COMPLAINT PAGE





#### **6.3.3.4** Outcome of module Complaints:

This module was executed and tested for errors. It has been verified and completed.

## 6.4 MODULE IV: SUB ADMIN DASHBOARD

This module is the form which is displayed after the login activity of the secondary admin or the category admin. This module consist of all the information corresponding to the category admin who has logged in. This module allows the user to do many a type of actions. This module has many sub modules inside it. This secondary admin is

- 1. Home
- 2. Profile
- 3. Status Update

### 6.4.1 Home:

#### **6.4.1.1** Introduction:

This module is a form which will be visible to the secondary admin after his login activity. Hence this form is the home form.

## **6.4.1.2** Description:

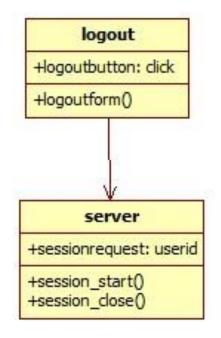
The home form consist of many buttons which does many actions. A dropdown box is in the dashboard which has two options "logout" and "profile". When the profile is clicked the selection will make the URL to redirect to the profile page. On clicking the logout the session of the user will be closed and the page will be logged out. Refresh button is also added in the form which is used to refresh the page.

The page also has some tables which actually displays all the complaints which is posted by the user. The table has all the details like when the complaint was posted, what is the complaint, and also with the responses. Every complaints from the past till the present will be shown. Each table has a view button which is used to view the complaint in that particular row in a detailed manner. This form also has two buttons which is used to respond to the problem.

The page has some links which shows the complaints which is seen, unseen, not responded, responded, and total complains. On clicking the ling the page will be redirected according to the corresponding header given.

## 6.4.1.3 Algorithm:

- $\blacktriangleright$  Login to the page.
- Seen shows the number of seen complaints
- Unseen shows the number of unseen complaints
- > Total complaints show the number of complaints recorded
- Responded shows the complains responded
- Progress shows the number of complain which is in progress





## □□□□ □□□ - **SnaPort** – Take a snap & report the issue

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Fig. 6.4.b SUB ADMIN DASHBOARD

## 6.4.2 Profile:

## **6.4.2.1** Introduction:

This form is used by the admin to update their profile. It is also used to view his\her own profile.

## 6.4.2.2 Description:

The form is loaded by using the session id which will be generated during the user's login. This form consist of all the details of the user which was entered by him during his registration. This form can be used as a source for the user to view his details to know what details are given by him. Updating the profile can also be done by the user. An "update" button is placed to update his profile, when the user presses the update button he is redirected to a page to update the details the user can update the required details and then press the "save" button to save his profile. The profile updated by the user will be save to the database.

## 6.4.2.3 Algorithm:

- Click on user.
- ➢ Select profile.
- ➢ View it or update the profile.
- Click save

## 6.4.2.4 Outcome of module Profile:

This module was executed and tested for errors. It has been verified and completed.

## □□□□□□ **SnaPort** – Take a snap & report the issue

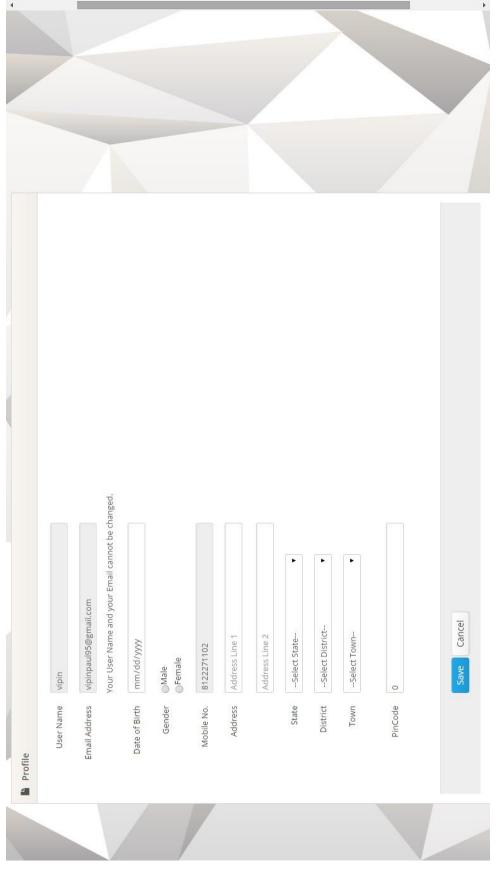


Fig. 6.4.c SUB ADMIN PROFILE

## 6.4.3 Status update:

## **6.4.3.1** Introduction:

This is used to send message to the user by the category admin. Message can be sent to the user regarding their complaints and the actions taken.

## 6.4.3.2 Description:

The module is used as a communication between the user and the category admin. The admin can send both manual and auto generated messages to the user. The admin can select the option regarding how busy he is. If the user has no time, we have given some auto generated statements which will be sent to the users on just checking the check box and click on send. Manual message can also be sent to the user. The admin has to type the message in the text box and click on send to send the message.

## 6.4.3.3 Algorithm:

- Select on respond
- Check the appropriate box
- Or manually type a message
- Press send

Update the c	omplaint status	
	<ul> <li>Status:Action In Progress</li> <li>Status:Action Completed</li> </ul>	
	Your message	
Message		
	Close submit	

## Fig. 6.4.dSTATUS UPDATE PAGE

## 6.4.3.4 Outcome of module IV:

This module was executed and tested for errors. It has been verified and completed

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## 6.5 MODULE V: MAIN ADMIN DASHBOARD

### 6.5.1 Introduction:

This is the form which will be loaded to the main admin when he logins. This form manages every user and the secondary admin.

## 6.5.2 Description:

The admin handles this page completely, the dashboard deals every details stored in the database. this allows the admin to update, edit, delete, change, create, delete, activate, deactivate, everything found in the database. The admin dashboard has the statistics of the users who has joined the site. On clicking the link it opens a separate page which shows the user info page with number of users and their details. The page also displays the statistics of the secondary admin which on clicking the link displays the admin info page which displays the number of secondary admin.

The user info page displays all the users in a table form. This form also has some additional features which enables the admin to promote the user as a secondary admin. The admin can also deactivate the users account, activate the user's account, and permanently delete the users account. The admin can also search for the user by the user's name. The admin can list the users from a particular locality. The admin has to enter the locality from where he has to see the users and the press on search button. The users on the particular locality will be viewed.

The admin category info page displays all the admin who has been promoted or all the secondary admin. The main admin can make any secondary admin deactivate or active or delete his account permanently. He can search admin by their name and also by the locality.

The next page is the complaint info page which can be viewed by the admin. Here the admin can view every single complaints recorded in the database. He can also view the database category wise. Splitting of the complaints Category wise complaints makes the admin feel comfortable on viewing the complaints. The admin can see the statistics of total number of complaints, seen complaints, unseen complaints, responded complaints, actions in progress.

The admin has given rights to directly question each secondary admin for actions they have done.

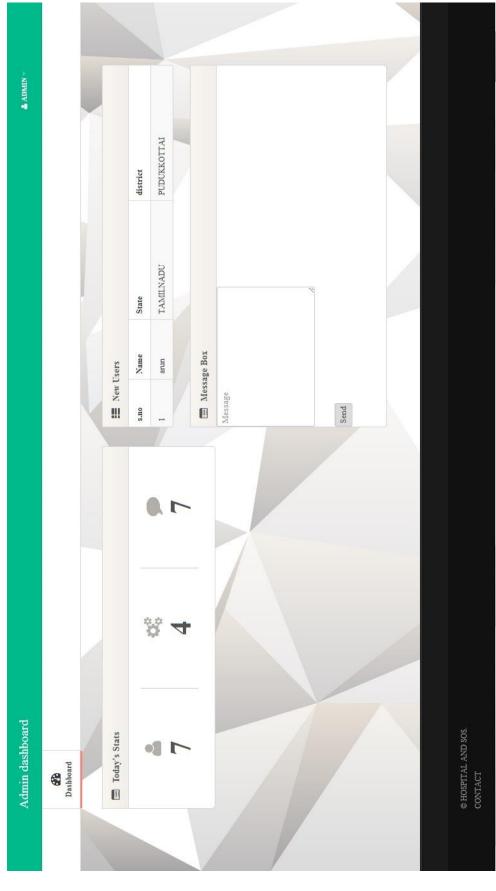
## 6.5.3 Algorithm:

- ➢ Login
- ➢ Select user
- ➢ Update user as admin
- Deactivate, activate, delete a user's account
- Search a user by name or his locality
- ➢ Select admin
- > Deactivate, activate, delete a secondary admin
- Search a secondary admin by name or his locality
- Select complaints
- View the statistics of complains
- ➢ View all the complaints
- Direct message
- $\blacktriangleright$  Question a admin

## 6.5.4 Outcome of module V:

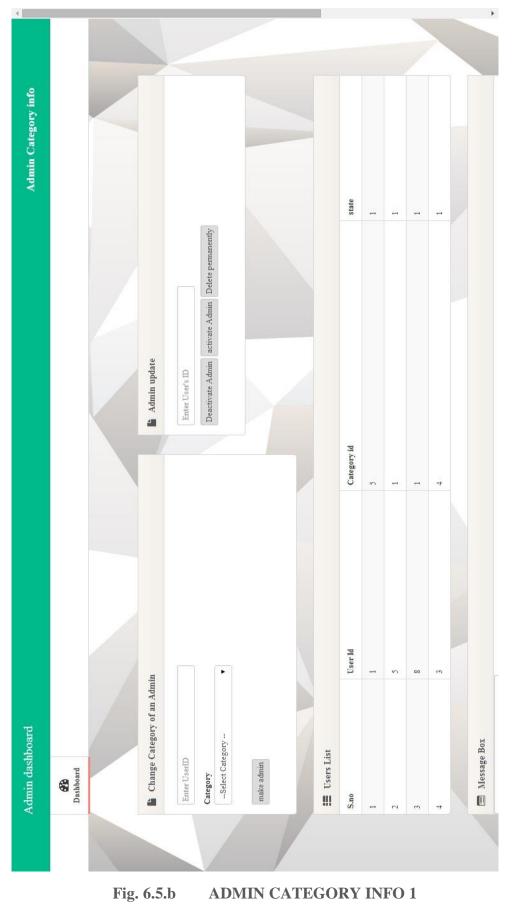
This module was executed and tested for errors. It has been verified and completed.

## $\square$ $\square$ $\square$ $\square$ $\square$ $\square$ $\square$ - SnaPort – Take a snap & report the issue

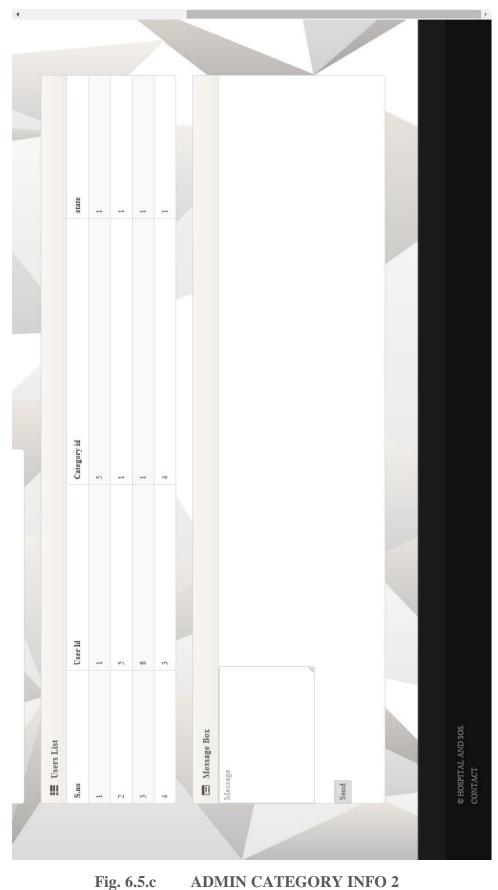




## $\square$ $\square$ $\square$ $\square$ $\square$ $\square$ - **SnaPort** - Take a snap & report the issue

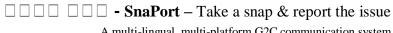


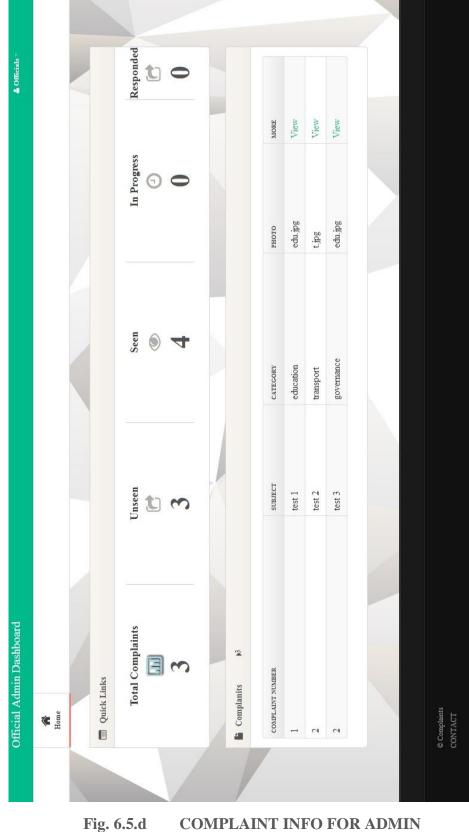
## $\square$ $\square$ $\square$ $\square$ $\square$ $\square$ - **SnaPort** - Take a snap & report the issue





4





## $\square$ $\square$ $\square$ $\square$ $\square$ $\square$ - **SnaPort** - Take a snap & report the issue

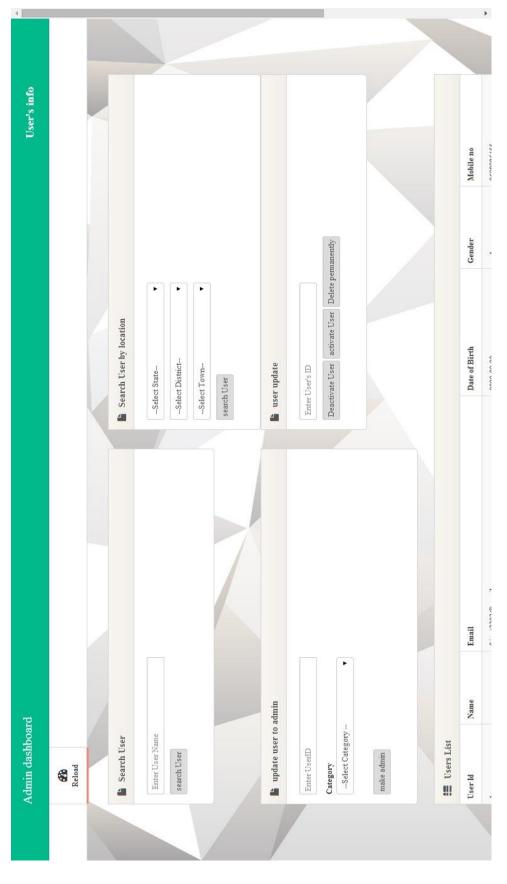


Fig. 6.5.e USER INFO FOR ADMIN

A multi-lingual, multi-platform G2C communication system

## 6.6 DATABASE SCHEMA:

Column Name	Datatype	PK	NN	UQ	BIN	UN	ZF	AI	Default
adminid	INT(11)	~	-						
types	VARCHAR(45)		-						
userid	INT(11)	~	-						
createdon	TIMESTAMP		-						CURRENT_TIMESTAMP
createdby	INT(11)		-						
active	INT(11)		-						

#### Fig. 6.6.a

**ADMIN TABLE** 

Column Name	Datatype	PK	NN	UQ	BIN	UN	ZF	AI	Default
categoryid	INT(11)	-	-						
category	VARCHAR(45)	6	-						
active	INT(11)		-						

## Fig. 6.6.b CATEGORY TABLE

Column Name	Datatype	PK	NN	UQ	BIN	UN	ZF	AI	Default
complaint_id	INT(11)	~	-						
userid	INT(11)		-						
subject	VARCHAR(45)		-						
details	VARCHAR(500)		-						
createdon	TIMESTAMP		-						CURRENT_TIMESTAMP
categoryid	VARCHAR(45)		-						
tags	VARCHAR(45)		-						
location	VARCHAR(45)		-						
latitude	VARCHAR(45)		-						
longtitude	VARCHAR(45)		-						
ip	VARCHAR(45)		-						
stateid	INT(11)		-		$\square$		$\square$		

Fig. 6.6.c

**COMPLAINT TABLE** 

## $\square$ $\square$ $\square$ $\square$ $\square$ $\square$ - **SnaPort** - Take a snap & report the issue

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Column Name	Datatype	PK	NN	UQ	BIN	UN	ZF	AI	Default
head	VARCHAR(20)	-	-						
idcol	INT(11)		-						
detail1	VARCHAR(50)		-						
detail2	VARCHAR(50)		-						
detail3	VARCHAR(50)		-						
detail4	VARCHAR(50)		-						

## Fig. 6.6.d MISC DATA TABLE

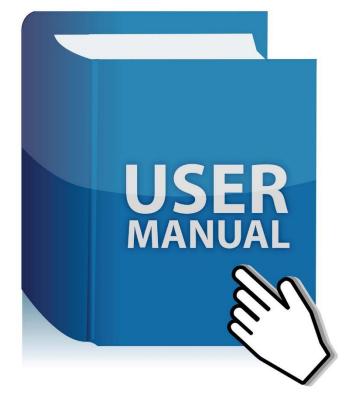
Column Name	Datatype	PK	NN	UQ	BIN	UN	ZF	AI	Default
userid	INT(11)	~	-						
cname	VARCHAR(45)		~						
email	VARCHAR(45)	~	-						
password	VARCHAR(45)		-						
dob	DATE		~						
gender	VARCHAR(4)		-						
mobile	VARCHAR(10)		-						
stateid	INT(11)		-						
districtid	INT(11)		-						
townid	INT(11)		~						
pincode	VARCHAR(45)		-						
createdon	TIMESTAMP		~						CURRENT TIMESTAMP

Fig. 6.6.e

## **REGISTRATION DETAILS TABLE**

Column Name	Datatype	PK	NN	UQ	BIN	UN	ZF	AI	Default
uploadid	INT(11)	-	-						
referenceid	INT(11)		-						
referencetype	VARCHAR(45)		-						
remotefile	VARCHAR(45)		-						
localfile	VARCHAR(45)		-						
createdby	VARCHAR(45)		-						
createdon	TIMESTAMP		-						CURRENT_TIMESTAMP
active	INT(11)		-						





## **USER MANUAL**

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## 7 USER MANUAL:

## 7.1 PRIMARY SERVER ADMINISTRATORS:

Maintain a database of users who have registered. If a user requests for registering their information with the system, have them fill up the Registration Forms. Update the database with the details.

Log on to the Administrator page. The Numerical count of Users registered and the total number Secondary administrator for the system will be displayed. The complaints which are made by the users are also displayed in a table by clicking on the link there the admin can view and respond to the user.

## 7.1.1 Managing users:

By clicking on the user icon the Administrator can look on to the list of all the users who have registered to the system. By providing the Name or Location to the search bar, the admin has the authority to promote, disable, enable or permanently delete the users account. Promoting a user will make him a secondary admin. Disabling an account will ban the user's account temporarily; it can be enabled later if needed and deleting an account will ban the user permanently from using the system.

## 7.1.2 Managing secondary administrators:

By clicking on the secondary administrator icon the administrator can look on to the list of all other secondary administrators. By providing The Name or location to the search bar, the admin has the authority to demote, disable or delete the administrator's account from the system.

### 7.1.3 Managing the complaints:

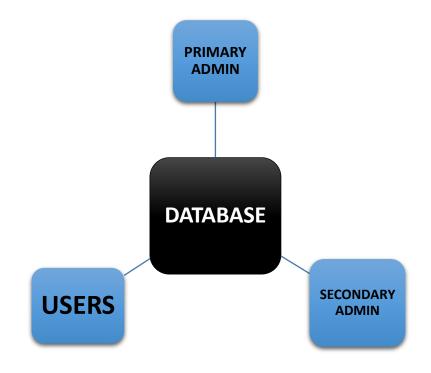
By clicking on the complaints inside the complaints list the admin can see the more detailed form of that particular complaint. And he could able to response or dismiss that complaint

## 7.2 SECONDARY SERVER ADMINISTRATOR:

The secondary admin will have to login to the system by providing the correct email and password. After logging in the secondary admin will assess the list of complaints that are listed in the homepage. And by clicking on the complaints inside the complaints list the admin can see the more detailed form of that particular complaint. And he could able to response or dismiss that complaint.

## 7.3 USER:

The User will have to register to the system first, before logging into it and should login to assess his/her pervious complaints. And can track on to the status of that issue being fulfilled



## 7.4 INSTALLATION OF THE SYSTEM:

This System is available in various platforms like Android, IOS and In Webpages using this system in web pages doesn't require any installation.

## 7.4.1 Android:

Download the apk file of the SnaPort application, store it in your android device and install it. After it is installed, login to the system and start using it or it can be directly installed through Google play

## 7.4.2 iOS:

The SnaPort application available apple app store, one can directly install it from the app store.

## 7.5 INSTALLATION OF SERVER:

## 7.5.1 Software needed:

- ➢ MySQL server
- MySQL connector
- > MySQL workbench
- ➤ Wamp server
- ➢ Php storm 8.0.1

## 7.5.2 Database installation:

- Install MySQL server
- install MySQL workbench
- Now connect the MySQL workbench with MySQL server
- ➤ Install MySQL connector to connect the both
- > After connecting the server, open the database
- Import all the csv sheets to the database
- Store the csv files in the database by clicking on apply
- ➢ Now the database is ready

## 7.5.3 Software installation:

- ▶ Install Php storm 8.0.1
- ➢ Load all the codes from the source
- ➢ Now the Php storm is ready

## 7.5.4 Setting up the interpreter:

- Load all the codes to the Php storm
- After loading all the pages
- Go to file
- > Select settings
- > Select Php
- > Select on interpreter
- Click browse
- Select c:/wamp/bin/php/php 5.5.12
- Select it and press apply
- Press ok
- > Now the interpreter is loaded

## 7.5.5 Working:

After all the above things are done .now one who has the code and the database, and can do any changes in the code as they wish. After the interpreter is done the codes can be loaded from the source and can be modified .it can be rebuilt or edited as per their need.



# CONCLUSION

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## 8 **CONCLUSION & FUTURE ENHANCEMENTS:**

This system will be a successful one if it's implemented all over the state. By using this system the government can monitor complaints all over the state from their office instead of accepting complaints through letters which go unanswered.

In future we have planned the complaints to be directly sent to the official's mobile as an SMS, So that he can fix it sooner. We are also developing this application in Windows and Blackberry platforms so that every smartphone user will have access to this system.





## DEVELOPERS

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## 9 **DEVELOPERS:**



NAME: PRAVEEN M DEPARTMENT: COMPUTER SCIENCE AND ENGINEERING YEAR: THIRD



NAME: SANJU ABEL J DEPARTMENT: COMPUTER SCIENCE AND ENGINEERING YEAR: THIRD



NAME:

VIPIN PAUL

**DEPARTMENT:** 

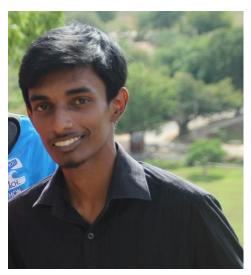
COMPUTER SCIENCE AND ENGINEERING

## YEAR:

THIRD



NAME: SAMRAJAN M DEPARTMENT: MECHANICAL ENGINEERING YEAR: FOURTH



NAME: ALDRIN B DEPARTMENT: COMPUTER SCIENCE AND ENGINEERING YEAR: SECOND

## CENTRE for AFFILIATION of INSTITUTIONS (formerly Centre for Engineering Partnership) ANNA UNIVERSITY CHENNAI

**Statutes for Affiliation 2004** 

&

**Regulations for Affiliation 2004** 

(as amended on 21-02-2007)

## STATUTES FOR AFFILIATION

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- 3. <u>PROVISIONS UNDER SECTION 29, CLAUSE XVI-a OF THE ANNA UNIVERSITY</u> ACT, 1978 AS AMENDED IN THE ANNA UNIVERSITY (AMENDMENT) ACT, 2001.
- 4. <u>POWERS TO GRANT OR WITHDRAW AFFILIATION</u>
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(To read with the "Statutes for Affiliation")

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  - Career Advancement Scheme
- R 11.3 Qualification, Experience and Scales of Pay
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- R 11.4 Non-Teaching Staff
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- **R 14 <u>HEALTH CENTRE</u> (vide Section 5.11 of the Statutes)**
- **R 15** <u>CO-CURRICULAR ACTIVITIES</u> (vide Section 5.12 of the Statutes)
- **R 16 <u>NECESSARY AMENITIES</u> (vide Section 5.13 of the Statutes)**
- **R 17 DISCIPLINE AND WELFARE COMMITTEE** (vide Section 5.14 of the Statutes)
- **R 18 <u>REGISTERS AND RECORDS</u> (vide Section 5.15 of the Statutes)**
- **R 19 <u>RETURNS FROM THE COLLEGE</u> (vide Section 5.16 of the Statutes)**
- R 20 FORMAT OF APPLICATION FOR AFFILIATION (vide Section 7.1 of the Statutes)
- R 21 INSPECTION FEE (vide Section 7.2 of the Statutes)
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- **R 23** STANDING COMMITTEE ON AFFILIATION (vide Section 7.4 of the Statutes)

#### Regulation

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## STATUTES FOR AFFILIATION

#### 1 BACKGROUND

Anna University was founded as a unitary type of University under the Anna University Act, 1978. This Act was amended in the year 2001 under the Anna University (Amendment) Act, 2001 converting the Anna University into an affiliating type of University in the State of Tamil Nadu, with jurisdiction over the entire State of Tamil Nadu, excluding the area under Annamalai Nagar.

## 2 DEFINITIONS OF TERMS, AS GIVEN IN THE ANNA UNIVERSITY ACT, 1978 AND THE ANNA UNIVERSITY (AMENDMENT) ACT, 2001

(a) "affiliated college" means any college or institution, situate within the University area and affiliated to the University and providing courses of study in engineering, technology and allied sciences for admission to the examinations for degrees, diplomas and other academic distinctions of the University and includes a college deemed to be affiliated to the University under this Act and includes an autonomous college;

(ac) "autonomous college" means any college designated as an autonomous college by or under the Statutes;

(ae) "college" means a college or institution established or maintained by or affiliated to the University and providing any course of study or training in engineering, technology and allied sciences for admission to the examination for degrees, diplomas and other academic distinctions of the University"

(b) "constituent college" means every college and institution specified in Schedules I, I-A and I-B

(c)"Dean" means the head of constituent college

(d)"Director" means the head of research and development or the head of every centre of Advanced Study, as may be prescribed;

(f) "Government" means the State Government(ha) "Principal" means the head of an affiliated college

- (i) "State" means the State of Tamil Nadu
- (j) "Statutes" "ordinances" and "regulations" means respectively the Statutes, Ordinances and Regulations of the University made or continued in force under this Act
- (k) "teachers" means such Deans, Directors, Professors, Assistant Professors, Readers, Lecturers and other like persons as may be declared by the Statutes to be teachers
- (l) "University" means the Anna University established under Section 3 of the Anna University Act, 1978
- (m) "University area" means the whole of the State of Tamil Nadu excluding the Annamalai Nagar as defined in clause [a] of Section 2 of the Annamalai University Act, 1928 [Tamil Nadu Act 1 of 1929]

## 3 PROVISIONS UNDER SECTION 29, CLAUSE XVI-a OF THE ANNA UNIVERSITY ACT, 1978 AS AMENDED IN THE ANNA UNIVERSITY (AMENDMENT) ACT, 2001.

29 Statutes - Subject to the provisions of this Act, the statutes may provide for all or any of the following matters, namely:[xvi-a] "the conditions of affiliation of colleges to the University";

#### 4 POWERS TO GRANT OR WITHDRAW AFFILIATION

4.1 Definition of Terms:

"academic programme" means any course of study offered by a college in engineering, technology and allied sciences for admission to the examinations for degrees, diplomas and other academic distinctions of the University.

4.2 Grant of Affiliation to Colleges

The University shall have the power to affiliate any academic programme in any college within the University area, for admission to the examinations for degrees, diplomas and other academic distinctions of the University.

#### 4.3 Suspension or Withdrawal of Affiliation

The University shall have the power at any time after adopting the set procedures, to suspend or withdraw the affiliation granted to an academic programme.

#### 5 CONDITIONS TO BE SATISFIED BY COLLEGES SEEKING AFFILIATION

#### 5.1 Society / Trust

A registered society / registered trust may alone be eligible to seek affiliation for academic programmes and it shall satisfy the conditions stipulated in sub Statutes 5.2 to 5.18 so far as they are not inconsistent with the regulations that may be stipulated by the AICTE from time to time.

5.2 Constitution of the Governing Council

The college shall be managed by a regularly constituted Governing Council. The composition, functions and other conditions pertaining to the Governing Council shall be as prescribed in the Regulations.

#### 5.3 Other Bodies of a College

The college shall have a duly constituted Planning and Monitoring Board as prescribed in the Regulations to formulate long term and short-term development programmes for the college to achieve academic excellence in tune with the policies of the University.

The college shall make provision to have an 'Alumni Association' to promote interaction between alumni and the college, as prescribed in the Regulations.

The college shall have a 'Training and Placement Cell' to take care of training and placement requirements of the students, as prescribed in the Regulations.

#### 5.4 Financial Stability

The college shall have adequate financial resources to meet effectively the annual maintenance and development expenditures of the college.

#### 5.4.1 Utilization of Funds and Audit

The amounts under any head collected by the college from the students shall be expended solely for the betterment and growth of the college and to provide facilities for the benefit of the students and staff of the college.

The college shall submit its statement of accounts duly audited by a Chartered Accountant to the University every year and also submit the financial details in the prescribed format as given in the Regulations.

#### 5.5 Land and Building Requirements

The college shall have adequate land and buildings as prescribed in the Regulations and shall use them only for its academic functions.

#### 5.6 Laboratories and Equipment

The college shall have the required laboratories and equipment to carryout experiments / studies, meeting the requirements of the curriculum and syllabi for the academic programme(s), as prescribed in the Regulations.

#### 5.7 Computer Centre

The college shall have a computer centre as a centralized service facility for the use of students and staff as prescribed in the Regulations.

#### 5.8 Library

The college shall have a library consisting of textbooks, reference books, journals and electronic reference facilities, as prescribed in the Regulations.

#### 5.9 Hostels

The college shall make adequate provision for the residence of its students in the campus, as prescribed in the Regulations.

The college shall have adequate number of teaching and non-teaching staff appointed on a full time basis, with qualifications and experience as prescribed in the Regulations.

Faculty shall be periodically appraised of their performance to facilitate promotions under Career Advancement Scheme and other faculty improvement / development programmes as prescribed in the Regulations.

The college shall evolve necessary establishment rules for service conditions for staff (Teaching and Non-Teaching), and rules for conduct and procedure for disciplinary proceedings. Such rules shall be made available to all the staff of the college. The college shall evolve a mechanism for grievance redressal of all the staff of the college.

#### 5.11 Health Centre

The college shall have a health centre manned by the required medical and paramedical staff, as prescribed in the Regulations.

#### 5.12 Co-Curricular Activities

The college shall have facilities to offer co-curricular activities such as National Cadet Corps (NCC), National Service Scheme (NSS), National Sports Organisation (NSO) and Youth Red Cross (YRC) along with adequate manpower and infrastructure facilities, as prescribed in the Regulations.

#### 5.13 Necessary Amenities

The college shall make available all necessary amenities, as prescribed in the Regulations.

#### 5.14 Discipline

The college shall have a duly constituted 'Discipline and Welfare Committee', as prescribed in the Regulations to maintain harmony and discipline in the college campus including the hostel premises and to redress all grievances of students.

#### 5.15 Maintenance of Registers and Records

The college shall maintain registers and records pertaining to academic, administrative and financial functions of the college, as prescribed in the Regulations and the same may be made available to the University, as and when required.

#### 5.16 Returns from the College

The college shall furnish such returns and other information as the University may require for monitoring the academic functions of the college.

#### 5.17 Conduct of University Examinations

The college shall provide all the required facilities, including sparing of the premises and the staff for the conduct of examinations, invigilation during examinations, and assisting the evaluation process, as directed by the University.

#### 5.18 Conduct of Academic Programmes, other than those Affiliated to University

Starting and conducting of "Study Centres" of Open Universities in the affiliated college premises shall be done only with the prior explicit approval of the University.

Academic programmes leading to the award of degrees, diplomas, certificates and other academic distinctions by other universities / institutions/ organisations shall not be conducted by the affiliated colleges.

#### 6 PRE-REQUISITE FOR APPLYING FOR AFFILIATION

Any new college seeking affiliation for its academic programme(s) or every college applying for affiliation for academic programme(s) or for variation in intake in an already affiliated programme(s) should produce the letter(s) of approval from the AICTE as per provisions of the AICTE Act.

#### 7 PROCEDURE FOR GRANT / WITHDRAWAL OF AFFILIATION TO A PROGRAMME

7.1 Filing Application to the University

Any college applying for affiliation for academic programme(s) or for variation in intake in an already affiliated programme shall apply to the University in the prescribed format within the time limit, as specified in the Regulations.

The college provisionally affiliated for an academic programme shall continue to apply in the prescribed format, every year for the minimum number of years prescribed for the completion of the programme to secure continuation of provisional affiliation.

#### 7.2 Inspection Fee

The college submitting the application for affiliation shall have to remit the prescribed inspection fee meant for processing and inspection of the college, as specified in the Regulations.

#### 7.3 Inspection Committee

On receipt of the application from the college for affiliation, for each of the academic programme(s) satisfying the pre-requisite for applying for affiliation, an Inspection Committee shall be constituted as per the Regulations. The committee shall inspect and submit a report to the University in the format specified in the Regulations.

#### 7.4 Standing Committee on Affiliation

The Standing Committee on Affiliation constituted as per the Regulations shall scrutinize the application for affiliation and review the reports of the Inspection Committees and make appropriate recommendations on affiliation of academic programme(s).

#### 7.5 Grant of Affiliation

The decision on grant of affiliation to an academic programme shall be made by the Vice-Chancellor taking into consideration the recommendations of the Standing Committee on Affiliation.

#### 7.6 Categories of Affiliation

#### 7.6.1 Provisional Affiliation

Whenever, an academic programme of a college is affiliated to the University for the first time, only provisional affiliation shall be granted for a period of one academic year. This process of granting provisional affiliation will be repeated every year for a minimum number of years prescribed for the completion of the academic programme subject to the college satisfying all the requirements for affiliation and thereafter, provisional affiliation may be granted at a stretch for a period of three academic years.

#### 7.6.2 Permanent Affiliation

A provisionally affiliated academic programme of a college shall be considered for permanent affiliation, only after three consecutive batches of students have completed their academic programme from the college. This consideration is subject to the satisfactory compliance of all the conditions prescribed by the University for the said programme during the periods of provisional affiliation. The college shall seek permanent affiliation for its provisionally affiliated programme(s) within a period of three years from the date of eligibility after satisfying all their requirements for permanent affiliation. The date of eligibility for a provisionally affiliated academic programme to apply for permanent affiliation is either the date on which three consecutive batches of students have completed their academic programme(s) from the college or the date on which this Statutes comes into force, whichever is later.

If the college fails to seek and qualify for permanent affiliation for the programme(s) within the said period, the provisional affiliation shall not be extended.

A college is said to be affiliated to the University if it offers provisional/permanent affiliated academics programmes.

A college is said to be permanently affiliated to the University, if the college has obtained permanent affiliation at least for three academic programmes.

#### 7.7 Affiliation Fee

Affiliation (Provisional / Permanent) shall be granted to any academic programme which is recommended for affiliation only on the remittance of the affiliation fee by the college as prescribed in the Regulations.

7.8 Temporary Suspension of Instructions in an Academic Programme

In case of three consecutive years of inadequate enrolment of students in any academic programme of study affiliated (Provisional / Permanent) to the University, it shall be open to a college to suspend the instructions in that programme with the prior permission of the University for a total period not exceeding three consecutive academic years. The instructions in that programme may be revived before the expiry of the suspension period with the prior permission of the University after applying and fulfilling all the requirements for affiliation. If the college fails to revive the instructions in the said programme as aforesaid, the college is deemed to have lost its affiliation to that programme.

7.9 Suspension / Withdrawal of Affiliation of an Academic Programme

The affiliation (provisional/permanent) granted to any academic programme(s) in a college may be suspended / withdrawn after adopting the procedures laid down in the Regulations, if the college fails to comply with the provisions made in this behalf or the college has failed to observe / implement any of the conditions of affiliation, or the college has conducted in a manner which is prejudicial to the interests of university education and/or students.

**Regulations for Affiliation (as amended on 21-02-2007)** (To read with the "Statutes for Affiliation")

## **REGULATIONS FOR AFFILIATION**

The AICTE Norms and Standards as amended from time to time in respect of Sections – R3, R5, R6, R8, R9, R10, R11, R12, R13 and R16 will be applicable for corresponding provisions of these Regulations.

R 1 GOVERNING COUNCIL OF A COLLEGE (vide Section 5.2 of the Statutes)\*

#### R 1.1 Composition

The Members of the Governing Council of a college shall be:

1 Chairman – A technical expert either an entrepreneur or an industrialist or an educationist of repute

2 to 5 – Members to be nominated by the Registered Society / Trust

6 & 7 - Two eminent professionals from the area of Engineering & Technology

8 & 9 – Two academicians of excellence.

10 - Faculty from the University / affiliated colleges

11 – Member Secretary – Principal (ex-officio)

In the case of aided colleges such other members as nominated by the State Government.

The governing of the Government colleges will be as per Government norms.

#### R 1.2 Term

The term of the members, except the ex-officio member, shall be for a period of three years.

#### R 1.3 Meeting and its Venue

The Governing Council shall meet at least twice a year. All such meetings shall be held within the respective college campus. In the absence of the Chairman, the members can elect a pro-term Chairman from amongst the members present for that meeting. It shall be the responsibility of the Member Secretary to ensure that the meetings are held regularly. R 1.4 Quorum

The quorum for the meeting shall be 40% of the total members of the Governing Council.

#### R 1.5 Functions

The Governing Council besides being the supreme administrative authority of the college, shall have the following additional functions:

To monitor the academic and other related activities of the college

To consider the recommendations of the Staff Selection Committee

To consider the important communications, policy decisions received from the University, Government, AICTE, etc.

United to the students and faculty development programmes

To consider the recommendations of the Planning and Monitoring Board of the college for implementation

To pass the annual budget of the college.

<sup>\*</sup> Subject to the outcome of W.P.M.P. No. 36292 of 2004 in W.P. No. 29897 of 2004.

#### R 2 PLANNING AND MONITORING BOARD (vide Section 5.3 of the Statutes)

#### R 2.1 Composition

The Planning and Monitoring Board (PMB) shall have a minimum of seven members, including the Chairman. All other members will be nominated by the Chairman except the University nominee. The constitution of the PMB will be as follows:

- 1 Principal of the College Chairman
- 2 & 3 Two senior faculty members of the college
- 4 Senior faculty from University / other college.
- 5 & 6 Two industrial experts in the field of Engineering / Technology
- 7 An expert in the area of Architecture / Civil Engineering

The Planning and Monitoring Board meeting shall be convened not less than twice a year and the interval between two consecutive meetings should not be more than six months.

R 2.2 Functions

To review the academic and other related activities of the college

U To review the students and faculty development programmes

Union To visualize and formulate perspective plans for the development and growth of the college

To formulate Master Plan for campus development, facilitating implementation of the provision of the perspective plan

To draw new schemes of development for the college

To plan for resource mobilization through industry interaction, consultancy and extra-mural funding

To promote research and extension activities in the college campus

To promote teaching innovations and student placement programmes

To plan for sustaining the quality of education, quality improvement and accreditation of the college

To recommend schemes to promote participation of academic departments in community development activities in the region

Use To consider such other activities for furtherance of academic excellence

R2A COMPLAINTS CUM REDRESSEL COMMITTEE

#### **R2A.1** Composition

The composition of the complaints cum redressel committee shall be:

1. Headed by a senior lady member.

2. 50% of the members represented by ladies.

3. A third party either an NGO or an outside activist who is familiar with the issue of sexual harassment in work place.

#### **R2A.2** Functions

1. To enquire the complaints received from the aggrieved women in respect of sexual harassment.

2. To recommend to the principal of the college, the penalty to be imposed.

The Principal upon receipt of the report from the committee shall, after giving an opportunity of being heard to the person complained against, submit the case with the committee's recommendation to the Governing Council of the colleges.

The Governing Council shall confirm with or without modification the penalty recommended after duly following the prescribed procedure.

R 3 TRAINING AND PLACEMENT OF STUDENTS (vide Section 5.3 of the Statutes)

The Training and Placement Cell shall be headed by an officer of the cadre of Professor / Asst Professor who is responsible for developing linkages between the college and industry / corporate bodies. This Cell shall have minimum facilities such as conference hall, interview room, OHP / LCD projectors and audiovisual facilities.

#### R 4 ALUMNI ASSOCIATION (vide Section 5.3 of the Statutes)

An Alumni Association shall be formed as soon as the first batch of students has completed the academic programme to promote active interaction between the alumni and the college.

#### R 5 FINANCIAL STABILITY (vide Section 5.4 of the Statutes)

The college shall fulfill the prescribed norms of the financial requirements for establishing the college (**Annexure 1**).

#### R 6 LAND AND BUILDING REQUIREMENT (vide Section 5.5 of the Statutes)

R 6.1 Land:

The minimum requirement of land for a college shall satisfy the prescribed norms (**Annexure 1**). The land must be in the absolute ownership and possession of the applicant Registered Society / Trust through a sale deed. In addition to the above, the Registered Society / Trust shall produce the following documents:

- A certificate under section 37-B of the Tamil Nadu Land Reforms (Fixation of ceiling on Land) ACT, 1961\*
- ii. Land conversion certificate from the competent authority
- iii. Land use certificate from the competent authority for using the land for educational purpose

\* Subject to the outcome of the pending legal proceedings in W. A. No. 3553 of 2002 etc.

#### R 6.2 Building:

The building area consisting of academic / instructional area, administrative area, amenities area and residential area shall be as per the prescribed norms (**Annexure 2**).

The academic / instructional area consists of classrooms, tutorial rooms, drawing halls, laboratories, workshops, computer centre, library, instructional resource centre, seminar hall.

The administrative area consists of Principal's room, visitors lounge, staff room, college office, departmental offices, stores and conference room.

The amenities area consists of canteen, common rooms, rest rooms, recreation centre, hobby centre, gymkhana, alumni association, co-operative stores, health centre, telephone booth, post office, bank extension counter, and offices of NCC, NSS, NSO and YRC.

The residential area consists of student and staff hostels, staff quarters and guesthouse.

All the buildings shall be designed and built adopting the norms prescribed in the National Building Code and local Building Byelaws, after acquiring the necessary planning and building permissions from the appropriate authorities. Necessary structural stability certificate for all the buildings / structures shall be obtained from state PWD officials, not below the rank of a Superintending Engineer. The buildings shall be functionally suitable and preferably be aesthetically designed. Provision of sufficient number of staircases and lifts / ramps shall be provided. Appropriate amenities shall be made available for the convenience of physically challenged students and staff. Sufficient number of fire fighting units shall be provided. Standby generator shall also be provided to ensure uninterrupted power supply to the laboratories and essential services.

#### R 6.3 Staff Residences (vide Section 5.5 of the Statutes)

Residential accommodation shall be made available within the campus for the Principal, Heads of Departments, Hostel Wardens, and essential staff including Caretaker, Electrician, Driver, Water supply pump operator, one paramedical staff and Security staff. Norms for building space will be as prescribed (**Annexure 3**).

#### R 7 LABORATORIES AND EQUIPMENT (vide Section 5.6 of the Statutes)

Every college shall provide necessary laboratories and equipment prescribed for offering their programmes as stipulated by the university. This will be based on the recommendations of the respective Board of Studies of the University. (for space requirement see **Annexure 2**)

#### R 8 COMPUTER CENTRE (vide Section 5.7 of the Statutes)

Every college shall have a computer centre as a centralized service facility for the use of students and staff of the college. The computer centre shall have computer system with CAD facilities, a high-speed printer and a plotter. Number of terminals with P IV Processor: Student ratio shall be 1:4, 1:6, 1:2 and 1:2 for B.E./ B.Tech., B.Arch., M.C.A. and M.B.A. programmes respectively.

Number of terminals on LAN / WAN shall be 50% of the terminals required.

Number of Printers required shall be 10% of the terminals required.

Number of System software and Application software shall be 2 and 8 and 2 and 4 for Engg./Tech. and B.Arch., M.B.A. M.C.A. programmes respectively.

The Head of the Department of Computer Science and Engineering discipline shall also be the Head of the Computer Centre, if the discipline exists in the College. If not, one of the Electrical / Electronics Engineering Heads of the Department will head the centre.

#### R 9 LIBRARY (vide Section 5.8 of the Statutes)

Every college shall have a central library with books and journals as prescribed and shall also update the library periodically as per the recommendations of the University including setting up a digital library (**Annexure 4**).

#### R 10 HOSTELS (vide Section 5.9 of the Statutes)

Every college shall provide necessary hostel facilities for its students, both boys and girls, as prescribed and will also consider providing a staff hostel (**Annexure 5**).

## R 11. STAFF PATTERN, QUALIFICATION AND SELECTION PROCEDURE (vide Section 5.10 of the Statutes)

#### R 11.1 Staff Pattern

Every college shall have the following categories of staff:

- i. Principal and teaching faculty
- ii. Workshop Staff
- iii. Technical Supporting Staff
- iv. Library and Computer Centre Staff
- v. Administrative Staff
- vi. Maintenance staff and other Miscellaneous staff

#### R 11.2 Faculty

R 11.2.1 Staff : Student Ratio

The overall staff to student ratio shall not exceed the 1:15 for all the programmes except for B.Arch. programme. For B.Arch. programme, it shall not exceed 1:10.

The teacher requirement for Group / Class sizes of formal teaching shall be as given below:

Theory lecture class	one teacher for a maximum of sixty students
Tutorials	one teacher for a maximum of $15 - 20$ students
Lab. Practical / Workshop	one teacher for a maximum of 15 students
Drawing	one teacher for a maximum of 20 students
Project work	one teacher for a maximum of 9 students

It is desirable to have 10% staff in excess of the above specification to enable a college to sponsor teacher for Staff Development Programmes and to allow teachers to avail leave to which they are entitled.

#### R 11.2.2 Faculty Cadre

The faculty cadres shall be as follows:

- i. Lecturer / Lecturer (Senior scale) / Lecturer (Selection Grade)
- ii. Assistant Professor
- iii. Professor
- iv. Principal

In order to cater to instructional requirements, particularly in specialized subjects, Visiting Faculty may be appointed. However, the college shall not depend on visiting / part-time faculty on continuous basis in lieu of essential regular faculty.

In respect of the requirement of number of Professors, the Principal can be shown as a professor in the Engineering / Technology department concerned.

The visiting faculty should not be included for the calculation of number of faculty available in the department concerned.

#### R 11.2.3 Faculty Structure and Cadre distribution

#### 🖖 Under Graduate Programme

The faculty requirement for Science and Humanities and General Engineering to support Engineering and Technology programming shall be calculated based on the total sanctioned intake for the I year of all the B.E./B.Tech. Programmes.

The faculty requirement for core Engg. /Tech. for B.E. / B.Tech. programmes shall be calculated based on the total sanctioned intake in the II, III and IV year of the programme concerned.

The faculty requirement for B.Arch./B.Arch (Interior Design), MBA, MCA, M.Sc., B.Sc., programmes shall be calculated based on the total sanctioned strength of all the years of the programmes concerned.

The required cadre ratio of Professor : Assistant Professor : Lecturer shall be 1: 2 : 6 for all the programmes.

There shall be one Librarian for the Central Library for the college.

There shall be one Director of Physical Education for the Division of Physical Education for the college.

#### Post Graduate Programmes (Engineering / Technology / Architecture Disciplines):

There shall be exclusively two Professors and two Assistant Professors or one Professor and three Assistant Professors for each programme. In addition, the services of four Lectures from the respective under graduate programme can be shared for the post graduate programme. All the faculty members appointed for the postgraduate programme(s) shall be from the relevant area of specialization.

#### M.C.A./M.B.A. Programme(s):

The Required ratio for Professor: Assistant Professor: Lecturer shall be 1: 2 : 6.

#### B.Sc./ M.Sc. Programmes

The required Staff : Students ratio shall be 1:15 and the cadre ratio for Professor: Assistant Professor: Lecturer shall be 1:2:6 for B.Sc./ M.Sc. programmes.

#### R 11.2.4 Faculty Selection Procedure

#### Direct Recruitment

The post of Principal shall be filled by direct recruitment only through an open selection process by advertising in national and regional dailies. Composition of the Selection Committee shall be as given in **Annexure 6**.

The sanctioned post of Lecturer, Assistant Professor and Professor for the college shall be recruited only through an open selection process by advertising in national and regional dailies. Composition of the Selection Committee for such faculty positions shall be as per **Annexure 6**.

#### Career Advancement Scheme

The promotions under the Career Advancement Scheme (CAS) for the posts of Lecturer (senior scale), Lecturer (Selection Grade), Assistant Professor, Professor and other cadres shall follow the guidelines (**Annexure 7**). All the promotions under the Career Advancement Scheme shall be on "insitu" basis and therefore the work allotment (teaching load etc) will remain the same after promotions. The composition of the Selection Committee for the CAS is the same as that of direct recruitment (**Annexure 6**).

The orders pertaining to appointment as well as relieving/ termination of staff members shall be communicated to the University for approval.

#### R 11.3 Qualification, Experience and Scales of Pay

#### **Direct Recruitment**

Minimum qualification, experience, scales of pay and age of superannuation for the Principal and other faculty positions in various disciplines in the college shall be as per the prescribed norms (**Annexure 8**).

#### R 11.4 Non-Teaching Staff

Staff such as Technical, Library, Physical Education, Computer Centre, Laboratory, Department, Administrative and other non-teaching staff of the College shall be appointed as per the norms (Annexure 9). The procedure for appointment and scales of pay for various categories of posts shall be as communicated by the University from time to time.

#### R 12 FACULTY TRAINING AND DEVELOPMENT (vide Section 5.10 of the Statutes)

Teachers shall be provided with opportunities to improve their qualifications through quality improvement programmes. The opportunities shall be provided for pedagogy and professional training for a period of four weeks in every three years. The college concerned shall depute its teachers on duty with salary and shall bear all the expenses for such training programmes as recognized by the University. Training of teachers is expected to contribute both towards their professional development and improvement in career prospects.

#### R 13 PERFORMANCE APPRAISAL (vide Section 5.10 of the Statutes)

A performance appraisal system for the faculty shall be set-up, well integrated with institutional functioning and this should lead to the identification of individual training and development needs. This should also enable the identification of faculty members whose performance is outstanding. Such performance and excellence shall be well recognized and rewarded. All colleges shall introduce a suitable transparent performance appraisal system

#### R 14 HEALTH CENTRE (vide Section 5.11 of the Statutes)

Every college shall have a health centre with the basic infrastructure to handle emergency medical needs of students and staff and to meet the periodical medical check up. The centre shall have a medical officer (part-time) and paramedical staff.

#### R 15 CO-CURRICULAR ACTIVITIES (vide Section 5.12 of the Statutes)

Every college shall have offices of NCC / NSS / NSO / YRC with qualified staff to maintain such units adhering to the rules stipulated by the appropriate authorities. They shall co-ordinate their activities with the respective coordinators at the University in respect of their activities and submission of periodic reports.

#### R 16 NECESSARY AMENITIES (vide Section 5.13 of the Statutes)

Every college shall provide well maintained necessary amenities such as Canteen, Students' Activity Centre, Open Air Theatre, Vehicle Parking Stands, Play Field, Guest House, Co-operative Stores, Transport Facilities for Students and Staff (wherever required), Reprographic Facilities, Telephone Facilities, Drinking Water Facilities and Toilets (for space requirements see **Annexure 2**).

To meet the needs of the guests visiting the institution for official work and the parents visiting their wards, it will be necessary to have a guest house.

There shall be an Estate Office headed by an Estate Officer with adequate supporting staff for carrying out the up-keep and maintenance of the campus.

#### R 17 DISCIPLINE AND WELFARE COMMITTEE (vide Section 5.14 of the Statutes)

The guidelines for the composition and functions of the Discipline and Welfare Committee are given in **Annexure 10**.

#### R 18 REGISTERS AND RECORDS (vide Section 5.15 of the Statutes)

The college shall maintain the requisite registers and records as specified in Annexure 11.

#### R 19 RETURNS FROM THE COLLEGE (vide Section 5.16 of the Statutes)

The college shall furnish the requisite returns to the University as specified in **Annexure 12**.

#### R 20 FORMAT OF APPLICATION FOR AFFILIATION (vide Section 7.1 of the Statutes)

The application format and the documents required for applying for affiliation of an academic programme / variation in intake in an already affiliated programme are given in **Annexure 13**. The last date for the receipt of the completed application will be as intimated by the University.

#### R20A Conditions for consideration of application

- 1. The request for affiliation for the courses with proposed intake other than mentioned in the application will not be considered at the later stages for the academic year concerned.
- 2. If the approved curricula and syllabi of the proposed programme are not available at the time of application, the programme will not be considered for affiliation.
- 3. For the architecture programme(s), approval from the Council of Architecture shall also be obtained for the academic year(s) concerned.
- 4. For B.E.(Marine Engineering), approval from the Directorate General of Shipping shall also be obtained for the academic year(s) concerned.
- 5. In respect of B.Sc./ M.Sc. programmes, only continuation of provisional affiliation will be considered for the existing programmes and the request for affiliation of new programmes will not be considered. In case of colleges having basic science departments recognized as research centres by the University, affiliation for offering relevant new P.G. programmes in these departments will be considered.

#### R 21 INSPECTION FEE (vide Section 7.2 of the Statutes)

The college submitting the application for affiliation of academic programme(s) shall remit the following inspection fee along with the application towards processing and inspection charges:

i. Inspection fee for each additional academic programme	=	Rs. 25,000/-
ii. Inspection fee for each of the already affiliated programme with increase in intake	=	Rs. 25,000/-
iii. Inspection fee for each of the already existing programme with existing / reduction in intake	=	Rs. 12,500/-
iv. Inspection fee for permanent affiliation for each of the already affiliated programme with existing / reduction / increase in intake	=	Rs. 25,000/-

#### R 22 INSPECTION COMMITTEE FOR AFFILIATION (vide Section 7.3 of the Statutes)

Inspection Committee for Affiliation of academic programme(s) shall be constituted by the Registrar from out of the panel of experts approved by the Vice-chancellor from time to time for considering the grant of affiliation for the academic programme(s). The Inspection Committee shall visit the college and verify the correctness of the particulars furnished by the college in the application and also verify whether all the affiliation conditions laid down by the University are satisfied. The committee shall submit a report to the University in the prescribed format. The Committee shall have a minimum of 2 members, preferably from among senior faculty members of the University / colleges, or former faculty members of the University / colleges, or experts from the industries / organizations.

In case of exigency a one-man Inspection Committee may be constituted to verify the compliance report submitted by the college.

The committee shall submit a report to the university in the format as specified in Annexure 14.

#### R 23 STANDING COMMITTEE ON AFFILIATION (vide Section 7.4 of the Statutes)

The Standing Committee on Affiliation (SCA) shall be constituted by the University. It shall consist of 5 members as detailed below:

United the committee - A senior academician

- Three members from faculty of the University/academicians
- Wember Secretary Director (Centre dealing with affiliation matters in the University)

The term for the members of the committee shall be 3 years.

The Standing Committee on Affiliation shall scrutinize the applications received from i) the colleges and ii) the reports received from the Inspection Committee on Affiliation and consolidate its recommendations.

The SCA may seek further clarification, if necessary, from the Inspection Committee and / or college/Institution and may make appropriate recommendations on affiliation. The committee shall submit its final recommendations to the Vice-Chancellor.

#### R 24 AFFILIATION FEE (vide Section 7.7 of the Statutes)

The college shall remit the following non-refundable, affiliation (provisional / permanent) fee on receipt of intimation of grant of affiliation (provisional / permanent) from the university:

	Provisional	Affiliation		Permanent	Affiliation
Existing Pro	ogramme(s)	Additional P	rogramme(s)	Existing Pr	ogramme(s)
Intake	Fee	IntakeFeeIntakeUp to a sanctioned strength of 60Rs.1,50,000/- sanctioned strength of 60, irrespective of variation in intake.Up to a sanctioned strength of 60, irrespective of variation in intake.		Intake	Fee
With existing / reduction in intake	Rs.25,000/-			Rs.3,00,000/-	
With existing intake + Increase in intake up to 30	Rs.50,000/-	From a sanctioned intake of 61 to 120	Rs.2,25,000/-	From a sanctioned intake of 61 to 120, irrespective of variation in intake.	Rs.4,50,000/- less permanent affiliation fee already paid for the sanctioned intake upto 60
With existing intake + Increase in intake above 30 and upto 60	Rs.75,000/-	From Sanctioned intake of 121 to 180	Rs.3,00,000/-	From a sanctioned strength of 121 to 180, irrespective of variation in intake	Rs.6,00,000/- less permanent affiliation fee already paid for the sanctioned intake upto 120.
With existing intake + Increase in intake above 60 and upto 90	Rs.1,00,000/-	From a sanctioned intake of 181 to 240	Rs.3,75,000/-	From a sanctioned strength of 181 to 240, irrespective of variation in intake	Rs.7,50,000/- less permanent affiliation fee already paid for the sanctioned intake upto 180.

# R 25 PROCEDURE FOR SUSPENSION OF AFFILIATION OF AN ACADEMIC PROGRAMME (vide Section 7.9 Of the Statutes)

The University may suspend the affiliation of any academic programme (provisional / permanent) in a college, provided the University is satisfied that there are prima-facie evidences after preliminary investigations by an University authorized inquiring committee to verify the authenticity of the complaints received and / or non compliance of statutory provisions pending final decisions regarding withdrawal of affiliation. During the period of suspension of any such academic programme the college shall not admit fresh students to the said programme.

# R 26 PROCEDURE FOR WITHDRAWAL OF AFFILIATION OF AN ACADEMIC PROGRAMME (vide Section 7.9 of the Statutes)

The University may withdraw the affiliation (provisional / permanent) of an academic programme(s) of a college, for such period that it may deem fit, provided there are proven evidences for gross violation of statutory requirements of affiliation norms and / or the college has conducted itself in a manner which is prejudicial to the interest of the University education as revealed after detailed inquiry conduced by a duly appointed committee by the University. The students on rolls are liable to be transferred to other affiliated colleges. No fresh students shall be admitted to that particular academic programme (s) by the college.

## Annexure 1

## Norms for Land and Funds

## (vide Section R 5 & R 6.1)

The norms for land and funds for engineering colleges are as follows:

	Requirement of Land (i	Requirement of Fixed Deposit	
Others Metro cities including state capitals Metro cities (Delhi, Kolkatta, Chennai and Mumbai)		(Rs. in Lakhs)	
10 acres * (2.5 acres)	5 acres (2 acres)	3 acres (1 acre)	50

\* Figures within the brackets indicate the norms for colleges offering only Architecture & Planning programme(s)

The land must be in absolute ownership of the applicant Trust / Society through a sale deed. Lease deed shall not be acceptable as a proof of ownership of land, except when the lease land is allotted by the Government.

The requirement of land varies with location of the proposed college. It shall be the responsibility of the Trust / Society to prove the proposed location of the college, if the concession for land is sought for.

Under no circumstances, the college could build their infrastructure at a place, which is different from the location approved by the AICTE

## Annexure 2

### **Norms for Buildings**

## (vide Sections R 6.2, R 7 & R 16)

#### 1. General

The ratio of plinth to carpet area for the normal building may be taken as 1.4, while that for Workshop type of space this ratio will be 1.25.

#### 2. Building Space for Instructional Area

Considering the requirements and the sizes of classroom furniture and drawing tables normally used in the college, the following carpet area norms per student are prescribed for class rooms of different sizes and drawing halls.

Type of Rooms	Carpet Area Requirement in sqm. student		
Classification of Size	Minimum	Desirable	
Class rooms for 15-20 students	1.3 1.5		
Class rooms for 30-40 students	1.2	1.4	
Class rooms for 60 students	1.1	1.3	
Drawing / examination halls for 60 students	2.5	2.8	

Every classroom shall have facilities to use Over Head Projector (OHP), LCD projector, VCR, TV and Video Cassettes.

**Note:** The programme structure of any engineering college degree program will include lectures, tutorials, drawing and design work, laboratory work and seminars / colloquium. The college must have adequate building areas for all these instructional activities.

The student strength in a theory class shall not exceed 60. The class shall be divided into smaller groups of 30 and a teacher is assigned to each group, in case of tutorial work. These smaller groups shall be accommodated in separate rooms. The seminars / colloquium of the senior students shall be conducted with the entire class of a particular discipline.

In the case of workshop practice classes for junior students, which emphasize the skills component of the training, the classes shall be divided into smaller groups and work assigned in different shops. Considering this specific nature of training, the workshop practice classes of junior students can have maximum batch strength of 20 students. However, senior class (i.e. V, VI, VII & VIII semester) shall have batch strength of 15 students as in the case of any other laboratory.

#### 2.1 Number of Drawing Halls

One drawing hall of 175 sq.m. is needed up to the intake of 240 students in first year. If the intake exceeds 240 students per year, then two such halls be provided. The computer graphic laboratories is to be provided separately in the Computer Centre for Engineering & Technology students. For architecture programme, there shall be 5 studios with an area of 200 sq.m. each. For M.B.A. programme, there shall be 3 seminar / conference room with a area of 50 sq.m. each.

#### 2.2 Room size for Theory Classes, Tutorial Work and Drawing Halls

The carpet area requirement of the classroom and tutorial room depends upon the number and type of seating arrangement for the students and provisions for a platform, a table and a chair for the teacher. In an Engineering college, very frequently students make use of a data book, a calculator and notebook. As such the student will require slightly more spacious desk as compared to the requirements of classes for students of general education. Further, as the space required for the teacher will remain the same irrespective of the class strength, the per student requirement of carpet area will increase with the decrease in class strength.

Number of classrooms required for the college shall be equal to

[Total sanctioned intake for all the years concerned for all the programmes  $/40/60^*$ ] x 0.75 Number of tutorial rooms required for the college shall be equal to

[Total sanctioned intake for all the years concerned for all the programmes /  $40/60^*$ ] x 0.5 \*40 for Arch. and Planning and 60 for other programmes.

The drawing halls will have to be provided with drawing tables and stools for the students. The tables must be arranged with passages so that the teacher can approach the drawing table of each student. The drawing halls shall also be provided with a platform for the teacher.

#### 3. Laboratories

For B.E./B.Tech., B.Arch and M.C.A. programmes, the area of each laboratory shall be 250 sq.m. for a batch of 30 students, 360 sq.m. for a batch of 40 students and 150 sq.m. for a batch of 30 students respectively.

**Note:** The above areas do not include the rooms of the teaching staff even though such staff rooms are attached to the laboratories. However, they do include the sitting space for the technical supporting staff and storage of laboratory consumables and instruments.

#### 4. Workshops

The workshop of an engineering college must have the following shops:

- Carpentry including Pattern Shop
- **Fitting Shop**
- Smithy Shop
- Welding Shop
- Painting and sheet metal shop
- Foundry shop
- Machine shop
- Workshop stores

To accommodate the equipment and infrastructural facilities, to organize the above mentioned course work, to provide facilities for student projects and maintenance of equipment, the workshop of an engineering college must have a minimum carpet area of 900 Sq.m. For B. Arch programme, the area of workshop shall be 100 sq.m.

#### 5. Other space in the Department

In addition to the teaching space, the norms for building requirement in a teaching department for other purposes are as given below:

	Carpet Area (Sq. m.)
Head of Department	20
Department Office	25
Faculty rooms	10 per teacher
Library (Departmental)	30
Seminar Room	30
Store	10
Drawing / Reprographic facilities	20

6. Building Space for Administrative Office

The Space to be provided for administrative office in the college will be as per norms given below:

	Carpet area (Sq. m.)
Principal's office	30
Strong Room	20
Conference room	100
Reception office	25
Main office	300( for an intake of 240 students per year)
Administrative office	20
Maintenance & Estate office	40

#### 7. Students' Activity Centre

This will consist of provisions for the indoor games, gymnasium, dramatics and alumni centre etc. The norms for building are 0.25 sq.m. per student.

#### 8. Open Air Theatre

It is desirable to have an open air theatre with an area of about 4000 sq.m. open space along with a 50 sq.m. room and a small raised platform for dais.

#### 9. Toilet Blocks

The college building and the hostels shall be provided with adequate number of toilet blocks with urinals, lavatories and washbasins. It shall be necessary to provide adequate toilet facilities for women in the college building.

The norms to be adopted for toilet area shall be as follows:

Education Building	:	10 sq.m. for each unit of 100 students
Hostel	:	75 sq.m. for each unit of 120 students

#### 10. Play Fields

The college must be provided with play fields so that the students can have adequate participation in games and sports for healthy and constructive activities within the campus. The facilities anticipated are athletics-track, cricket field, a football field, a hockey field, a volleyball court, a basket ball court, four badminton courts and a tennis court.

#### 11. Other Amenities

The norms for space (carpet area) for other miscellaneous amenities are as given below:

	Sq.m.
Canteen	100
Cooperative stores	100
NSS / NSO / NCC/YRC Office	100

## Annexure 3 Norms for Staff Residences (vide Section R 6.3)

The building space for staff residences will be as per norms given below:

Principal	140 sq.m.
Professor	100 sq.m.
Asst. Professor / Lecturer	80 sq.m.
Class III staff	30 Sq.m.
Class IV staff	20 sq.m.

## Annexure 4 Norms for Central Library (vide Section R 9)

The central library for an intake of 240 students will have a carpet area of 400 sqm.

#### **Books and Journals**:

#### a) Books:

No. of UG programmes (Existing + additional programmes for which affiliation is sought)  $N_1 = N_0$ . of PG programmes  $N_2 = N_2$ 

	Science & Humanities	00	Engg. / Tech., Arch. & Plan., Management and Computer applications				
	No. of volumes (M <sub>1</sub> )	No. of titles (T)	No. of volumes (M <sub>2</sub> ) If the year of establishment of the college is			No. of volumes added for 2006-07	Total no. of volumes $(M_1+M_2+M_3)$
			2005- 06	2004- 05	2003- 04 and earlier	(M <sub>3</sub> )	
Required	1000	$250N_1 + 150 N_2 =$	4T =	4T + 1000 =	4T + 2000 =	1000	
Available	1	-					
Deficiency %							

#### b) Journals:

Degree	Programme	National journal			International journal		
		R	А	% D	R	А	% D
					(Refer		
		norms)			norms)		
	Degree	Degree Programme		R A (Refer	R A % D (Refer	R     A     % D     R       (Refer     (Refer	R     A     % D     R     A       (Refer     (Refer     (Refer

## Norms:

Sl.	Programmes	Technology Journals	
Sl. No.		National	International
1.	B.E./B.Tech.	6	6
2.	M.E./M.Tech.	-	1
3.	Arch.	5	5
4.	M.B.A.	15	15
5.	M.C.A.	6	6

## Annexure 5 Norms for Hostels (vide Section R 10)

#### 1. Students' Hostel

If the college is located within 20 km. of a large city, hostel accommodation will be provided for 25% of boys and 50% of girls on enrollment. In case of other locations, hostel accommodation will be provided for 50% of boys and 100% of girls on enrollment.

The boys' hostel will be made as a unit for 120 students while there is no minimum for a girls-hostel unit. The first year students will be accommodated in triple seated rooms while others will be given single seated rooms. The norms for the room areas will be as below:

	Carpet area (sq.m)
Single room	9
Triple seated room	20

The other building space needed in a hostel unit will be as per norm given below:

	Carpet area (sq.m.)	
Kitchen and Dining Hall	200	
Indoor games cum Common hall	150	
Medical room	50 (for all hostels)	
Canteen	50	
Warden office	18*	
Guest rooms (2 nos.)	18*	

(\* Four additional rooms of 9 sq.m. each within the hostel blocks)

2. Teachers' Hostel

It is desirable to have a hostel type accommodation for 25% strength of the teachers with the norm of 30 sq.m. carpet area per teacher inclusive of an attached toilet room.

## Annexure 6

## Constitution of Staff Selection Committee for Career Advancement / Direct Recruitment of Faculty (vide Section R 11.2.4)

#### 1. Selection Committee for Lecturer/Asst. Professor/Professor

The following committee is recommended for all the levels of promotion/direct recruitment.

- Schairperson of the Governing Council
- Head/Chairperson of the Department not below the rank of Professor
- Two subject experts from the University/College
- Two subject experts from the industry/organisation
- The Principal of the concerned College

#### Note:

It least four members including two outside experts must constitute the quorum.

#### 2. Selection Committee for Principal

The following committee is recommended for the selection of Principal :

- Schairperson of the Governing Council
- Three subject experts not below the rank of Principal from the University/College
- Three subject experts from the industry/organisation

#### Note:

Section 4.1 In the section of the se

The process of selection should include the following in addition to other characteristics decided by the Selection Committee :

- a) Assessment of aptitude for teaching and research.
- b) Ability to communicate clearly and effectively.
- c) Ability to analyze and discuss.

## Annexure 7

## Guidelines For Career Advancement Scheme (vide Section R 11.2.4)

The Promotions under Career Advancement Scheme will follow the guidelines given below. All the promotions in career advancement will be on 'in-situ' basis and therefore the work allocation (teaching load, etc.) will remain the same after promotions.

1. General

Minimum length of services for eligibility to move into the grade of Lecturer (Senior Scale) would be four years for those with Ph.D. five years for those with M.Phil, M.Tech. and six years for the others at the level of Lecturer, and for eligibility to move into the Grade of Lecturer (Selection Grade)/Asst. Professor, the minimum length of services as Lecturer (Senior Scale) shall be uniformly five years.

For movement into grades of Asst. Prof. and above, the minimum eligibility criterion would be Ph.D. Those without Ph.D. can go up to the level of Lecturer (Selection Grade).

An Asst. Professor with a minimum of eight years of service in that grade will be eligible to be considered for appointment as a Professor.

The Selection Committees for Career Advancement shall be the same as those for Direct Recruitment for each category.

#### 2. Lecturer (Senior Scale)

A Lecturer will be eligible for placement in a senior scale through a procedure of selection, if she/he has:

- (i) Completed 6 years of service after regular appointment with relaxation of one year and two years, respectively, for those with M.Phil. M.E./M.Tech. and Ph.D.
- Participated in summer / winter schools of total of 4 weeks or engaged in other appropriate continuing education programmes of comparable quality as may be specified or approved by the All India Council for Technical Education (AICTE).
- (iii) Consistently satisfactory performance appraisal reports.

Scale of pay : Rs. 10,000 – 325 – 15,200

#### **3.** Lecturer (Selection Grade)

Lecturers in the Senior Scale who do not have a Ph.D. degree or equivalent published work, and who do not meet the scholarship and research standards, but fulfils the other criteria given below for the post of Asst. Professor, and have a good record in teaching and, preferably, have contributed in various ways such as to the corporate life of the institution, examination work, or through research & extension activities, will be placed in the Selection Grade, subject to the recommendations of the Selection

Committee, which is the same as for promotion to the post of Asst. Professor. They will be designated as Lecturers in the Selection Grade. They could offer themselves for fresh assessment after obtaining Ph.D. and/or fulfilling other requirements for promotion as Asst. Professor and if found suitable, could be given the designation of Asst. Professor.

Scale of pay : Rs. 12,000 - 420 - 18,300

#### 4. Assistant Professor

A lecturer in the Senior Scale will be eligible for promotion to the post of Asst. Professor if she/he has

Lecturers in the senior scale having Ph.D. degree with 3 years of experience in teaching /industry/research at the level of Lecturer (including the period passed in the grade of Lecturer Senior Scale) or equivalent.

OR

Lecturers in the Senior Scale having Master's degree with 5 years of experience in teaching/industry/research at the level of Lecturer (including the period passed in the grade of Lecturer Senior Scale) or equivalent. Such candidates will be required to obtain Ph.D. degree with in a period of 7 years from the date of his/her promotion to the post of Assistant Professor.

Made some mark in the area of scholarship and research as evidenced by self-assessment, reports of referees, quality of publication, contribution to education innovation, design of new courses and curriculum and extension activities.

After placement in the Senior Scale participated in winter / summer school (short-term courses) of total duration of 4 weeks, or engaged in other appropriate continuing education programmes of comparable quality as may be specified/approved by the AICTE.

Possesses consistently good performance appraisal reports.

Promotion to the post of Asst. Professor will be through a process of selection by a Selection Committee to be set up under the Statutes / Ordinances of the concerned Institute / University or other similar committees set up by the appointing authorities.

Scale of pay : Rs. 12,000 - 420 - 18,300

#### 5. Professor

In addition to the sanctioned position of Professors, which must be filled in through direct recruitment through all India advertisements, promotions may be made from the post of Asst. Professor after 8 years of service as Asst. Professor.

The Selection Committee for promotion to the post of Professor should be the same as that for direct recruitment. For the promotion from Asst. Professor to Professor, the following method of promotion may be followed.

The candidate should present herself/himself before the Selection Committee with some of the following:

Self-appraisal reports (required).

Research contribution, books, articles, etc published. (At least four papers in Journals required)

The best three written contributions of the teacher (as defined by her/him) may be sent in advance to the Experts to review before coming for the selection. The candidate should be asked to submit these in 3 sets with the application.

Seminars / Conferences attended. Must have attended at least 4 seminars / conferences at national or international level or must have attended summer / winter schools (short- term courses) of total duration of 4 weeks.

Significant contribution to teaching / academic environment / institutional corporate life.

Sector Adequate Extension and field outreach activities.

Development of course material / monographs.

Participation in Continuing Education Programme

Solutions Any other academic contributions

The requirement of consistently satisfactory performance appraisal reports, shall be the mandatory requirement for Career Advancement from Lecturer to Lecturer (Senior Scale) and from Lecturer (Senior Scale) to Lecturer (Selection Grade) / Assistant Professor.

The requirement for completing the courses would be as follows:

For Lecturer to Lecturer (Senior Scale), summer / winter schools courses of total duration of 4 weeks would be compulsory.

Summer / Winter school courses of total duration of 4 weeks for Lecturer (Senior Scale) to Lecturer (Selection Grade) / Assistant Professor.

The senior teachers like Asst. Professors / Lecturers (Selection Grade) and Professors may opt to attend four seminars / conferences in their subject area and present papers as one aspect of their promotion/selection to higher level or attend the AICTE approved summer / winter schools to be offered by various approved institutions.

Scale of pay : Rs. 16,400 - 450 - 20,900 - 500 - 22,400

## Annexure-8 Qualification and Experience for Recruitment of Faculty (vide Section R 11.3)

#### Minimum Qualifications and Experience Prescribed by AICTE for Teaching Posts in Degree Level Technical Institutions

#### **RECOMMENDATION BY THE EXECUTIVE COMMITTEE OF** SL.NO CADRE AICTE 1. **LECTURER** QUALIFICATION & First Class Master's Degree in the appropriate branch of Engineering **EXPERIENCE** FOR (Engg.) / Technology (Tech.) (No minimum experience required). **CANDIDATES** FROM OR TEACHING First Class Bachelor's degree in the appropriate branch of Engineering / Technology or equivalent, valid GATE score, minimum 75 percentile; to complete M.Tech / ME within 5 years failing which the increments will be stopped until the postgraduate degree is earned. The institutions to provide adequate opportunity to its teaching staff to complete this requirement. Same as above. **QUALIFICATION** & **EXPERIENCE** FOR CANDIDATES FROM **INDUSTRY** & PROFESSION 2. ASSISTANT PROFESSOR QUALIFICATION & Ph.D. degree with the first class at Bachelor's or Master's level in the **EXPERIENCE** FOR appropriate branch of Engineering / Technology with 2 years experience CANDIDATES FROM in Teaching / Industry / Research at the level of Lecturer or equivalent. TEACHING OR First Class at Master's level in the appropriate branch of Engineering / Technology with 5 years experience in teaching / Industry / Research at the level of lecturer or equivalent. Such candidates will be required to obtain Ph.D degree within a period of 7 years from the date of appointment as Assistant Professor. In the case of Universities / Universities departments and those institutes offering PG programmes / Research, Ph.D is a must. For candidates from Industry / Professional

### A. Engineering & Technology Disciplines

	QUALIFICATION & EXPERIENCE FOR CANDIDATES FROM INDUSTRY & PROFESSION	experience in R&D and patents would be desirable requirements failing which the increments will be stopped until Ph.D is earned. Candidates from Industry/ Profession with First Class Bachelor's degree in the appropriate branch of Engineering / Technology or First Class Master's Degree in the appropriate branch of Engineering / Technology. <u>AND</u> Professional work, which is significant and can be recognized as equivalent to Ph.D.* degree and with 2 years experience at a position equivalent to lecturer level would also be eligible.
3.	PROFESSORQUALIFICATION&EXPERIENCEFORCANDIDATESTEACHING	Ph.D degree with first class degree at Bachelor's or Master's level in the appropriate branch of Engineering / Technology with 10 years experience in Teaching (or) 10 years of experience in Industry / Research out of which 5 years must be at the level of Assistant Professor and / or equivalent.
	QUALIFICATION & EXPERIENCE FOR CANDIDATES FROM INDUSTRY & PROFESSION	Candidates from Industry / Profession with Master's degree in Engineering / Technology and with professional work which is significant and can be recognized as equivalent to Ph.D.* degree and with 10 years experience of which at least 5 years should be at a Senior Level comparable to that of an Assistant Professor would also be eligible.
4.	Director / Principal / Headof InstituteQUALIFICATIONQUALIFICATIONEXPERIENCEFORCANDIDATESTEACHING	Professor in relevant discipline with total experience of 15 (fifteen) years in the field of Teaching / Industry / Research.
	QUALIFICATION&EXPERIENCEFORCANDIDATESFROMINDUSTRY&PROFESSION-	The maximum age for holding the post of Director / Principal shall be 65 years.

\* Unanimously declared equivalent to Ph.D by a 3-member expert committee duly appointed by affiliating university in case of affiliated institutes, university for others.

#### NOTE :

1. If a class/division is not awarded at B.E or M.E/Equivalent Degree a minimum of 60 % marks in aggregate or equivalent CGPA shall be considered equivalent to first class/division.

#### PERCENTAGE EQUIVALENCE OF GRADE POINTS FOR A TEN POINTS SCALE

GRADE POINT	PERCENTAGE OF MARKS
6.25	55
6.75	60
7.25	65
7.75	70
8.25	75

2. If the discipline of Computer Science Engineering/Technology, in lieu of the "First Class degree at Bachelor's and/ or Master level in the appropriate branch, "a first class Master's Degree in Computer Science Engineering/ Technology together with a First Class Bachelor's Degree in any area of Engineering Technology will be acceptable.

Scale of Pay :	Lecturer	:	Rs.8,000 - 275 - 13,500
	Assistant Professor	:	Rs.12,000 - 420 - 18,300
	Professor	:	Rs.16,400 - 450 - 20,900 - 500 - 22,400
	Principal	:	Rs.18,400 – 500 – 22,400 (Minimum to be fixed at Rs.19,400)

## MINIMUM QUALIFICATION AND EXPERIENCE PRESCRIBED FOR TEACHING POST IN DEGREE LEVEL TECHNICAL INSTITUTIONS

### **B.ENGINEERING AND TECHNOLOGY (BIOTECHNOLOGY)**

SI. No.	CADRE	RECOMMENDATION BY THE EXECUTIVE COMMITTEE OF AICTE
1.	LECTURER QUALIFICATION & EXPERIENCE FOR CANDIDATES FROM TEACHING	(Engg.) /Technology (Tech.) (No minimum experience required).
	QUALIFICATION&EXPERIENCEFORCANDIDATESFROMINDUSTRY&PROFESSION	
2.	ASSISTANT PROFESSOR QUALIFICATION & EXPERIENCE FOR CANDIDATES FROM TEACHING	the appropriate branch of Engineering / Technology / Applied Biological
	QUALIFICATION &	Candidates from Industry / Profession with First Class Bachelor's degree in the appropriate branch of Engineering / Technology or First Class

SI. No.	CADRE	RECOMMENDATION BY THE EXECUTIVE COMMITTEE OF AICTE
1100	<b>EXPERIENCE</b> FOR	Master's Degree in the appropriate branch of Engineering/ Technology /
	CANDIDATES FROM	Applied Biological Sciences.
	INDUSTRY &	AND
	PROFESSION	Professional work, which is significant and can be recognized as equivalent
		to Ph.D degree and with 2 years experience would also be eligible.
2	DDOFFSCOD	to i mb degree and whit 2 years experience would also be enginee
3.	PROFESSOR	
	QUALIFICATION &	Ph.D degree with first class degree at Bachelor's or Master's level in the
	EXPERIENCE FOR	appropriate branch of Engineering / Technology / Applied Biological
	CANDIDATES FROM	Sciences with 10 years experience in Teaching / Industry / Research out of
	TEACHING	which 5 years must be at the level of Assistant Professor and / or equivalent.
	QUALIFICATION &	Candidates from Industry / Profession with Master's degree in Engineering
	EXPERIENCE FOR	/ Technology / Applied Biological Sciences and with professional work
	CANDIDATES FROM	which is significant and can be recognized as equivalent to Ph.D degree and
	INDUSTRY &	with 10 years experience of which at least 5 years should be at a Senior
	PROFESSION	Level comparable to that of an Assistant Professor would also be eligible
4.	DIRECTOR /	
	PRINCIPAL /HEAD OF	
	INSTITUTION	
	QUALIFICATION &	
	EXPERIENCE FOR	
	CANDIDATES FROM	
	TEACHING	Professor in relevant discipline with total experience of 15 (fifteen) years in
		the field of Teaching / Industry / Research.
	QUALIFICATION &	
	EXPERIENCE FOR	
	CANDIDATES FROM	The maximum age for holding the post of Director / Principal shall be 65
	INDUSTRY &	years.
	PROFESSION	

- \* Unanimously declared equivalent to Ph.D by a 3-members expert committee duly approved by BOG/Senate/ Syndicate/Academic Council.
- NOTE : If a class/division is not awarded at B.E or M.E/Equivalent Degree a minimum of 60 % marks in aggregate or equivalent CGPA shall be considered equivalent to first class / division.

## PERCENTAGE EQUIVALENCE OF GRADE POINTS FOR A TEN POINTS SCALE

GRADE POINT	PERCENTAGE OF MARKS
6.25	55
6.75	60
7.25	65
7.75	70
8.25	75

Scale of Pay :	Lecturer	:	Rs.8,000 - 275 - 13,500
	Assistant Professor	:	Rs.12,000 - 420 - 18,300
	Professor	:	Rs.16,400 - 450 - 20,900 - 500 - 22,400
	Principal	:	Rs.18,400 – 500 – 22,400 (Minimum to be fixed at Rs.19,400)

#### MINIMUM QUALIFICATION AND EXPERIENCE PRESCRIBED FOR TEACHING POST IN DEGREE LEVEL TECHNICAL INSTITUTIONS

#### C.MASTER IN COMPUTER APPLICATION (MCA) PROGRAMMES

SI. No.	CADRE	RECOMMENDATION BY THE EXECUTIVE COMMITTEE OF AICTE
1.	LECTURER	
	QUALIFICATION &	First Class MCA Degree/ M.Sc
	<b>EXPERIENCE</b> FOR	(Computer Science)/ M. Sc (Information Technology) with NET
	CANDIDATES FROM	qualification
	TEACHING	OR
		First Class B.E/B.Tech. in Computer Science/Information Technology
		/Engineering/Technology with GATE qualification of minimum 80%
		percentile score.
	QUALIFICATION &	Same as above
	<b>EXPERIENCE</b> FOR	
	CANDIDATES FROM	
	INDUSTRY &	
	PROFESSION	
2.	ASSISTANT	
	PROFESSOR	
	QUALIFICATION &	Ph.D. degree with First Class Degree at Bachelor's or Master's level in
	<b>EXPERIENCE</b> FOR	Computer Engineering / Computer Technology OR Ph.D degree in any
	CANDIDATES FROM TEACHING	relevant area of Computer Science/ Information Technology with first class Masters degree
		AND
		2 years experience in Teaching/ Industry/ Research.
		OR
		First Class Master's degree in Computer Science /Information
		Technology/Computer Technology OR First Class MCA degree and with 5
		years experience in teaching / industry / research at the level of lecturer or equivalent.
		Such candidates will be required to obtain Ph.D. degree within a period of 7 years from the date of appointment as Assistant Professor.
		· Jones - Shi ene duce of appointment as resistant r rocessor.

	QUALIFICATION &	Candidates from Industry/ Profession with First Class B.E/B.Tech. in
	EXPERIENCE FOR	Computer Science/Information Technology /M Sc (Comp Sc)/ M.Sc (IT)/
	CANDIDATES FROM	MCA degree
	INDUSTRY &	AND
	PROFESSION	
		Professional work experience of 7 years in relevant industry.
		Such candidates will be required to obtain Ph.D. degree within a period of
		7 years from the date of appointment as Assistant Professor
3.	PROFESSOR	
	QUALIFICATION &	Ph.D. degree with First Class Degree at Bachelor's or Master's level in
	<b>EXPERIENCE</b> FOR	Computer Science/ Computer Technology / Computer Engineering /
	CANDIDATES FROM	Information Technology OR Ph.D degree in any relevant area of Computer
	TEACHING	Science/ Information Technology with first class Masters degree
		AND
		10 years experience in Teaching/ Industry/ Research out of which 5 years
		must be at the level of Assistant Professor and/ or equivalent.
		Candidates from Industry/ Profession with First Class M.E/M.Tech. in
		Computer Science/Information Technology
	QUALIFICATION &	AND
	EXPERIENCE FOR	Professional work experience of 13 years in relevant industry of which at
	CANDIDATES FROM	least 5 years should be at a Sr. Level comparable to that of an Assistant
	INDUSTRY &	Professor .
	PROFESSION	
4.	Director / Principal / Head	
	<u>of Institute</u>	
	QUALIFICATION &	Professor in relevant discipline with total experience of 15 (fifteen) years in
	<b>EXPERIENCE</b> FOR	the field of Teaching / Industry / Research.
	CANDIDATES FROM	
	TEACHING	
	QUALIFICATION &	
	EXPERIENCE FOR	The maximum age for holding the post of Director / Principal shall be 65
	CANDIDATES FROM	years.
	INDUSTRY &	
	PROFESSION	

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NOTE : If a class/division is not awarded at B.E or M.E. / Equivalent Degree a minimum of 60 % marks in aggregate or equivalent CGPA shall be considered equivalent to first class / division.

## PERCENTAGE EQUIVALENCE OF GRADE POINTS FOR A TEN POINTS SCALE

GRADE POINT	PERCENTAGE OF MARKS
6.25	55
6.75	60
7.25	65
7.75	70
8.25	75

### MINIMUM QUALIFICATION AND EXPERIENCE PRESCRIBED FOR TEACHING POST IN DEGREE LEVEL TECHNICAL INSTITUTIONS D. MANAGEMENT PROGRAMMES

SI. No.	CADRE	RECOMMENDATION BY THE EXECUTIVE COMMITTEE OF AICTE
1.	LECTURERQUALIFICATION&EXPERIENCEFORCANDIDATESFROMTEACHING	First Class Master's degree in Business Management / Administration/ other relevant management related discipline / PGDBM / PGDM programmes (minimum 2 years duration) recognized by AICTE / MHRD / UGC and declared equivalent to MBA by AICTE/AIU.
	QUALIFICATION & EXPERIENCE FOR CANDIDATES FROM INDUSTRY & PROFESSION	
2.	ASST. PROFESSOR QUALIFICATION & EXPERIENCE FOR CANDIDATES FROM TEACHING	Ph.D. degree or a fellowship of IIMs, ICA or ICWA or other institutions recognized by AICTE, with First Class Master's degree in Business Management / Administration/ other relevant management related discipline / PGDBM / PGDM programmes (minimum 2 years duration) recognized by AICTE / MHRD / UGC and declared equivalent to MBA by AICTE/AIU with 2 years experience in Teaching/ Industry/ Research/ Profession.
		OR First Class Master's degree in Business Management / Administration/ other relevant management related discipline / PGDBM / PGDM Programmes (minimum 2 years duration) recognized by AICTE / MHRD / UGC and declared equivalent to MBA by AICTE/AIU with 5 years experience in Teaching / Industry / Research / Profession. Such candidates will be required to obtain Ph.D. degree or a fellowship of IIMs, ICA Or ICWA or any AICTE approved institution within a period of 7 years from the date of appointment as Assistant Professor failing which the increments will be stopped until same degree is earned.
		First Class Master's degree in Business Management / Administration/

SI.	CADRE	RECOMMENDATION BY THE EXECUTIVE COMMITTEE OF AICTE
No.		other relevant management related discipline / PGDBM / PGDM
	QUALIFICATION &	Programmes (minimum 2 years duration) recognized by AICTE / MHRD /
	EXPERIENCE FOR CANDIDATES FROM	UGC and declared equivalent to MBA by AICTE/AIU.
	CANDIDATES FROM INDUSTRY &	AND
	PROFESSION	
	INOTESSION	Professional work which is significant and can be recognized at national/
		international level as equivalent to Ph.D* degree and with 2 years
		managerial experience in Industry/ Profession would also be eligible.
3.	PROFESSOR	
	QUALIFICATION & EXPERIENCE FOR CANDIDATES FROM TEACHING	Ph.D. degree or a fellowship of IIMs, ICA or ICWA or any AICTE approved institution with First Class Master's degree in Business Management / Administration/ other relevant management related discipline / PGDBM / PGDM programmes (minimum 2 years duration) recognized by AICTE / MHRD / UGC and declared equivalent to MBA by AICTE/AIU with 10 years experience in Teaching/ Industry/ Research out of which 5 years must be at the level of Assistant Professor.
	QUALIFICATION & EXPERIENCE FOR CANDIDATES FROM INDUSTRY & PROFESSION	Candidates from Industry/ Profession with First Class Master's degree in Business Management / Administration/ other relevant management related discipline / PGDBM / PGDM programmes (minimum 2 years duration) recognized by AICTE / MHRD / UGC and declared equivalent to MBA by AICTE/AIU.
		AND
		Professional work which is significant and can be recognized as equivalent to Ph.D* degree and with 10 years managerial experience of which at least 5 years should be at a senior level comparable to that of an Assistant Professor would also be eligible.
4.	Director / Principal / Head	
	<u>of Institute</u>	
	QUALIFICATION &	
	EXPERIENCE FOR	

SI. No.	CADRE		RECOMMENDATION BY THE EXECUTIVE COMMITTEE OF AICTE
	CANDIDATES I TEACHING	FROM	Professor in relevant discipline with total experience of 15 (fifteen) years in the field of Teaching / Industry / Research.
			the new of reaching / industry / Research.
	QUALIFICATION	&	
	EXPERIENCE	FOR	
	CANDIDATES I	FROM	
	INDUSTRY	&	The maximum age for holding the post of Director / Principal shall be 65
	PROFESSION		years.

- \* Unanimously declared equivalent to Ph.D by a 3-members expert committee duly approved by BOG/Senate/ Syndicate/Academic Council.
- NOTE : If a class/division is not awarded at B.E or M.E/Equivalent Degree a minimum of 60 % marks in aggregate or equivalent CGPA shall be considered equivalent to first class / division.

#### PERCENTAGE EQUIVALENCE OF GRADE POINTS FOR A TEN POINTS SCALE

GRADE POINT	PERCENTAGE OF MARKS
6.25	55
6.75	60
7.25	65
7.75	70
8.25	75

## E. Architecture / Planning Disciplines

LECTURERQUALIFICATION&EXPERIENCEFORCANDIDATESFROMTEACHING	Essential: i. First Class Bachelor's degree in Architecture or equivalent.**		
QUALIFICATION&EXPERIENCEFORCANDIDATESFROMINDUSTRY&PROFESSION-	Same as above		
ASSISTANT PROFESSOR QUALIFICATION & EXPERIENCE FOR CANDIDATES FROM TEACHING QUALIFICATION & EXPERIENCE FOR CANDIDATES FROM	Essential: i. Bachelor's Degree in Architecture or equivalent.** ii. Doctorate @ iii. Registration with Council of Architecture. Desirable: Associate Member of Indian Institute of Architects. Minimum Work Experience: 2 years as Lecturer in Architecture or in Research/ Practice in Architecture. Same as above		
	EXPERIENCE FOR CANDIDATES FROM INDUSTRY & PROFESSION ' ASSISTANT PROFESSOR ' QUALIFICATION & EXPERIENCE FOR CANDIDATES FROM TEACHING '		

SI. No.	CADRE	RECOMMENDATION BY THE EXECUTIVE COMMITTEE OF AICTE		
3.	PROFESSORQUALIFICATION&EXPERIENCEFORCANDIDATESFROMTEACHING	Essential: i. Bachelor's Degree in Architecture or equivalent.** ii. Doctorate @ iii. Registration with Council of Architecture. Desirable: Fellow member of Indian Institute of Architects. Minimum Work Experience: 10 years in Teaching/ Research/ Practice in Architecture after obtaining Bachelor's Degree in Architecture or equivalent out which 5 years at least at the level of Assistant Professor or equivalent		
	QUALIFICATION & EXPERIENCE FOR CANDIDATES FROM INDUSTRY & PROFESSION	Same as above		
4	Director / Principal /Head of InstituteQUALIFICATION &EXPERIENCE FORCANDIDATES FROMTEACHINGQUALIFICATION &EXPERIENCE FOR	Professor in relevant discipline with total experience of 15 (fifteen) years in the field of Teaching / Industry / Research.		
	CANDIDATESFROMINDUSTRY&PROFESSION	The maximum age for holding the post of Director / Principal shall be 65 years.		

\*\* Equivalent means Diploma recognized as equivalent to Bachelor Degree in Architecture or associate-ship examination of Institute of Architects.

@ In lieu of the recognized Doctorate in Architecture published Research work in Registered/ Referred journals/ significant professional work can also be considered as equivalent but in such a case a minimum of 3 years of work experience would have to be added. Also, the candidate would be required to get a recognized Doctorate in Architecture within 7 years of appointment to the post.

Note 1: If a class/ division is not awarded at Bachelor's level, a minimum of 60% in aggregate shall be considered equivalent to first class/ division. If a grade system is adopted, the Table as below will apply:

#### PERCENTAGE EQUIVALENCE OF GRADE POINTS FOR A TEN POINTS SCALE

GRADE POINT	PERCENTAGE OF MARKS
6.25	55
6.75	60
7.25	65
7.75	70
8.25	75

Scale of Pay:	Lecturer	:	Rs.8,000 - 275 - 13,500
	Assistant Professor	:	Rs.12,000 - 420 - 18,300
	Professor	:	Rs.16,400 - 450 - 20,900 - 500 - 22,400

#### S.No. Cadre Qualification Experience 1. Lecturer Good Academic record with at least 55% No Minimum requirement of marks OR an equivalent CGPA at the masters degree level in their relevant subject from an Indian University, OR an degree from equivalent а foreign University Besides. fulfilling above the qualifications, candidates should have cleared the National Eligibility Test (NET) or (SLET) or accredited test for PG and UG level teaching for Lecturers conducted by the UGC, CSIR, or similar tests accredited by the UGC. Note: i. Candidates having Ph.D. degree are exempted from above tests for UG and PG level teaching. ii. Candidates having M.Phil degree are exempted from above tests for UG level teaching only. 2. Good Academic record with at least 55% Assistant 5 years experience in Teaching and/or of marks OR an equivalent CGPA at the Research excluding the period spent for Professor obtaining the degrees and has made masters degree level and Ph.D degree in the relevant subject some mark in the areas of Scholarship as evidenced by quality of Publications, contribution to educational innovation, design of new course and curricula. 10 years experience of which at least 5 3. Professor Good Academic record with at least 55% of marks OR an equivalent CGPA at the years should be at the senior level masters degree level and Ph.D. degree in comparable to that of a Assistant appropriate branch of Humanities and Professor in Post graduate teaching, Sciences (Desirable: Post Doctoral Work and/or experience in research at the in appropriate branch of Humanities and University, National level Institutions, Science) including experience of guiding research at Doctoral level.

#### F. Humanities and Sciences Disciplines

Note: If a grade point system is adopted, the CGPA will be converted into equivalent marks and minimum CGPA shall be 6.75 in the ten point scale.

#### PERCENTAGE EQUIVALENCE OF GRADE POINTS FOR A TEN POINTS SCALE

GRADE POINT	PERCENTAGE OF MARKS
6.25	55
6.75	60
7.25	65
7.75	70
8.25	75

Scale of Pay:

Lecturer	:	Rs.8,000 - 275 - 13,500
Assistant Professor	:	Rs.12,000 - 420 - 18,300
Professor	:	Rs.16,400 - 450 - 20,900 - 500 - 22,400

#### Minimum Qualification and Experience Prescribed for Teaching Post in Degree Level Technical Institutions

#### F. Librarian

#### I. College Librarian (Lecturer Scale)

Minimum Qualifications:

- a. i. Qualifying in the national-level test conducted for the purpose by the UGC or any other agency approved by the UGC
  - ii. Master's degree in library science / Information science / documentation or an equivalent professional degree with at least 55% of the marks or its equivalent CGPA and consistently good academic record, computerization of library.

#### OR

b. I Class Master's degree in Library Science

Scale of Pay : Rs.8,000 – 275 – 13,500

#### II. College Librarian (Senior Scale)

- i. Master's degree in library science / Information science documentation with at least 55% of the marks or its equivalent CGPA and consistently good academic record:
- ii. Five year's experience as a College Librarian.
- iii. Evidence of innovative library services, published work and professional commitment, computerization of library

#### Desirable

M.Phil. / Ph.D degree in library science / Information science / documentation / archives and manuscript-keeping, computerization of library.

Scale of Pay: Rs.10,000-325-15,200

#### III. College Librarian (Selection Grade)

Master's degree in library science / information science documentation with at least 55% of the marks or its equivalent CGPA and consistently good academic record:

- i. At least 18 years experience as a College Librarian.
- ii. Evidence of innovative library service and organization of published work.

#### Desirable

M.Phil / Ph.D. degree in library science / Information Science / documentation / archives and manuscript-keeping.

Scale of Pay : Rs.12,000-420-18,300

#### Minimum Qualification and Experience Prescribed for Teaching Post in Degree Level Technical Institutions

#### **G.** Director – Physical Education

#### **1.** Director of Physical Education (Lecturer-Scale)

- i. A Master's degree in Physical Education (two year course) or Master's degree in Sports or an equivalent degree with atleast 55% of the marks or its equivalent CGPA and consistently good academic record.
- ii. Record of having represented the university / college at the inter-university / inter collegiate competitions or the State in national championships.
- iii. Passed the Physical fitness test.
- iv. Qualifying in the national test conducted for the purpose by the UGC or any other agency approved by the UGC.

Scale of Pay: Rs.8000 – 275 – 13,500

#### 2. Director of Physical Education (Senior Scale)

- (i) Should have completed 6 years of service as University Assistant DPEs / College DPEs with a benefit of 2 years for Ph.D and one year for M.Phil Degree holders.
- (ii) Passed the physical fitness test
- (iii) Should have attended at least one orientation course and one refresher course of about 3 to 4 weeks' duration each with proper and well-defined evaluation procedure (exemption from one refresher course is granted to Ph.D degree holders).

Scale of Pay: Rs.10,000 – 325 – 15,200

#### **3.** Director of Physical Education (Selection Grade)

- a. Completed 5 years of service as University Assistant DPE / college DPE in the senior-scale.
- b. Has attended at least 2 refresher courses of about 3-4 weeks duration with proper and well-defined evaluation procedure after placement in the scale of Rs.3000 5000.
- c. Shown evidence of having produced good teams / athletes and of having organized and conducted coaching camps of at least 2 weeks' duration.
- d. Passed the physical fitness test.
- e. Consistently good appraisal report.

Scale of Pay Rs. 12,000 – 420 – 18,300

#### Age of Superannuation

The age of superannuation of teachers in degree level technical institutions will be 62 years and thereafter no extension in service will be given. However the institute may re-employ a superannuated teacher upto 65 years in accordance with the existing provision(s) in the Statutes / Memorandum of Association and Rules / Schemes, Regulations and By-laws of the institute, as the case may be.

## Annexure 9 Norms for Non-Teaching Staff (vide Section R 11.4)

#### 1. Workshop Staff

The Workshop Superintendent shall be of cadre of an Assistant Professor with a nominal teaching workload. The Asst. Superintendent Workshop (ASW) / Foreman in the Workshop shall be given a cadre equivalent to that of Lecturer. The six workshop facilities consist of Carpentry, Welding, Smithy, Machine Shop, Fitting and Sheet Metal Shop. Each of these facilities would have a mechanic and an attendant. All these facilities should be headed by a ASW / Foreman

#### 2. Library Staff

Library shall be provided with the necessary qualified staff to enable it to be available to the staff and students for at least 12 hours in a day. The library shall have at the faculty level one Librarian. In addition, the library will have one assistant librarian and four library assistants as non-teaching staff.

#### 3. Physical Education Staff

There shall be at the faculty level one Director of Physical Education. In addition, there will be one Assistant Director of Physical Education and two Attendants as non-teaching staff.

#### 4. Administrative Staff and Non-Teaching Staff in the College

The structure of administrative staff may be as follows:

Registrar / Adm. Officer	1
Medical Officer (Part-time)	1
Office Superintendents*	1-3
Senior Stenographer and PA to Principal	1
Senior Assistant*	3-5
Junior Assistants*	3-8
Mechanics (Electrician, Plumber,	
Carpenter, etc.)	4
Draftsman / Tracer	1
Drivers*	3
Attendants*	5-10
Watchmen*	5-10

\* As per requirement of the college

#### 5. Laboratory Staff

There shall be a teaching staff in charge of each laboratory, assisted by a senior laboratory technician / laboratory technician and an attendant.

#### 6. Computer Centre Staff:

There shall be one System Manager, One System Analyst and at least one Computer Programmer and two Computer Operators in the Computer Centre.

#### 7. Department Staff

Each Department shall have an office with one Assistant and one Attendant.

## Annexure 10 Discipline and Welfare Committee (vide Section R 17)

The constitution of Discipline and Welfare Committee shall be as follows:

One of the senior Heads of the Department	Chairman
Three Heads of Department	Members
Service And America Strategies Warden of Boys Hostel	Member
Warden / Deputy Warden of Girls Hostel	Member
🐓 One Lady Faculty	Member
Students Counselor (Staff)	Convener

The Governing Council shall nominate the members of the above committee from the panel to be submitted by the Principal of the college

The following are the functions of the committee:

Units of the cases of: • To examine / inquire and recommend punishments / remedial measure in the cases of:

- i. malpractices in examinations
- ii. indiscipline in the college campus and hostel premises
- iii. complaints of ragging
- iv. complaints of eve teasing and harassment of weaker sections
- v. any other activity that may damage the discipline and harmony of the college

• To visit periodically the campus of the college, including the hostels to recommend improvements in amenities and maintenance of students' facilities.

The committee shall meet at least once in two months to deliberate on issues referred to. However, emergency meeting of the committee can be convened as and when situation warrants. All the meetings shall be convened by the convener with the approval of the chairman.

The committee shall submit its recommendations to the Principal of the college. Based on the recommendations made by the committee, the Principal will implement the decisions forthwith. However, under extraordinary circumstances, the Principal may entertain appeals from the aggrieved persons and take appropriate actions.

## Annexure 11 Registers and Records (vide Section R 18)

The college shall maintain and make available the following Registers, Records and Documents as and when demanded by the University:

- 1. Department wise faculty profile
- 2. Record of students (programme wise)
- 3. Department wise Non-Teaching Staff Profile
- 4. Academic performance record of students (programme wise)
- 5. Copy of Regulations, curriculum and syllabi (programme wise)
- 6. Record of Research / Consultancy / Extension activities (department wise)
- 7. Record of student projects (UG, PG & PhD)
- 8. Record of Achievements, Award and Recognition (department wise)
- 9. Master time table and Academic calendar
- 10. Stock register for equipment
- 11. Stock register for consumable
- 12. Stock register for furniture
- 13. Stock register for tools and plants
- 14. Accession register for library
- 15. Register of admissions and dropouts / withdrawals
- 16. Register of attendance and assessment record (programme wise)
- 17. Attendance for teaching and non-teaching staff
- 18. Year-wise audited statement of accounts of the college and also in the format specified by the University
- 19. Record of scholarships / fellowships / financial assistance for students
- 20. Cash book of the college
- 21. Acquittance register
- 22. Fee receipt books (including counterfoils)
- 23. Advertisement for recruitment of faculty members
- 24. Minutes of the meeting of Staff Selection Committee
- 25. Appointment / offer letters issued to faculty members
- 26. Joining report of staff members
- 27. Funds position / bank certificates / FDR copies to indicate financial stability
- 28. Minutes of the meetings of the Managing Body of the college
- 29. Minutes of the meeting of the Planning and Development Board
- 30. Book of Transfer certificate (including counterfoils)
- 31. Minutes of the meetings of the Registered Society / Trust of the college

## Annexure 12 Returns from the College (vide Section R 19)

- 1. Return of teaching and non-teaching staff as on 30<sup>th</sup> September of the academic year. The curriculum vitae of each staff duly attested by the Principal along 'with recent photograph of the staff with specimen signature affixed on it'.
- 2. Return of students enrolment as on  $30^{th}$  September of the academic year
- 3. Students intake (admitted) in various programmes in the college as on 30<sup>th</sup> September of the academic year
- 4. Return on "matriculate"
- 5. List of gender-wise students registered for various programmes, semester-wise offered by the college as on 30<sup>th</sup> September / 28<sup>th</sup> February
- 6. Return on eligibility of students admitted from other universities / other states
- 7. List of students of foreign nationals / NRI admitted in the college
- 8. Number of minority students admitted under the minority quota in the college
- 9. List of students issued with Transfer certificates.

## Annexure 13 Format of Application for Affiliation (vide section R 20)



## **ANNA UNIVERSITY CHENNAI**

Format of Application seeking Affiliation for the academic year \_\_\_\_\_

(The last date for the receipt of the completed application is \_\_\_\_\_)

:

:

:

- 1. College
  - i. Name :
  - ii. Address of the site as approved by the AICTE
  - iii. Is the college functioning at the said-approved site?
  - iv. Telephone Numbers
  - v. Fax Numbers
  - vi. Email
  - vii. Website
  - viii Year of establishment of the college :
  - ix. Category of the College (please tick the appropriate box)

Non Minority	Minority							
	Linguistic Malayalam	Linguistic Telugu	Linguistic Sourashtra	0	Religious Muslim	Religious Jain	Others (specify)	

## 2. Trust / Society

i.	Name of the Trust/Society			
ii.	Address of the registered office			
iii.	Registration number			
iv.	Date of registration			
V.	Name of the Chairman/Secretary / Correspondent	:		
vi.	Telephone numbers - Office	:		
	Residence	:		
vii.	Fax numbers	:		
viii.	Mobile numbers	:		
ix.	Email	:		

## 3. Principal

i.	Name		:
ii.	Qualification		:
iii.	Telephone numbers – (	Office	:
		Residence	:
iv.	Fax numbers		:
V.	Mobile numbers		:
vi.	E mail		:
vii.	Residential address		:

**4. Governing Council** (refer sec. 5.2 of Statutes for Affiliation, Anna University) Composition:

SI. No.	Name	Position	Qualification	Present professional position/Occupation	Telephone numbers	Email	Address
1		Chairman					
2							
		Members					
		Member Secretary					

## 5. Planning and Monitoring Board (refer sec.5.3 of Statutes for Affiliation, Anna University)

Composition:

SI. No.	Name	Position (Chairman/ Member)	Category	Qualification	Present professional position/Occupation	Email	Address
1		l nairman	Principal of the college				
2		Member	Senior faculty member of the college				
3		Member	Senior faculty member of the college				

SI. No.	Name	Position (Chairman/ Member)	Category	Qualification	Present professional position/Occupation	Email	Address
4		Member	Senior faculty member from University/other college				
5		Member	Industrial expert in the field of engineering and technology				
6		Member	Industrial expert in the field of engineering and technology				
7		Member	Architect/Civil Engineer				

## 6. i. Discipline and Welfare Committee section (refer sec.5.14 of Statutes for Affiliation, Anna University)

Composition:

SI. No.	Name	Position	Position Category		Email	Address
1		Chairman	Senior Head of the Department			
2		Member	Head of the Department			
3		Member	Head of the Department			
4		Member	Head of the Department			
5		Member	Warden/Deputy Warden of Boys' Hostel			
6		Member	Warden/Deputy Warden of Girls' Hostel			
7		Member	Lady faculty member			
8		Convener	Student Counselor (Staff)			

## ii. Complaints cum Redressal Committee (refer sec.5.3 of Statutes for Affiliation, Anna University)

Composition:

SI. No.	Name	Category	Profession	Telephone numbers	Email	Address

## Norms for composition:

- Should be headed by a senior lady member
- 50% of the membership of the committee should be represented by ladies
- A third party either an NGO or an outside activist who is familiar with the issue of sexual harassment in work place

- 7. Financial Stability of the Trust / Society (refer sec.5.3 of Statutes for Affiliation, Anna University)
  - i. Savings Bank / Current Accounts:

SI. No.	Savings Bank/Current account	Bank Name	Branch	Account number	Balance amount at the end of last financial year (Rs.)	Balance amount as on date (Rs.)

## ii. Long term deposits:

SI. No.	Bank/Govt./Govt. approved institution	Branch	Amount (Rs.)	Date of maturity

## iii. Value of Land and building:

SI. No.	Survey number	Location	Extent (sq.m)	Built up area (sq.m.)	Market value (Rs.)

## iv. Endowment

SI. No.	Created with	Amount (Rs.)	Deposited in the bank (name)	Branch	Instrument No. and date	Date of expiry
	AICTE					
	University					
	State Govt.					

Financial Stability:

Total financial reserves : Annual maintenance and development expenditure :

## 8. Details of the land earmarked for the college

## Norms:

Mega cities (Delhi, Kolkatta, Chennai and Mumbai)	:	3 acres (1 acre)*
Metro cities including state capitals	:	5 acres (2 acres)
Others	:	10 acres (2.5 acres)

\* Figures within the brackets indicate the norms for colleges offering only Architecture & Planning programme(s).

SI. No.	Location of the college (Mega city/Metro city/ others)	Extent of land earmarked for the college (acre)	Document number	Date of registration	Survey number	Extent of land required (refer norms)	Deficiency %

# 9. Details on Accreditation status awarded by National Board of Accreditation and Inclusion under Section 2(f) and 12(B) of the UGC Act, 1956 (Proof to be enclosed)

SI. No.	Programme	Accr	editation Status	Inclusion under sections 2(f) and 12(B) of the UGC Act, 1956				
		Accredited / Not Accredited	Period of accreditation, if accredited	Letter No. and date	Section 2(f)		Section 12(B)	
					Included / Not Included	Letter No. and date, if included	Included / Not Included	Letter No. and date, if included

## 10. Existing affiliated programmes:

## A. Details:

SI. No.	Department	Degree	Programme	tion	Nature of affiliation (Permanent/ Provisional)	5				Students admitted including lateral entry and transfer as on roll			
						academic year	academic year	academic year	academic year	Fourth year	Third year	Second year	First year

# B. Affiliation sought for the year of application for existing provisionally affiliated programmes:

SI. No.	Degree	Programme	Whether affiliation is sought for the year of application?							
				If Ye	If No, answer one of the following and provide the letter of consent from AICTE for the same <sup>#</sup>					
			Sanctioned intake in the preceding year of application	Additional intake sought for the year of application	Total intake sought for the year of application	AICTE approved intake for the year of application (if available)	Do you want to suspend the programme? If yes, for how many years?	Do you want to phase out the programme?		
							T			

\* Refer sec. 7.8 of 'Statutes For Affiliation'

Note:

- For architecture programmes, approval from the Council of Architecture (COA) should be obtained for the academic year concerned in addition to AICTE approval.
- For B.E. Marine Engineering, approval from the Directorate General of Shipping (DGS) should be obtained for the academic year concerned in addition to AICTE approval.

# 11. Additional programme(s) for which provisional affiliation is sought for the year of application

SI. No.	Degree	Programme	Intake sought	AICTE approved intake if available

#### Note:

- The request for affiliation will not be considered for the year of application for programmes, which are not mentioned here
- In case the approved curriculum and syllabi of the proposed programme(s) are not available at the time of application, those programme(s) will not be considered for affiliation.

### 12. Details of students presently studying in all the years:

		_	Tota	I											[	Nun	nber	of s	stud	ents	- C(	omn	nunit	y wis	e	
SI.	Programme		uder		N	umb	er of	stude	nts - r	eligio	n wi	se					Hir	ndus					Mus	lims	Chris	tians
No.	riogramme				Hir	ndus	Mu	slims	Chris	stians	Oth	ners	S	С	S	Т	Μ	BC	B	SC	С	С	O	3C	OE	3C
		В	G	Т	В	G	В	G	В	G	В	G	В	G	В	G	В	G	В	G	В	G	В	G	В	G
Total																										

B - Boys, G - Girls, T - Total

### 13. Faculty- qualification and experience

For faculty qualification and experience refer <u>Statutes Section 5.10</u> and <u>Regulations R 11</u> and <u>Annexure 8</u> of Statutes and Regulation for Affiliation

## i. Principal:

#### A. Qualification

Principal name with stamp size photo	Date of birth and age	Qualification with class obtained starting from the highest degree	Corresponding specialization	Date of joining	Scale of pay	Present basic pay	Total emoluments	Signature

#### B. Experience

	Position and years of experience											
	Teaching		Industry									
Institution	Position	Years	Institution	Position	Years							

Note:

• Principal may be shown as a Professor in the engineering/technology department concerned.

# ii. Engineering/Technology Faculty belonging to the Department offering programme – Provide information separately for each department.

Department:

A. Name of the HOD

(Provide the details in the format given below at the appropriate place along with other faculty members)

# B. Name of the B.E. / B.Tech. programme:

C. Details of faculty available for the B.E./B.Tech. programme in the department:

a. Qualifications

SI. No.	Name of the Faculty member with stamp- size photo	Regular/ Visiting	Designation	Qualification with class obtained starting from the highest degree	Corresponding specialization	of birth	Date of joining the present post	Scale of	hasic	Total emoluments	Signature of the faculty member

# b. Experience

				Previou	us experience		
SI.	Name of the		Teaching			Industry	
No.	Faculty member	Institution	Position	Years	Organisation	Position	Years

D. Name of the M.E. / M.Tech. programme:

E. Details of the faculty exclusively available for each M.E. / M. Tech. programme:

# a. Qualification

SI. No.	Name of the Faculty member with stamp- size photo	Regular/ Visiting	Designation	Qualification with class obtained starting from the highest degree	Corresponding specialization	of birth	Date of joining the present post	Scale of	basic	Total emoluments	Signature of the faculty member

				Position and	years of experience					
SI.	Name of the		Teaching			Industry				
No.	Faculty member	Institution	Position	Years	Organisation	Position	Years			

# iii. Science & Humanities and General Engineering Faculty (For supporting engineering and technology programmes)

(For B.Sc. / M.Sc. programmes, the faculty shown here are not to be included)

 A. Name of the HOD of each discipline: Mathematics
 Physics
 Chemistry
 English

# (Provide the details in the format given below at the appropriate place along with other faculty members)

B. Details of the faculty including General Engineering faculty

### a. Qualification

SI. No.	Name of the Faculty member with stamp- size photo	Regular/ Visiting	Designation	Qualification with class obtained starting from the highest degree	Corresponding specialization	of birth	Date of joining the present post	Scale of	basic	Total emoluments	Signature of the faculty member

				Position and	years of experience	2	
SI.	Name of the		Teaching			Industry	
No.	Faculty member	Institution	Position	Years	Organisation	Position	Years

# iv. Science Faculty for B. Sc. & M. Sc. programmes: (Provide details programme-wise) Name of the Department:

A. Name of the HOD:

(Provide the details in the format given below at the appropriate place along with other faculty members)

- B. Name of the programme:
- C. Details of the faculty:
  - a. Qualification

SI. No.	Name of the Faculty member with stamp- size photo	Regular/ Visiting	Designation	Qualification with class obtained starting from the highest degree	Corresponding specialization	of birth	Date of joining the present post	Scale of	basic	Total emoluments	Signature of the faculty member

	Name of the			Position and	years of experience		
	Faculty		Teaching			Industry	
No.	member	Institution	Position	Years	Organization	Position	Years

# v. M.C.A.

### A. Name of the HOD

(Provide the details in the format given below at the appropriate place along with other faculty members)

# B. Details of the faculty:

a. Qualification

SI. No.	Name of the Faculty member with stamp- size photo	Regular/ Visiting	Dosignation	Qualification with class obtained starting from the highest degree	Corresponding specialization	of birth	Date of joining the present post	Scale of	hasic	Total emoluments	Signature of the faculty member

			Position and years of experience											
SI.	Name of the		Teaching			Industry								
No.	Faculty member	Institution	Position	Years	Organisation	Position	Years							

### vi. M.B.A.

A. Name of the HOD

(Provide the details in the format given below at the appropriate place along with other faculty members)

- B. Details of the faculty:
- a. Qualification

SI. No.	Name of the Faculty member with stamp- size photo	Regular/ Visiting	Designation	Qualification with class obtained starting from the highest degree	Corresponding specialization	of birth	Date of joining the present post	Scale of	basic	Total emoluments	Signature of the faculty member

## b. Experience

	Nome of the			Position and	years of experience		
SI.	Name of the Faculty		Teaching			Industry	
No.	member	Institution	Position	Years	Organisation	Position	Years

#### vii Architecture – Provide information separately for each programme

- A. Name of the Department:
- B. Name of the HOD

(Provide the details in the format given below at the appropriate place along with other faculty members)

C. Name of the programme:

# D. Details of the faculty:

#### a. Qualification

SI. No.	Name of the Faculty member with stamp- size photo	Regular/ Visiting	Designation	Qualification with class obtained starting from the highest degree	Corresponding specialization	of birth	Date of joining the present post	Scale of	basic	Signature of the faculty member

# b. Experience

				Position and	years of experience		
SI.	Name of the		Teaching			Industry	
No.	Faculty member	Institution	Position	Years	Organisation	Position	Years

# E. Name of the programme: M. Arch. /M. Plan

# F. Details of the faculty exclusively available for the M. Arch. / M. Plan. – programme-wise

### a. Qualification

SI. No.	Name of the Faculty member with stamp- size photo	Regular/ Visiting	Designation	Qualification with class obtained starting from the highest degree	Corresponding specialization	of birth	Date of joining the present post	Scale of	basic	Total emoluments	Signature of the faculty member

# b. Experience

				Position and	years of experience		
SI.	Name of the		Teaching			Industry	
No.	Faculty member	Institution	Position	Years	Organisation	Position	Years

# viii. Librarian and Director of Physical Education:

# A. Details of the staff

SI. No.	Name of the staff member with stamp size photo	Department	Designation	Qualification	Date of joining the present post	Previous	Date of birth and age	Scale of pay	Total emoluments	Signature
1.			Librarian							
2.			Physical Education Director							

#### 14. Faculty – requirements and availability

Note: To calculate the faculty requirement,

- a) for Science & Humanities and General Engineering to support Engg. & Tech. programmes, the total sanctioned intake for the I year of all the B.E. / B.Tech. programmes alone are to be considered.
- b) for core Engg. / Tech., of B.E./B.Tech. programmes, the total sanctioned intake for the academic years \_\_\_\_\_, \_\_\_\_, (3 preceding years) are to be considered.
- c) for B.Arch./B.I.D./M.B.A./M.C.A./M.Sc./B.Sc. programmes, the total sanctioned strength all the years are to be considered.

# i. Consolidated faculty details for science & Humanities (for supporting Engg. & Tech. programmes)

Designation	Maths	Physics	Chemistry	English	Gen. Engg.	Total
Professor						
Assistant						
Professor						
Lecturer						
	·	·		Grand T	otal <b>(A)</b>	

			Total	Р	rofes	sor	A	sst. P	rof.	L	.ectur	rer	Total no of faculty	SSR
S.No.	Degree	Programme(s)	Sanctioned Strength*		A1	D		A2	D		A3	D	members available	1:
			(S)	R#	,,,,	(%)	R#	/ 12	(%)	R#	/ (5	(%)	(T = A1+	S/T
													A2+ A3)	

Total Sanctioned strength of all the B.E./B.Tech. Programmes,

including variation in intake for existing programme and intake

sought for additional programmes, for the academic year of application  $(S_1)$ 

Total no. of faculty members required **(R) (=S<sub>1</sub>/15)** 

:

:

# ii. Consolidated faculty details for all the programmes except M. E./M. Tech.

* Academic years to be considered for the calculation of total sanctioned intake (S)											
Programmes	B.E./B.Tech.	B.Arch./B.I.D.	M.B.A. / M.Sc.(2 years)	M.C.A.	M.Sc.(5 years)						
Academic years	(II, III & IV year) (3 years)	(I to V year) (5 years)	(I & II year) (2 years)	(I, II & III year) (3 years)	(I to V year) (5 years)						

**R** = Required, **A**<sub>i</sub> = Available, **D** = Deficiency, **SSR** = Staff : Student Ratio

# To calculate **R**, for different cadres, for a given total sanctioned strength **S**, **refer** <u>ANNEXURE I</u> for all programmes except B.Arch.

For B.Arch. programmes refer ANNEXURE II

#### iii. Consolidated faculty details for M.E./M.Tech.

SI. No.	Name of the Programme(s)	Qualification	Required	Available	Deficiency %
		Ph.D.	1		
1.		M.E./M.Tech.	2		
		Total	3		
		Ph.D.	1		
2.		M.E./M.Tech.	2		
		Total	3		

- iv. Are training and development opportunities given to faculty members? If so provide details.
- v. Is performance appraisal system followed for faculty members? If so provide details.

#### 15. Non-teaching staff:

For norms refer Statute Section 5.10 and Regulation R 11.4 and Annexure 9 of the Statutes and Regulation for Affiliation

# Technical staff: Provide the information separately for each department. Name of the Department:

Details of the staff:

SI. No.	Name of the staff	Designation	Qualification	Date of joining the present post	Previous experience	hirth	Scale of pay	Basic pay	Total emoluments	Signature

ii. Library and Physical Education Department:

Details of the staff:

SI. No.	Department	Name of the staff	Designation	Qualification	Date of joining the present post	Previous experience	hirth	Scale of pay	Basic pay	Total emoluments	Signature

## iii. Ministerial staff:

## Details of the staff:

SI. No.	Name of the staff	Place of work	Designation	Qualification	Date of joining the present post	PLEVIOLIS	Scale of pay	Total emoluments	Signature

### 16. Laboratory: Provide Department-wise details separately as Enclosure

i. Space:

Name of the Department:

Norm :

- In respect of Engg. & Tech. programmes the required area per laboratory shall be 250 sq.m and for workshop 900 sq.m. for a batch of 30 students.
- In respect of B.Arch programmes the required area per laboratory shall be 360 sq.m and for workshop 100 sq.m. for a batch of 40 students.
- In respect of M.C.A. programmes the required area per laboratory shall be 150 sq.m for a batch of 30 students.

SI. No.	Area of the laboratory available (sq.m.)	Deficiency %

#### ii. Laboratory Equipment

(Provide the information in the format given below for each laboratory course separately in respect of all the semesters concerned for the UG&PG programmes applied for in the department)

(Refer <u>www.annauniv.edu</u> and select 'Affiliation icon' or <u>www.annauniv.edu/cai</u> for requirements of laboratory equipment)

Degree:

Programme:

Semester:

Regulation: R2001/R2004/R2004 revised/R2005

Name of the Laboratory Course:

List of equipment required for a batch of 30 students for U.G./ 25 students for P.G.:

SI. No.	Name of the equipment/software	Quantity required	Quantity available	Deficiency %

#### 17. Central Computing Facility

i. Area:

Area required (sq.m.)	Area available (sq.m.)	Deficiency %
150		

ii. Terminals and LAN/WAN connections:

Norms for number of terminals:	Terminal: Student
B.E./B. Tech.	1:4
M.E./M.Tech.	1;2
B.Arch.	1:6
M.C.A.	1:2
M.B.A	1:2

	Number of terminals with P4 processor	Number of terminals on LAN/WAN	Number of Printers
Required			
	(Refer norms given	(Norm: 50% of the	(Norm: 10% of the
	above)	terminals required)	terminals required)
Available			
Deficiency			

#### iii. Softwares

Software required	Name of the software available	Deficiency %
System software – two	1.	
	2.	
	1.	
	2.	
Application software – eight and	3.	
four for B.E./B.Tech. and B.Arch./	4.	
M.C.A./M.B.A. programmes	5.	
respectively.	6.	
	7.	
	8.	

:

### iv. Network connectivity:

Bandwidth

Number of nodes with Internet connection :

#### Norms:

Bandwidth: 510 Kbps Number of nodes with Internet connection: 30

For colleges offering only Architecture programmes:

Bandwidth: 510 KbpsNumber of nodes with Internet connection: 15

#### 18. Library

i. Area:

Area required for an intake of 240 students (sq.m.)	Projected Area (sq.m.)	Area available (sq.m.)	Deficiency %
400 (100 for colleges having only Architecture programmes)			

ii. Books and Journals:

a) Books:

No. of existing UG programmes No. of existing PG programmes N1 = N2 =

0							
	Science &	Engg.	/ Tech., Arch.	& Plan., Man	agement and	Computer	
	Humanities						
	No. of	No. of	No.	of volumes (	(M <sub>2</sub> )	No. of	Total no.
	volumes	titles	If the year	of establishm	nent of the	volumes	of
	(M1)	(T)		college is		added for	volumes
						the year of	(M1 + M2
					1	application	+ M3)
			One year	Two years	Three	(M3)	
			before the	before the	years and		
			year of	year of	earlier the		
			application	application	year of		
					application		
Required	1000	250N1	4T	4T + 1000	4T + 2000	1000	
		+ 150	=	=	=		
		N <sub>2</sub>					
		=					
Available							
Deficiency							
%							

# b) Journals:

			National journal			International journal		rnal
SI.	Degree	Programme	R			R		
No.	Degree		(Refer	А	% D	(Refer	A	% D
			norms)			norms)		

# Norms:

SI.	Programmes	Technology journals		
No.		National	International	
1.	B.E./B.Tech.	6	6	
2.	M.E./M.Tech.	-	1	
3.	Arch.	5	5	
4.	M.B.A.	15	15	
5.	M.C.A.	6	6	

# 19. Class Rooms

# Norms for Class Room Capacity:

Area (sq.m)	Capacity
66	60

# i. Class Rooms available in the whole college

SI. No.	Area (length x width) in square metre	Number of rooms	Type of roof (RCC/asbestos)	Capacity (for calculation, refer norms given above)
Tota				

# ii. Summary:

SI. No.	Required	Available	Deficiency %
1	[Total class room capacity required for the college (C) = 0.75 x total sanctioned intake in all the years for all the programmes] =		
2	Number of Class rooms required for the college = C/60 =		

#### 20. Drawing Halls

i. Number of drawing halls required

#### Norm:

• Number of drawing halls required for B.E/B.Tech programmes = [Total sanctioned intake for the college / 240]

- Number of studios required for B.Arch programme is 5.
- Number of conference rooms required for M.B.A. programme is 3.

SI. No.	Programmes	Number of drawing halls required (Total sanctioned intake for the college / 240)	Number available	Deficiency %	

ii. Area of the drawing hall

#### Norm:

## Programme Area required for each drawing hall

- 1. B.E./B.Tech 175 sq.m.
- 2. B.Arch. 200 sq.m.
- 3. M.B.A. 50 sq.m.

SI. No.	Ŭ	Area of the each drawing hall required (sq.m.)	Area of the drawing hall available (sq.m.)	Deficiency %
Total				

# 21. Other building space

i. Central facility

SI. No.	Building space for	Building space required (sq.m) *	Projected space required (sq.m.)*	Available (sq.m.)	Deficiency %
1.	Principal's office	30 (20)	30 (20)		
2.	Administrative office	20 (20)	20 (20)		
3.	Reception office	25 (25)	25 (25)		
4.	Main office	300 for an intake of 240 students/year (50)			
5.	Strong room	20 (20)	20 (20)		
6.	Conference room	100 (25)	100 (25)		
7.	Drawing/reprographic facility	20 (20)	20 (20)		
8.	Maintenance and estate office	40 (40)	40 (40)		
9.	Students activity centre	0.25/student (0.25/student)			
10.	Open air theatre	4000	4000 50		
11.	Toilets in education building	10 for each 100 students (10 for each 100 students)			
12.	Canteen	100 (100)	100 (100)		
13.	Co-operative store	100 (30)	100 (30)		
14.	NSS/NSO/NCC/YRC office	100 (30)	100 (30)		

\* (Figures within the brackets indicate the requirements for Architecture programme)

ii. Department facility: Provide details department wise Name of the department:

SI. No.	Building space for	Building space required (sq.m.)	Projected space required (sq.m.)	Available (sq.m.)	Deficiency %
1	HOD	20	20		
2	Department office	25	25		
3	Faculty	10/teacher			
4	Department library	30	30		
5	Seminar	30	30		
6	Store	10	10		

# iii. Staff residence:

SI. No.	Building space for	Building space required in sq.m.	Projected space required (sq.m.)	Available (sq.m.)	Deficiency %
1	Principal	140	140		
2	Professor	100			
3	Asst. Prof./Lecturer	80			
4	Class III staff	30			
5	Class IV staff	20			

#### 22. Hostels:

Distance between the location of the college and the city:

#### Norms:

	<u>Carpet Area (sq.m.)</u>
Single room	9
Triple seated room	20

i. Boys' Hostel:

#### Norms:

- For the first year students a maximum of three in a room and for others single seated rooms to be provided.
- Total hostel capacity required for boys is 25% of boys' strength in the college if the college is located within 20 kms of a large city
- Total hostel capacity required for boys is 50 % of boys' strength in the college if the college is situated in other locations.
- Accommodation for 120 students is to be considered as one hostel unit.
- A. Details

SI. No.	Block number	Carpet area of room (sq.m.)	Room capacity (a) (refer norms given above)	Number of rooms (b)	Capacity per Block (c) = (a) x (b)
Total					

#### B. Summary:

Total hostel capacity required for boys (refer norms given above)	Total hostel capacity available for boys	Deficiency %

## ii. Girls Hostel:

Norms:

For the first year students a maximum of three in a room and for others single seated rooms to be provided.

Total hostel capacity required for girls is 50% of girls' strength in the college if the college is located within 20 km of a large city

Total hostel capacity required for girls is 100 % of girls' strength in the college if the college is situated in other locations.

#### A. Details:

SI. No.	Block number	Carpet area of room (sq.m.)	Room capacity (a) (refer norms given above)	Number of rooms (b)	Capacity per Block (c) = (a) x (b)
Total					

### B. Summary:

Total hostel capacity required for girls	Total hostel capacity available for girls	Deficiency %
(refer norm given above)		

# iii. Other related building areas:

SI. No.	Description of the area	Required carpet area (sq.m.) per hostel unit of 120 students	Projected area required (sq.m.)	Available carpet area (sq.m.)	Deficiency %
1.	Kitchen and Dining Hall	200			
2.	Indoor games cum Common hall	150			
3.	Medical room (for all hostels)	50	50		
4.	Canteen	50			
5.	Warden office	18 Additional four rooms of 9 sq.m. each within the blocks			
6.	Guest rooms	18 (2 nos.) Additional four rooms of 9 sq.m. each within the blocks			-
7.	Toilets	75			

## iv. Details of Teachers' Hostel available:

(It is desirable to have a hostel type accommodation for 25% strength of the teachers with the norm of 30 sq.m. carpet area per teacher inclusive of an attached toilet room.)

# 23. Physical Education

SI.	Description	Details
No.		
1	Total area of the play ground	
2	Details of the outdoor games	1.
	available	2.
		3.
		4.
3	Details of the Indoor games	1.
	available.	2.
		3.
		4.
4	Details of gymnasium available	1.
		2.
		3.
		4.
5	Fund allotted to Physical Education	

# 24. Training and Placement Cell

# i. Details of the staff:

SI. No.	Name	Designation	Department

# ii. Facilities available:

SI. No.	Item	Available (Y/N)
1	Conference hall	
2	Interview room	
3	OHP	
4	LCD projector	
5	Audio visual facilities	

#### 25. Alumni Association:

Is alumni association functioning in the college? Y/N

### 26. Other amenities:

#### i. Health Centre:

SI. No.	Name of the staff	Designation	Qualification	Specialization	Experience

# ii. Others

SI. No.	Amenity	Available (Y/N)
1	Vehicle parking stand	
2	Transport facilities for staff and students	
3	Bank /Extension counter facility	
4	Telephone facility	
5	Drinking water facility	
6	Generator (min. 25 KVA)	

# 27. Registers and Records

SI. No.	Name of Register/Record	Is it maintained? (Y/N)
1)	Department wise faculty profile	
2)	Department wise Non-Teaching Staff Profile	
3)	Register of attendance and assessment record (programme wise)	
4)	Attendance for teaching and non-teaching staff	
5)	Advertisement for recruitment of faculty members	
6)	Minutes of the meeting of Staff Selection Committee	
7)	Appointment / offer letters issued to faculty members	
8)	Joining report of staff members	
9)	Record of students (programme wise)	
10	Academic performance record of students (programme wise)	
11	Record of student projects (UG, PG & PhD)	
12	Register of attendance and assessment record (programme wise)	
13	Record of scholarships / fellowships / financial assistance for students	
14	Book of Transfer certificate (including counterfoils)	

SI. No.	Name of Register/Record	Is it maintained? (Y/N)
15	Copy of Regulations, curriculum and syllabi (programme wise)	
16	Record of Research / Consultancy / Extension activities (department wise)	
17	Record of Achievements, Award and Recognition (department wise)	
18	Master time table and Academic calendar	
19	Accession register for library	
20	Stock register for equipment	
21	Stock register for consumable	
22	Stock register for furniture	
23	Stock register for tools and plants	
24	Minutes of the meetings of the Governing council of the college	
25	Minutes of the meeting of the Planning and Monitoring Board	
26	Minutes of the meetings of the Registered Society / Trust of the college	
27	Year-wise audited statement of accounts of the college and also in the format specified by the University	
28	Cash book of the college	
29	Acquittance register	
30	Fee receipt books (including counterfoils)	
31	Funds position / bank certificates / FDR copies to indicate financial stability	

#### 28. Certificates

The **originals** of the following are to be produced for verification <u>at the time of inspection</u> to the inspection committee members (**copies need not be enclosed along with application**)

SI. No.	Certificate	Available (Y/N)
1.	Village field map / Field measurement book sketch	
2.	College site map / plan.	
3.	Existing building plan.	
4.	Building sketch [details of Rooms, Laboratories, Stores, Library etc. for all the floors]	
5.	Building plan proposed.	
6.	Irrevocable Trust Registration Deed.	
7.	Documentary proof for ownership of lands exclusively earmarked for the College.	
8.	Legal opinion from not below the rank of the Govt. pleader on the ownership of land and extent of coverage.	
9.	Land use Certificate from an appropriate authority (RDO) and Land conversion certificate from the Directorate of Town & Country planning.	
10.	# Certificate under Section 37 (B) of Tamil Nadu Land Reforms (Land fixation and Ceiling) Act, 1961.	
11.	# State Government permission for starting the College.	
12.	AICTE approval for the programme(s) (copy to be enclosed).	
13.	Documents showing the financial viability of the college [details of financial budgeted revenue and expenses statements (Current year)].	
14.	Composition of the Governing council.	
15.	Master Time – Table for all courses and all sections with classroom arrangements.	
16.	Audited statement of accounts of the college for the past three years.	
17.	Certificates for fire/boiler/electrical safety from competent authorities.	
18.	Certificate from Health Inspector.	
19.	Certificate from PWD Superintendent Engineer for the structural stability of the building	
20.	Building and equipment insurance certificate.	

# The application for affiliation will be considered without prejudice to the right of the University requiring the production of certificate under Section 37B of Tamil Nadu Land Reforms (LC) Act 1961 and the permission of the Government to establish the college required under Section 5 (ac) of Anna University Act, 1978 subject to the verdicts of the Hon'ble High Court of Madras.

# 29. Inspection fee:

Details of Inspection fee remitted: (The D.D. has to be enclosed with the application)

SI. No.	Programmes for which affiliation is sought for the year of application	Inspection fee per programme	Number of programme(s)	Total Amount (Rs)
1.	Inspection fee for each additional academic programme	Rs. 25,000/-		
2.	Inspection fee for each of the already affiliated programme with increase in intake	Rs. 25,000/-		
3.	Inspection fee for each of the already existing programme with existing / reduction in intake	Rs. 12,500/-		
4.	Inspection fee for permanent affiliation for each of the already affiliated programme with existing / reduction / increase in intake	Rs. 25,000/-		
		Grand Total		
D.D. No	Date	<u>.</u>		
Name of	the Bank & Branch			
•	D. to be drawn in favour of 'The Chennai – 600 025)	e Director, Centre for Ai	ffiliation of Institution	ns, Anna University

#### 30. Endorsement of the Principal

I, Thiru. /Tmt \_\_\_\_\_\_ on behalf of the (college name) \_\_\_\_\_\_ hereby declare that the particulars furnished in the application are correct to the best of my knowledge.

**Principal** (Name in Capital Letters)

Place:

Date:

#### 31. Declaration by the Management

I, Thiru/Tmt \_\_\_\_\_\_\_ on behalf of the trust, viz., \_\_\_\_\_\_\_ hereby declare that the particulars furnished in the application are correct to the best of my knowledge. No programme(s) will be started without the prior approval of the AICTE and the grant of affiliation by the Anna University for the academic year concerned and all the original documents related to the particulars given in the application will be produced at the time of inspection and whenever called for.

> Chairman/Secretary (Name in Capital Letters)

Place:

Date:

# ANNEXURE I

# (Refer Item 15(ii) of the Application for Affiliation)

# FACULTY REQUIREMENT FOR A GIVEN TOTAL SANCTIONED STRENGTH (S) FOR ALL ACADEMIC PROGRAMMES EXCEPT FOR B.ARCH. PROGRAMMES

Total sanctioned	No. of faculty members required (R)			
strength (S)	Professor	Asst. Prof.	Lecturer	Total
30	1/0	1/2	2	4
45	1/0	1/2	2	4
60	1/0	1/2	2	4
75	1/0	1/2	3	5
90	1	1	4	6
105	1	1	5	7
120	1	1	6	8
135	1	2	6	9
150	1	2	7	10
165	1	2	8	11
180	1	2	9	12
195	1	2	10	13
210	1	3	10	14
225	1	3	11	15
240	1	3	12	16
255	1	3	13	17
270	2	4	12	18
285	2	4	13	19
300	2	4	14	20
315	2	4	15	21
330	2	4	16	22
345	2	5	16	23
360	2	5	17	24
375	2	5	18	25
390	2	5	19	26
405	3	6	18	27
420	3	6	19	28
435	3	6	20	29
450	3	6	21	30
465	3	6	22	31
480	3	7	22	32
495	3	7	23	33

Total sanctioned	No. of faculty members required (R)				
strength (S)	Professor	Asst. Prof.	Lecturer	Total	
510	3	7	24	34	
525	3	7	25	35	
540	4	8	24	36	
555	4	8	25	37	
570	4	8	26	38	
585	4	8	27	39	
600	4	8	28	40	
615	4	9	28	41	
630	4	9	29	42	
645	4	9	30	43	
660	4	9	31	44	
675	5	10	30	45	
690	5	10	31	46	
705	5	10	32	47	
720	5	10	33	48	
735	5	10	34	49	
750	5	11	34	50	
765	5	11	35	51	
780	5	11	36	52	
795	5	11	37	53	
810	6	12	36	54	
825	6	12	37	55	
840	6	12	38	56	
855	6	12	39	57	
870	6	12	40	58	
885	6	13	40	59	
900	6	13	41	60	
915	6	13	42	61	
930	6	13	43	62	
945	7	14	42	63	
960	7	14	43	64	
975	7	14	44	65	
990	7	14	45	66	
1005	7	14	46	67	

# ANNEXURE II

# (Refer Item 15(ii) of the Application for Affiliation)

### FACULTY REQUIREMENT FOR A GIVEN TOTAL SANCTIONED STRENGTH (S) FOR B.ARCH.

#### PROGRAMMES

Total sanctioned	No. of faculty members required (R)			
strength (S)	Professor	Asst. Prof.	Lecturer	Total
20	1/0	0/1	3	4
30	1/0	1/2	2	4
40	1/0	1/2	2	4
50	1/0	1/2	3	5
60	1/0	1/2	4	6
70	1/0	1/2	5	7
80	1/0	1/2	6	8
90	1	2	6	9
100	1	2	7	10
110	1	2	8	11
120	1	2	9	12
130	1	2	10	13
140	1	3	10	14
150	1	3	11	15
160	1	3	12	16
170	1	3	13	17
180	2	4	12	18
190	2	4	13	19
200	2	4	14	20

# ANNEXURE 14 Report of the Inspection Committee for Affiliation (vide Section R22)



# ANNA UNIVERSITY CHENNAI CHENNAI - 600 025

# Inspection Report for the Grant of Affiliation, year of application

:

1. Name & Address of the College

#### 2. Name of the Members of the Inspection committee

- i. Chairman
- ii. Member
- iii. Member
- iv. Member
- 3. Programmes Inspected

SI.No.	Degree	Programme	Type of Affiliation granted for the previous academic year	Sanctioned Intake for the previous academic year	Intake to be considered for the year of application
1.					
2.					
3.					
4.					
5.					

Chairman Inspection committee

#### Table 1 - PRINCIPAL

		If Available						
Assigned Weightage (W)	Is Regular Principal Available / Not Available?	Name of the Principal	Date of Joining	Is the age of the Principal as per AICTE norms (65 years or less) (Yes / No)	Is the qualification of the Principal as per AICTE norms (Yes / No)	Secured Marks * (5 / 0)		
5								

## (Common to all programmes offered at college)

(i) 5 marks to be awarded if the Principal satisfies all the AICTE norms.
 (ii) 0 mark to be awarded if the Principal is not available / not eligible.

## Table 2 - LIBRARY - Books and General Ambiance

(Common to all programmes offered at college)

Category	Assigned Weightage (W)	Required	Available	Existing Deficiency % (D)	Secured Marks M=W x (100-D)/100
Volumes					
M1	2	1000			
M <sub>2</sub>	2				
M <sub>3</sub>	3	1000			
General Ambiance	1				
Total (A)	-	1			

M<sub>1</sub> - Number of volumes required to be available for Science and Humanities

 $M_2$  - Number of volumes required to have been procured upto June \_\_\_\_\_ (one year before the year of application to be given)

M<sub>3</sub> - Number of volumes required to have been added after June \_\_\_\_\_ (one year before the year of application to be given)

## Table 3 - GENERAL FACILITIES

(Common to all	programmes offered at of	college)
	programmes onered at e	uncycj

SI.	No	Details	Grade#	Grade Point#
Α.		Central Computing Facility (such as No. of terminals, LAN connection and softwares)		X=
В.	1.	Financial viability		<b>У</b> 1
	2.	Class room		<b>y</b> <sub>2=</sub>
	3.	Power supply - Capacity of transformer (KVA) - Capacity of standby generator(KVA)		y <sub>3=</sub>
	4.	Water supply (Availability of potable water)		<b>y</b> <sub>4=</sub>
	5.	Approach road		<b>y</b> 5=
	6.	Hostels (Boys and Girls)		y <sub>6=</sub>
	7.	Canteen facility		<b>У</b> 7=
	8.	Playground (Gymnasium, Facilities for indoor & outdoor games)		y <sub>8=</sub>
	9.	Student amenities (Such as chilled drinking water supply, lights and fans in all classrooms, common rooms, Recreation room, Reading room, communication, Photo copying and toilets for boys and girls)		<b>у</b> 9=
	10.	Transport (availability of buses and charges collected)		<b>y</b> <sub>10=</sub>
	11.	Medical facilities		<b>y</b> <sub>11=</sub>
	12.	Safety certificates		<b>y</b> <sub>12=</sub>
	13.	Special amenities for physically challenged persons		<b>y</b> 13=
	14.	Co-curricular activities (N.S.S, N.C.C, N.S.O, Y.R.C)		<b>y</b> <sub>14=</sub>
	15.	Auditorium, seminar and conference halls		<b>y</b> 15=
	16.	Placement and Training facilities		<b>y</b> <sub>16=</sub>
	17.	Maintenance of records		<b>y</b> <sub>17=</sub>
	18.	8. Functioning of Planning and Monitoring Board, Discipline and Welfare committee, and Complaint cum Redressal committee		<b>y</b> <sub>18=</sub>
	19.	Alumni Association (If applicable)		y <sub>19=</sub>
	20.	General ambience		<b>y</b> <sub>20=</sub>
		Total marks secured for general facilities = $[3 \cdot x] + [7 \cdot (\sum y_i) / 20]$		

- Refer 'Table - GP' in Annexure - I

-

Chairman Inspection Committee

## **PROGRAMMEWISE EVALUATION**

Date and Time of the Inspection	

:

:

1. Name & Address of the College

## 2. Name of the Programme

3. Faculty

3.1. B.E. / B. Tech.

## Table 4a

To be used if the year of introduction of the programme is in the academic year \_\_\_\_\_ (three years before the year of application to be given) or before

Category	Faculty cadre	Assigned Weightage (W)	Required	Available	Existing Deficiency % (D)	Secured Marks M=W x (100-D)/100
Engineering	Staff : Student Ratio *	20	1:15	T®/(A+B+C) =	Not applicable	
(for II, III and IV year of the	Professor	7		A =		
programme concerned)	Asst. Professor	8		B =		
	Lecturer	Not Applicable		C =		Not applicable
Science & Humanities (for I year of all the existing programmes)	All the cadres put together	10				
Total						

@ - Total sanctioned intake of II, III and IV year, T = \_\_\_\_\_

\*- Refer 'Table - SSR 1' in Annexure - I for weightage

To be used if the year of introduction of the programme is in the academic year \_\_\_\_\_ (two years before the year of application to be given)

Category	Faculty cadre	Assigned Weightage (W)	Required	Available	Existing Deficiency % (D)	Secured Marks M=W x (100-D)/100
Engineering (for II and III	Staff : Student Ratio *	20	1:15	T <sup>@</sup> /(A+B+C) =	Not applicable	
year of the programme concerned)	Professor	5		A =		
	Asst. Professor	5		B =		
	Lecturer	Not Applicable		C =		Not applicable
Science & Humanities (for I year of all the existing programmes)	All the cadres put together	15				
Total						

@ - Total sanctioned intake of II and III year, T = \_\_\_\_\_

\*- Refer 'Table – SSR 1' in Annexure - I for weightage

To be used if the year of introduction of the programme is in the academic year \_\_\_\_\_ (one year before the year of application to be given)

Category	Faculty cadre	Assigned Weightage (W)	Required	Available	Existing Deficiency % (D)	Secured Marks M=W x (100-D)/100
Engineering	Staff : Student Ratio *	20	1:15	T®/(A+B+C) =	Not applicable	
(for II year of the programme concerned)	Professor + Asst. Professor	5	(Prof. +AP)	A =		
	Lecturer	Not Applicable		B =		Not applicable
Science & Humanities (for I year of all the existing programmes)	All the cadres put together	20				
Total						

@ - Total sanctioned intake of II year, T = \_\_\_\_

\*- Refer 'Table - SSR 1' in Annexure - I for weightage

## 3.2 B. Arch.

<u> Table – 4b</u>

Faculty cadre	Assigned Weightage (W)	Required	Available	Existing Deficiency % (D)	Secured Marks M=W x (100-D)/100
Staff : Student ratio *	25	1:10	T <sup>@</sup> /(A+B+C) =	Not applicable	
Professor	10		A =		
Asst. Professor	10		B =		
Lecturer	Not Applicable		C =		Not applicable
				Total	

@ - Total sanctioned intake of I, II, III, IV and V year, T = \_\_\_\_\_

\*- Refer 'Table – SSR 2' in Annexure - I for weightage

<u> Table – 4c</u>

Faculty cadre	Assigned Weightage (W)	Required	Available	Existing Deficiency % (D)	Secured Marks M=W x (100-D)/100
Staff : Student ratio *	25	1:15	T <sup>@</sup> /(A+B+C) =	Not applicable	
Professor	10		A =		
Asst. Professor	10		B =		
Lecturer	Not Applicable		C =		Not applicable
				Total	

@ - Total sanctioned intake of I and II year, T = \_\_\_\_\_

\*- Refer 'Table – SSR 1' in Annexure - I for weightage

3.4 M.E./M. Tech.

<u> Table – 5a</u>

Qualification of the Faculty member (in the field of specialization)	Assigned Weightage (W)	Required	Available #	Existing Deficiency % (D)	Secured Marks M=W x (100-D)/100
Ph.D.	20	1			
M.E./M.Tech.	30	2			
Total					

<sup>#</sup> Faculty members already taken into account for B.E./B.Tech. programmes should not be considered here.

Tabl	e – 5b

Faculty cadre	Assigned Weightage (W)	Required	Available	Existing Deficiency % (D)	Secured Marks M=W x (100-D)/100
Staff : Student ratio *	30	1:15	T <sup>@</sup> /(A+B+C) =	Not applicable	
Professor	10		A =		
Asst. Professor	10		B =		
Lecturer	Not Applicable		C =		Not applicable

@ - Total sanctioned intake of I and II year, T = \_\_\_\_\_

## \*- Refer 'Table – SSR 1' in Annexure - I for weightage

## 3.6.M.C.A.

## <u> Table – 5c</u>

Faculty cadre	Assigned Weightage (W)	Required	Available	Existing Deficiency % (D)	Secured Marks M=W x (100-D)/100
Staff : Student ratio *	30	1:15	T@/(A+B+C) =	Not applicable	
Professor	10		A =		
Asst. Professor	10		B =		
Lecturer	Not Applicable		C =		Not applicable
				Total	

@ - Total sanctioned intake of I, II & III year, T = \_\_\_\_\_

\*- Refer 'Table - SSR 1' in Annexure - I for weightage

## 4. LIBRARY - Journals

Table – 6	
-----------	--

		Required		Available			Existing Deficiency	Secured Marks	
Programmes	Assigned Weightage (W)	National	Inter- national	Total (T1)	National	Inter- national	Total (T <sub>2</sub> )	% [100(T1-T2)/ T1] (D)	M =W x (100-D) / 100 (B)
B.E/B.Tech.	2	6	6	12	(Max. 6)				
M.E./M.Tech.	2	-	1	1		*			
B.Arch.	2	5	5	10	(Max. 5)				
M.B.A.	2	15	15	30	(Max. 5)				
M.C.A.	2	6	6	12	(Max. 6)				

\* - International Journal should be in the field of specialisation and also it should be ensured that the Journals available for M.E./M.Tech should be over and above the requirement for the related B.E./B.Tech Programme.

## Total marks for Library (A)<sup>e</sup> +(B)

"For the value of (A), refer "Table 2 - Library – Books and General Ambience"

## 5. LABORATORY

SI. No.	Regulation	Year / Semester	Code No. and Name of the Laboratory	Grade *	Grade Point *	
1.						
2.						
3.						
4.						
5.						
N-1						
Ν						
Grade Po	Grade Point Average (GPA) = $(\Sigma x_i) / N$					
Total Marks = <b>GPA x 30</b> for UG programmes and <b>GPA x 25</b> for PG programmes with laboratory						
courses						
N = Tota	l No. of Labor	atory Cours	es			
		•				

<u> Table – 7</u>

'- Refer 'Table - GP' in Annexure - I

## 6. TOTAL MARKS SECURED

## 6.1 B.E./B. Tech./B.Arch./M. Sc.

## <u> Table – 8</u>

S. No	Parameter	Maximum Marks	Marks secured
Ι.	Principal (Refer Table 1)	5	
11.	Faculty (Refer Table 4a/4b/4c as the case may be)	45	
111.	Library (Refer Table 2 & 6)	10	
IV.	Laboratory (Refer Table 7)	30	
V.	General Facilities (Refer Table 3)	10	
	Total	100	

6.2 M.E./M.Tech. / M.B.A./M.C.A. (to be used for programmes with laboratory courses)

S. No	Parameter	Maximum Marks	Marks secured
Ι.	Principal (Refer Table 1)	5	
11.	Faculty (Refer Table 5a/5b/5c)	50	
111.	Library (Refer Table 2 & 6)	10	
IV.	Laboratory (Refer Table 7)	25	
V.	General Facilities (Refer Table 3)	10	
	Total	100	

## <u> Table – 9a</u>

## 6.3 M.E./M.Tech. / M.B.A./M.C.A. (to be used for programmes without any laboratory course) <u>Table – 9b</u>

S. No	Parameter	Maximum Marks	Marks secured
I. Principal (Refer Table 1)		5	
II.	Faculty (Refer Table 5a/5b/5c)	50	
III. Library (Refer Table 2 & 6)		10	
IV.	General Facilities (Refer Table 3)	10	
	Total	75	(M)
	Marks se		

Chairman Inspection committee

## 7. Steps taken towards variation in intake requested for

(information to be obtained from the college irrespective of the availability of AICTE approval)

а.	Number of additional faculty members appointed	Science and Humanities	Engineering
b.	Are additional laboratory requirements made available?	Yes	No
C.	Number of additional classrooms created		
d.	Number of additional hostel rooms created	Boys	Girls
e.	Any Other information		

Chairman Inspection committee

## **EVALUATION OF ADDITIONAL PROGRAMMES**

(information to be obtained from the college irrespective of the availability of AICTE approval)

Na	me of the College		
Na	me of the Programme		
a.	Number of additional faculty members appointed	Science and Humanities	Engineering
b.	Is separate building constructed for the proposed programme?	Yes	Νο
C.	Are additional laboratory requirements made available?	Yes	No
d.	Number of additional classrooms created		
e.	Number of additional hostel rooms created	Boys	Girls
f.	Any Other information		

Chairman Inspection committee

## INSPECTION REPORT - SUMMARY YEAR OF APPLICATION

Date and Time of the Inspection	

- 1. Name & Address of the College :
- 2. Marks secured by each Programme inspected:

SI.No.	Degree	Programme	Marks Secured out of 100
1.			
2.			
3.			
4.			
5.			

## **INSPECTION COMMITTEE**

	Name	Signature
Chairman		
Member		
Member		
Member		

For	office	use	onlv



முதலாம் பரிசு பெற்ற மௌண்ட் சீயோன் பொறியியல் மற்றும் தொழில்நுட்பக் கல்லூரி மாணவர்களுக்கு மாவட்ட கலெக்டர் கணேஷ் பரிசும் பாராட்டு பத்திரமும் வழங்குகிறார்.

புதுக்கோட்டை

# மௌண்ட் சீயோன் பொறியியல் கல்லூரி பாணவர்களுக்கு முதலமைச்சர் விடு புதுக்கோட்டை, நவ 26- அரசு எடுத்துள்ள நடவடிக் காம் ராதுன், ஆய்

பதுக்கோட்டைமௌண்ட கைகள் பற்றி புகார் ஆகியோருக்கும் நவீன சீயோன் பொறியியல் தெரிவித்தவர்கள் தங்கள் அளவின செயல்முறை மற்றும் தொழில்றுட்பக் செல்பேசியிலேயே அறிந்து திட்டத்திற்கான மூன்றாம். புதுக்கோட்டை மௌண்ட

கொண ரும் வகையில் இத்தகைய மக்களுக்கும். முதலாம் பரிசு பெற்ற மாண வர் களிடமிருந்து அரசுக்கும் பயன்படும் அரிய மின்மனுசெயல்முறைதிட்டத் செயல்முறைத் திட்டங்கள் கண்டுபிடிப்புளால் இந்த திறகு மொண்ட் சியோன் பெறப்பட்டன. அவற்றை செயல்முறைகள் முதல் வர் பொற் வியல் கல்லூரி முறையாக ஆய்வு செய்து விருதுக்கு தேர்வு செய்யப் இயக்குனர் பேராசிரியர் சிறந்த செயல்முறைத் திட்டங் பட்டன. களுக்கு தமிழக முதல்வர் இதற்கான பரிசு காட்டியால் வெழி

தாவு சையயப்பட்டன. தொழில்நட்பக் கல்லூரியின் கல்லூரி முதல்வர் டாக்டர் முதல் பரிசு பெற்ற மாணவர்கள் பிரவின் சஞ்சு பால்முருகன் ஆகியோர் மின் மனு முறையை ஆபெல், விபின் பால், பாராட்டு தெரிவித்தனர். பயன்படுத்தி பொதுமக்கள் தங்கள் குறைகளை மின்ன னுவியல் கருவிகளான ஆண்ட்ராய்டு. ஆப்பிள் மற்றும் பொதுவாக அனை வராலும் பயன்படுத்தப்படும் பேசிகள் செல்லிடைப் வாயிலாக புகைப்படத்துடன் அரசுக்கு தெரியபடுத்த அரசுக்கு தெரியபடுத்த இயலும் என்பதைமௌண்ட் சீயோன் பொறியியல் கல்லூரி மாணவர்கள் செய் முறையில் விளக் Manniaan.

அரசும் புகார் தெரி விப்பவர் எங்கு இருந்து தெரிவிக் கின்றார் என்ப தையும், அவருடைய செல் பேசி எண்ணின் உதவியால்

திலிருந்தும் மாண இருப்பு விபரங்களை தொகையும்,பாராட்டுபதத வர்களின் மின் ஆளுமைத் உடனுக்குடன் அறிந்து ரமும் வழங்கி பாராட் திறமைகளைக் வெளிக் கொள்ள முடிகின்றது. டினார். கொணரும் வகையில் இத்தகைய மக்களுக்கும். முதலாம் பரிசு பெற்ற பான்,பிம் வரையில் இத்தகைய மக்களுக்கும். முதலாம் பரிசு பெற்ற

ஆல்ட்ரின் யற்றும் எதாழுலையிடாசு செல்பேசியிலேயே அறிந்து திட்டத்திற்கான முன்றாம் கல்லூரி மாணவர்கள் மின் கொள்ள முடிகின்றது. ஆன்றுமைக்கான போட்டியில் மூன்றாம் பரிசு பெற்ற தமிழக முதல்வர் விருதிற் மற்றொரு செயல் முறைத் கான முதல் மற்றும் திட்டமான நவின அன பாண்டிருருகன், சிதல்வரன் செய்யப்பட்டனர். காடிகளில் உள்ளகுடியுரிமை அதியோருக்கும் மாவட்ட சய்யப்பட்டனர். காடிகளில் உள்ள குடியுரிமை ஆகியோருக்கும் மாலட்ட தமிழ்நாடு முழுவ பொருட்கள் அனைத்து கலெக்டர் கணேஷ் பரிகத் லருந்தும் மாண இருப்பு விபரங்களை தொகையும், பாராட்டு பத்தி

சுறந்த பசயல்முறைத் திட்டங் பட்டன. களுக்கு தமிழக முதல்வர் இதற்கான பரிச் காட்டியாக இருந்தார். விருது வழங்கப்பட்டன. இப்போட்டியில் கோட்டை வழங் கும் விழா புதுக் பரிசு பெற்ற மாணவர்கள் மௌண்ட் சீயோன் பொறி அலு வலகத்தில் நடை சீயோன் கல்வி நிறுவனங் கஸ்லூரி மாணவர்கள் இவ்வி மாலில் பிட் கலலூரரி மாணவர்கள் பெற்றது. சமர்பித்த மின்மனு மற்றும் மனு செயல் முறைத் மொண்ட் சியோன் நவீன அளவினம் ஆலிய திட்டத் திற்காக முதல் பொரதன் செல்லையா. செயல் முறைத் திட்டம் பரிசு மௌண்ட் சியோன் தெர்வு செய்யப்பட்டன. முதல் பரிசு பெட் முதல் பரிசு பெட்

மாலை மலா

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தீருச்சி



புதுக்கோட்டை லேனாவிளக்கு மௌண்ட் சீயோன் பொறியியல் கல்லூரியில்

## மாணவர்கள் மின் ஆளுமைக்கான போட்டி; முதல்வர் விருதிற்கான முதல் பரிசு, 3-ம் பரிசுக்கு தேர்வு

பதுக்கோட்டை, நவ. 26- மேற்கொள்ள மௌண்ட் சீயோன் பொறியியல் புகார் மற்றும் தொழில்நுட்பக் கல்லூரி செல் மாணவர்கள் மீன் ஆளுமைக்கான முடிகின்றது. மூன்றாம் பரிசு பெற்ற போட்டியில் தமிழக முதல்வர் மற்றொரு செயல்முறைத் திட்டமான விருதிற்கான முதல் மற்றும் முன்றாம் தவீன அளவினத்தால் கூட்டுறவு பரிசுக்கு தேர்வு செப்யப்பட்டனர். விருதுகள் பெற்ற மாணவர்களுக்கு மாவட்ட கலெக்டர் சு.கணேஷ் பரசுத் தொகையும் பாராட்டு பத்திரமும் வழங்கி பாராட்டினார்.

தமிழ்தாடு முழுவதிலிருந்தும் பொறிமியல் மற்றும் தொழில்நுட்பக் சுல்லூரி மாண வர்சுளின் மின் ஆளுமைத் இறமைகளைக் வெளிக்கொணரும் வகையில் மாணவர்களிடமிருந்து செயல்முறைத் <u> இட்டங்கள் பெறப்பட்டன. அவற்றை</u> முறையாக ஆய்வு செய்து சிறந்த செயல்முறைத் இட்டங்களுக்கு வழங்கப்பட்டன.

இப்போட்டியில் Guerrain சீவான் பொறியியல் மற்றும் ஆகியோருக்கும், நலின் அன்றின தொழில்நுட்பக் கல்லூரி மாணவற்கள் செயல்முறை இட்டத்திற்கான சமர்பித்த மின்மனு மற்றும் நலீன முன்றாம் பிசை மாணவர்கள் கூற்சன. அளவினம் ஆகிய செயல்முறைத் விஷ்வா, ஆதர்ஷ், விக்னேஷ்வரன், அளவனம் ஆனம் சையலருகளுத்த இட்டம் முதல்வரின் விருதுகளுக்கு தேர்வு செய்யப்பட்டன. முதல் தேர்வு செய்யப்பட்டன. முதல பரிசு பெற்ற மின்மனு முறையை பயன்படுத்தி பொதுமக்கள் தங்கள் குறைகளை கருவிகளான ஆண்ட்ராய்டு, ஆப்பின் பரிசு பெற்ற மின்மனு செயல்முறை கருவிகளான ஆண்டராபடு, ஆப்பட பரசு கடற்ற கையது செல்லகும் மற்றும் பொதுவாக அனைவராலும் இட்டத்திற்கு மொண்ட் சீயோன் பயன்படுத்தப்படும் செல்லிடைப் பொறியியல் கல்லூரி இயக்குனர் பேசிகள் வாயிலாக புசைப்படத்துடன் பேராசிரியர் ஜெய்சன் ஜெயபாரதன் அரசுக்கு தெரியபடுத்த இயலும் வழிகாட்டியாக இருந்தார். என்பதை மௌன்ட் 7யோன் பரிசு பெற்ற மாணவர்கள் பொறியியல் கல்லூரி மாணவர்கள் அனைவரையும் மௌன்ட் 7யோன் செய்முறையில் விளக்கினார்கள்.

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Bugut. 24035 புதுக்கோட்டை வேனாவிளக்கு எடுத்துள்ள நடவடிக்கைகள் பற்றி தெரிவித்தவர்கள் தங்கள் செல்பேசியிலேயே அறிந்து கொள்ள அங்காடிகளில் உள்ள குடியுரிமை பொருட்கள் அனைத்து பொருட்கள் அனைத்து இருப்பு விபரங்களை உடனுக்குடன் அறிந்து கொள்ள முடிகின்றது. இத்தகைய மக்களுக்கும், அரசுக்கும் பயன்படும் அரிய சுண்டுபிடிப்புளால் இத்த செயல்முறைகள் முதல்வர் விருதுக்கு தேர்வு செய்யப்பட்டன.

இதற்கான பரிசு வழங்கும் விழா புதுக்கோட்டை மாவட்ட கலெக்டர் அலுவலகத்தில் நடைபெற்றது.

இவ்விழாவில் மின்மனு செயல்முறைத் திட்டத்திற்காக முதல் பரிசு மௌண்ட் 9போன் பொறியியல் மாண்புமிகு தமிழக முதல்வர் விருது மற்றும் தொழில்நுட்பக் கல்லூரியின் மாணவர்கள் பிரவின், சஞ்சு ஆபெல், விபின் பால், சாம் ராஜன், ஆல்ட்ரின் விஷ்வா, ஆதர்ஷ், விக்னேஷ்வரன். பாண்டிமுருகன், சிதம்பரம், ரஞ்சித், gadegeivergein ஆகியோருக்கும் மாவட்ட கலெக்டர் சு.சுனேஷ் பரிசுத் தமக்கள் தங்கள் தொகையும், பாராட்டு பத்திரமும் மின்னனுவியல் வழங்கி பாராட்டினார்.முதலாம்

கல்வி திறுவனங்களின் தலைவர் மையருகற்றபல வனக்கானார்கள். கல்வி நறுவனங்களை தலைவற் அரசும் புகார் தெரிவிப்பவர் ஜெயபாரதன் செல்லையா, மௌண்ட் எங்கு இருந்து தெரிவிக்கின்றார் சீயோன் பொறிமியல் கல்லூரி என்பதையும் அவருடைய செல்பேல் இயக்குனர் பேராகிரியர் ஜெய்சன் என்னின் உதவியால் அவருடைய ஜெயபாரதன், கல்லூரி முதல்வர் முகவரியையும் அறித்து அத்தத்த டாக்டர் பாலமுருகள் ஆகியோர்

#### Mount Zion projects win prizes

Two projects submitted by students of Mount Zion College of Engineering and Technology have won the first and third prizes under the State government' egovernance awards. The projects titled, Snaport and Smart Ration, won the first and third prizes respectively, according to a release from the college.

The Snaport software project was guided by Jayson K. Jayabarathan, Director, Mount Zion College of Engineering and Technology. and carried out by a team of students comprising Praveen. Sanju Abel, Vibin Paul, Sam Rajan and Aldrin. The software enables interaction between officials and the public, who wish to highlight problems concerning them. The smart ration is a students' initiative showing the stock position regarding rice, cereals, sugar, and kerosene at ration shops. The project was carried out by Sudharsan, Viswa, Aadharsh, Vigneswaran, Pandimurugan, Chidambaram, Ranjith, and Rajeswaran, Pudukottai District Collector S. Ganesh gave away the prizes. Around 100 students and participants from industries got benefitted out the programme.

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Pudukottal Collector S.Ganesh presenting prize to winners of the Chief Minister's e-governance award to the students of Mount Zion College of Engineering and Technology.

# முதல்வர் விருதுக்கு மவுன்ட் சீயோன் கல்லூரி மாணவர்கள் தேர்வு

பதுக்கோட்டை நவ 26: அரசின் சார் பில் மாநில அளவில் நடத்தப்பட்ட மின் ஆளுமைத்திறன் போட்டியில் புதுகை மவுன்ட் சீயோன் பொறியி யல் கல்லூரி மாணவர்கள் முதலி டம், மூன்றாமிடம் வென்று முதல் வர் விருதுக்கு தேர்வு செய்யப்பட் டுள்ளனர்.

மாநில அளவில் மாணவர்களி டையே மின் ஆளுமைத் திறன்க னைக் வெளிக்கொணர்ந்து செயல் மூறைத் திட்டங்களைப் பெறுல் வகையில் போட்டி நடத்தப்பட டது. இதில், பங்கேற்ற கல்லூரிக ளின் திட்ட வரைவுகளில் சிறந்த செயல்முறை வரைவுத் திட்டங்கள் தமிழக முதல்வர் விருதுக்கு தேர்ந் தெடுக்கப்பட்டன.

இதில், மவுன்ட் சீயோன் பொறி யியல் கல்லூரி மாணவர்கள் சமர்ப் பித்த மின்மனு, நவீன அளவினம் ஆதிய செயல்முறைத் திட்டம் முதல் பரிகக்குத் தேர்வானது.

மின்மனு முறையைப் பயன்ப டுத்தி பொதுமக்கள் தங்கள் குறை களை செல்லிடப்பேசிகள் வாயி லாக புகைப்படத்துடன் அரசுக் குத் தெரியப்படுத்த முடியும். தவிர, புகார் அளித்தவர்கள் தங்கள் செல் லிடப்பேசியின் வாயிலாகவே தங்



மாநில அளவிலான மின் ஆளுமைப் போட்டிகளில் வென்ற மவுன்ட் சீயோன் பொறியியல் கல்லூரி மாணவர்களுக்கு பரிசு வழங்குகிறார் மாலட்ட ஆட்சியர் சு. கணேஷ்.

சுளது புகார் குறித்து அரசு மேற் கொண்டுள்ள நடவடிக்கைகளை கண்காணிக்க முடியும்.

மூன்றாம் பரிசு பெற்ற நவீன அளவினம்: கூட்டுறவு அங்காடிக னில் உள்ள அனைத்து குடிமைப் பொருட்களின் இருப்பு விவரங் களை உடனுக்குடன் அதிகாரிகள் அறிந்துகொள்ள முடியும்.

இத்தகைய பயன்களால், மவுன்ட் சியோன் சுல்லூரி மாணவர்களின் சண்டுபிடிப்புகள் முதல்வர் விரு

தினமனி 2 7 NOV 2015 திருச்சி துக்கு தேர்வு செய்யப்பட்டுள்ளன. இதையொட்டி, மாவட்ட ஆட்சியர கத்தில் நடைபெற்ற நிகழ்வில், மாண வர்களுக்கு பரிசுத்தொகை, சான் றிதழ்களை ஆட்சியர் க. கணேஷ் வழங்கினார்.

மேலும், பரிசு வென்ற மாணவர்சு ருக்கு கல்வி நிறுவனங்களின் தலை வர் ஜெயராரதன் செல்லையா, கல் லூரி இயக்குநர் ஜெ. ஜெய்சன், முதல்வர் பாலமுருகன் ஆகியோர் வாழ்த்து தெரிவித்தனர்.



மின் அள்ளமைப் போட்டியில் முதல்வர் விருது பெற்ற புதுக்கோட்டை மவுன்ட் சீயோன் பொறியி யல் ச ூரி மாணவர்களுக்கு பரிசு மற்றும் சான்றிதழ்களை கலெக்டர் கணேஷ் வழங்கினார்.

## மின் ஆளுமை போட்டி: மவுன்ட் சீயோன் வெற்றி

பதுக்கோட்டை, நவ.26-புதுக்கோட்டை மவுன்ட் #Guna பொறியியல் கல்லூரி மாணவர்கள் மின் ஆளுமைக்கானபோட்டி யில் தமிழக முதல்வர் விருதிற்கான முதல் மற்றும் மூன்றாம் பரிசுக்கு தேர்வு செய்யப்பட்டனர்.

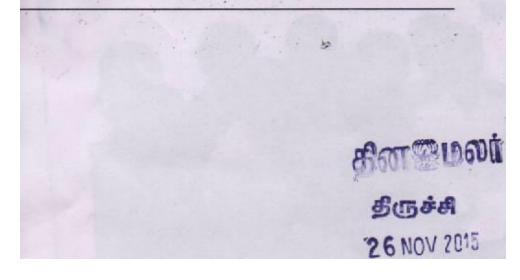
தமிழகம் முழுவதிலி ருந்தும் மாணவர்களின் மின் ஆளுமைத் திறமைக ளைக் வெளிக்கொணரும் வகையில் செயல்முறைத் தட்டங்கள் பெறப்பட்டன. அவற்றை, ஆய்வுசெய்து சிறத் சயல்முறைத் திட் டங்களுக்கு தமிழக முதல்வர்

விருது வழங்கப்பட்டது. ரின் ஆகியோருக்கும் நவீன இப்போட்டியில் புதுக் அளவின செயல்முறை கோட்டை மவுன்ட் திட்டத்திற்கான 3ம் பரிசு மவுன்ட் சயோன் பொறியியல் கல்லூரி மாணவர்கள் சமர்ப்பித்த மின் மற்றும் நவீன அளவினம் ஆகிய செயல்முறைத் திட்டங்கள் முதல்வரின் விருதுகளுக்கு தேர்வு செய்யப்பட்டன.

இதற்கான பரிசு வழங் கும் விழா புதுக்கோட்டை கலெக்டர் அலுவலகத்தில் நடைபெற்றது. விழாவில் மின் மனுசெயல்முறைத் தட்டத்தற்காக முதல் பரிசு மாணவர்கள் பிரவின், சஞ்சு ஆபெல், விபின் பால், சாம் ராஜன், ஆல்ட்

இட்டத்திற்கான 3ம் பரிசு மாணவர்கள் சுதர்சன், விஷ்வா; ஆதர்ஷ், விக் னேஷ்வரன், பாண்டி இதம்பரம். முருகள், ரஞ்சித், ராஜேஸ்வரன் ஆகி யோருக்கும் கலைக்டர் கணேஷ் வழங்கி பாராட்டி sann.

பரிசுபெற்ற மாணவர் களை கல்வி நிறுவனங் களின் தலைவர் ஜெயபார தன் செல்லையா, பொறி மியல் கல்லூரி இயக்குனர் ஜெய்சன், ஜெயபார்தன் கல்லூரி முதல்வர் பால முருகன் பாராட்டினர்.



## மின் ஆளுமை போட்டிக்கான தமிழக முதல்வர் விருது மௌண்ட் சீயோன் பொறியியல் கல்லூரி மாணவர்கள் தேர்வு

புதுக்கோட்டை, நல. 26-மௌண்ட் சயோன் பொறி யியல் மற்றும் தொழில்நுட்பக் கல்லூரி மாணவர்கள் மின் ஆளுமைக்கான போட்டியில் தமிழக முதல்வர் விருதிற்கான முதல் மற்றும் மூனறாம பாரிசுக்கு தேர்வு செய்யப்பட்டுள்ளனர்.

மாணவர்களின் மின் ஆளுமைத் திறமைகளைக் வெளிக் கொண் ரும் வகையில் மாணவர் களிடமிருந்து செயல்முறைத் கட்டங்கள் பெறப்பட்டன. டிவற்றை முறையாக ஆய்வு செய்து சிறந்த செயல்முறைத் தட்டங்களுக்கு மான்புமிகு தமிழக முதல்வர் விருது வழங்கப் பட்டன.

ூப்போட்டியில் மௌண்ட் சீயோன் பொறியியல் மற்றும் தொழில்நுட்பக் கல்லூரி மாண வர்கள் சமர்பித்தமின் மனு மற்றும் நவீன அளவினம் ஆகிய செயல் முறைத் திட்டம் முதல்வரின் விருதுகளுக்கு தேர்வு செய்யப் 1.11 1 687

முதல் பரிசு பெற்ற மின்மனு முறையை பயன்படுத்தி பொது மக்கள் தங்கள் குறைகளை மி னனுவியல் கருவிகளான ஆண்ட் ராய்டு, ஆப்பிள் மற்றும் பொது புதுக்கோட்டை வாக அனைவராலும் பயன்

படுத்தப்படும் செல்லிடைப் பேசிகள் வாயிலாகபுகைப்படத் துடன் அரசுக்கு தெரியப்படுத்த இயலும் என்பதை மௌண்ட் சீயோன் பொறியியல் கல்லூரி மாணவர்கள் செய்முறையில் விளக்கினார்கள். அரசும புகார் தெரிவிப்பவர் எங்கு இருந்து தமிழ்நாடுமுழுவதிலிருந்தும் தெரிவிக்கின்றார் என்பதையும், அவருடையசெல்பேசிஎண்ணின் உதவியால் அவருடைய முகவரி யையும் அறிந்து அந்தந்த துறைச்சார்ந்த நடவடிக்கையை மேற்கொள்ள இயலும். அரசு எடுத்துள்ள நடவடிக்கைகள் பற்றி பகார் - தெரிவித்தவர்கள் தங்கள் செல்பேசியிலேயே அறிந் துகொள்ளமுடிகின்றது.

> மூன்றாம் பரிசு பெற்ற மற்றொரு செயல்முறைத் திட்டமான நவீன அளவினத்தால் Jui Gogaj அங்காடிகளில் உள்ள குடியுரிமை பொருட்கள் அனைத்து இருப்பு விபரங்களை உடனுக்குடன் அறிந்து கொள்ள முடிகிறது. மக்களுக்கும், அரசுக்கும் பயன் படும் இத்தகைய அரிய கண்டு பிடிப்புகளால் இந்த செயல் முறைகள் முதல்வர் விருதுக்கு Catra Gounischicher

இதற்கான பரிசு வழங்கும் விழா மாவட்ட ஆட்சியர் அலுவலகத்தில்

நடந்தது, இவ்விழாவில் மின்மனு செயல்முறைத் இட்டத்திற்காக முதல் பரிசுமௌண்ட் சீயோன் பொறியியல் மற்றும் தொழில் நுட்பக்கல்லூரியின் மாணவர்கள் பிரவின், சஞ்சு ஆபெல், விபின் பால், சாம் ராஜன், ஆல்ட்லீஜீன் ஆகியோருக்கும் நவீன் அளவின செயல்முறைதிட்டத்திற்கான மூன்றாம் பரிசை மாணவகள் சுதர்சன், விஷ்வா, ஆதர்ஷ், விக் னேஷ்வரன், பாண்டி முருகன், சிதம்பரம், ரஞ்சித், ராஜேஸ்வரன் ஆகியோருக்கும் LOTALL ஆட்சியர் கணேஷ் பரிசுத் தொகையும்,பாராட்டு பத்திரமும் வழங்கி பாராட்டினார்.

முதலாம் பரிசு பெற்ற மின்மனு செயல்முறை திட்டத்திற்கு மௌண்ட் சீயோன் பொறியியல் கல்லூரி இயக்குனர் பேராசிரியர் ஜெய்சன் ஜெய்பாரதன் வழி காட்டியாக இருந்தார்.

பரிசுபெற்றமாணவர்கள் அனைவரையும் மௌண்ட் சீயோன் கல்விதிறுவனங்களின் தலைவர் ஜெய்பாரதன் செல் லையா, மௌண்ட் சீயோன் பொறியியல் கல்லூரி இயக்குனர் Cupront Lin 29 Linus and ஆகியோர் I ITTTI G தெரிவித்தனர்.



## **ABSTRACT:**

With over 76.65 million people, Tamil Nadu is one of the most populous states in India. As the population increases, the problems around the state in various sectors for the common man increases. Nowadays our lives have become busy and so people don't find the time to write letters to the concerned authorities to fix the public issues - instead they ignore these issues - hence most of these issues go unnoticed by the government. Hence we have designed a system through which users can register their complaints through their hand held devices or even through a web portal.

This project was inspired by the e-ticketing system that is being used in our college (Mount Zion College of Engineering and Technology). The system in our college allows staffs and students to report on the maintenance issues within the campus by logging into our college's web portal through which the administrators are aware of the issues inside the campus and so we thought of implementing a similar system that will be scalable and efficient when used by a large user base such as the population of an entire state through which the public can report issues on the go to the government. The system is extremely user friendly and can be used effectively even by people who are not technology native.

We have developed this system to run on multi platforms like Android, iOS and Windows smartphones. If the user cannot afford a smartphone he/she can always use the Internet to register their complaints. This software is multilingual and can be used in languages like English, Tamil, Hindi and can be adapted to any vernacular language with ease. We are planning to add more languages so that users can use this application in the language which they feel comfortable with.

This system works in real time and through this, the common people can register his complaints directly to the government and the complaints are directed to the respective authorities where they can be resolved. Registered users can file a complaint about a specific problem which they think the government can address. The user can upload a picture or a video file as proof of the issue/complaint. The location of the user can be obtained from the GPS in the smartphone which is used to register the issue.

Sl. No.	Criteria	Implementation Details	
1.	Service Focus	cus	
	Citizen Services	This system can be used in any electronic gadgets like mobiles, laptops and tablets.	
	Back office integration	The system can operate itself in the backend. The data is stored and retrieved directly from the databases.	
2.	Nature of Services		
	Transactional	The government officials can notify the users about the status of their complaint. The user can communicate with the government officials through the chat box provided.	
	Informational	The government can contact the citizen directly by sending an SMS or email.	
3.	Accessibility and Conv	enience	
	Availability across common platforms	We have designed a website through which the user can register himself and post a complaint	
	Availability in unique platforms		
4.	Cost effectiveness		
	Affordable charges to users	To use this system the user doesn't have to spend any extra payment. It can be accessed in any device with an internet connection in it	
5.	Security		
	Multi factor authentication	The user must enter his/her email id and mobile number for verification.	
	Encryption	We have designed this system to encrypt the user's password before the transmission through network to prevent the account from being hacked.	
	Basic Authentication	The user has to enter only his basic details like username and password to login to the system and register their issues.	
6.	Technology		
	Development Platforms	We have designed this system to run in different platforms of the latest version operating system.	
7.	Level of impact		
	Beneficial to all sections of people	This system doesn't require any expense and so it can be used by every people in the state.	

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# PROLOGUE

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## **1 PROLOGUE:**

## 1.1 INTRODUCTION:

Science and Technology has developed and is developing tremendously in the 21<sup>st</sup> century. The system which we designed is a part of the development. This system is designed to make our state a better place to live. In Tamil Nadu there are lots of issues and complaints that are being unnoticed by the government. Many people who are aware of the problems around them just ignore it instead of finding a way to fix it just because they don't take the hardship of going to a government office and writing letters to file a complaint about a specific issue.

The system allows the user to register themselves by providing their email id and mobile number. The registered user can file a complaint about a specific matter and the complaints are directed to the respective authorities depending on the priority. The priority is set by the user based on their needs of how soon the authorities have to fix the issue. The user can upload a photo or a video file for a proof. The complaints registered by the user will be categorised and sorted to different sectors and sent to the respective authorities.

The user can log into his account and view the status of his complaints that he has sent to the government. The government officials can view the complaints and send an update to the user about what action has been taken to fix the issue.

## 1.2 EXECUTIVE SUMMARY:

The system is designed to reach every common man of the state. This software helps to deal with the issues of our daily life and the problems we face. There have been similar projects developed before but none came out successfully. There's a similar system in Nasik Municipal Corporation System, Mumbai, Maharashtra. There has never been a system like this in Tamil Nadu and so we have designed this system which can be used in different platforms like Android iOS and Windows smartphones. In our modern world almost every teenager has a smartphone of their own and so we have developed mobile applications through which the user can register their complaints to the government.

## 1.3 **PROJECT DESCRIPTION:**

This system enables the common men to register things which they feel must be set right by the government. By this system government can be aware of things that need to be fixed around the state. Even this application can be used to control crimes around our locality. The speciality of this system is that it is available in different platforms like Android and IOS also. The application allows the user to upload photo or video files for a proof so that it will be easier for the administrator to realise the seriousness of the complaint and fix it as soon as possible. The below picture shows the login pages of Android, iOS and the Web.

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	submit	
Don't have an account? Sign Up!		
Register with eComplaints to post your Complaints.		
	Fig. 1.3.a MU	<b>JLTI-PLATFORM LOGIN SCREENS</b>



#### 1.3.1 Cost effectiveness:

This system requires very less amount of cost for both the developer and the stakeholder. In the case of registering a complaint. We have designed this application to work in different platforms. Every user having an Android or Apple or Windows smartphone can download this application and use it to register their complaints to the government. In case the user cannot afford to buy a smartphone he/she can always use the online web link.

#### 1.3.2 GPS:

The Global Positioning System (GPS) is a U.S. space-based global navigation satellite system. It provides reliable positioning, navigation, and timing services to worldwide users on a continuous basis in all weather, day and night, anywhere on or near the earth which has an unobstructed view of four or more GPS satellites.

We have used the GPS technology to track down the location of the user from where the complaint has been registered so that it will be easier for the administrator to locate the location and fix the issue. When the user registers a complaint the application triggers a request to turn on the GPS of the mobile and the location of the user is found and stored to the administrator's database.

## 1.3.3 Overview of IP-based geolocation:

IP-based Geolocation is mapping of an IP address or MAC address to the realworld geographic location of an Internet connected to a computing device or mobile device. Geolocation involves in mapping IP address to the country, region (city), latitude/longitude, ISP and domain name among other useful things.

IP-based Geolocation is mapping of an IP address or MAC address to the realworld geographic location of an Internet connected to a computing device or mobile device. Geolocation involves in mapping IP address to the country, region (city), latitude/longitude, ISP and domain name among other useful things.

## 1.4 **PROBLEM SPECIFICATION:**

Nowadays people are getting so busy with their works, that they don't even have time to have their breakfast properly; this busy life makes them so difficult to report about the small issues within their environment circle. And even if they had to complaint about a bigger issue they had to wait for so long in front of a government office just to file their issue.

But by the help of this system that is developed, the user can inform their issues to the government in easy and a fast way.

## 1.5 METHODOLOGY:

A User first creates an account through the registration form and then logins to the system and Clicking the "file a complaint button" will redirect the user to the complaint page. He should fill all the mandatory fields provided there and should submit the complaint. After filing the complaint the user can look at the status of the complaints in His/her home page, which is being updated by the government officers regularly.

The government officials to whom the complaints were sent are the secondary administrators, they can see the complaints and should respond to them.

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# FEATURES

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## **2 FEATURES:**

## 2.1 TECHNOLOGY: CROSS-PLATFORM:

This system is available as a website and also in different platforms like Android and iOS. This enables users of different platforms to have access to the application. We are working on creating applications for few other platforms also.

## 2.1.1 Android:



Android is the most successful and most popular mobile operating system ever developed. Almost 75% of the smartphone users have Android OS installed in their device.

Our app will be available in Play store so that any Android user can download the application for their device. This application has the feature of uploading a photograph for a proof. Users can take a photograph to explain their complaints with a proof. We believe by introducing this application for Android users many common people can be benefited. We have also added the GPS technology in this application. The application triggers the GPS device in the mobile and is used to track down the location of the user from where the complaint has been registered so that it will be easy for the government officers to track down the location to fix the complaint.

#### □□□□ □□□ - **SnaPort** – Take a snap & report the issue

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2.1.2 iOS:



iOS (originally iPhone OS) is the most innovative mobile operating system created and developed by Apple Inc. and distributed exclusively for Apple hardware.

It is estimated that Apple sells over a million iPhones a year in India. Many users are fond of using iPads also. So we have designed this application to run in iOS also. This application is quite similar to the Android application. It also has GPS technology and an option to capture and upload photographs for a MOUNT ZION COLLEGE OF ENGINEERING AND TECHNOLOGY Page 16 79 proof. The users can register using the sign up option and create an account so that they can login to the portal and register their complaints whenever they feel to do so.

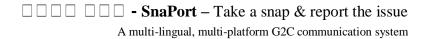


Fig. 2.1.b iOS HOME SCREEN

## 2.2 ACCESSIBILITY AND CONVENIENCE

## 2.2.1 MULTI LINGUAL:

A multilingual application is an application which can be deployed in several different languages and we are proud to present our application with multi language features. Our application is available in three different languages English, Tamil and Hindi. We are working on adding few more languages so that this application can be used by every users in the state.



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# வாய்மையே வெல்லும்

#### Email

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Enter your Password	
அனைத்தையும் நிரப்பவும்!	
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Fig. 2.2.a MULTILINGUAL iOS APP

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Fig. 2.2.b MULTI-LINGUAL LOGIN SCREENS

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#### 2.3 TRANSACTIONAL SYSTEM:

The service which we are providing through this is system is transactional method in which both the Government and the Citizen will be in touch.

The government officials can update the status of the complaints registered by the user by which the user receives a mail, a SMS in mobile and can also view the status by logging in to their account on the web.

We have also added a chat box in the website through which the user can communicate with the government officials and explain their complaints.

### 2.4 SECURITY:

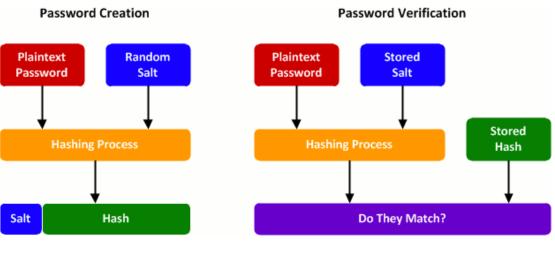
#### 2.4.1 ENCRYPTION:

We have two stages of verification. We will be verifying the user's email id and mobile number for maintaining a secure system. A verification mail and an SMS will be sent to the respective user.

We have also added an encryption system to secure the user's details. The user's details are encrypted before transmitting the details through the network so that the data cannot be hacked while transmission. We us the techniques of Hashing and Salting to encrypt the user's password to prevent the user's account from being hacked.

Storing all user passwords as clear text can result in a massive security breach if the password file is compromised. So to reduce this danger, we only store the hash digest of each password. To authenticate a user, the password presented by the user is hashed and compared with the stored hash. The password is often concatenated with a random, non-secret salt value before the hash function is applied. The salt is stored with the password hash. Because users have different salts, it is not feasible to store tables of pre computed hash values for common passwords. We use md5 hash algorithm to perform Hashing and Salting. **SnaPort** – Take a snap & report the issue

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### 2.4.2 URL ENCRYPTION:

In our system we have encrypted the URL of our webpage so that users can't view our parameters so that the security will be strong and can't be breached easily. To read an encrypted file, you must have access to a secret key or password that enables you to decrypt it. Unencrypted data is called plain text, encrypted data is referred to as cipher text.



# **WORKING ENVIRONMENT**

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# **3 WORKING ENVIRONMENT:**

## 3.1 HARDWARE & SOFTWARE REQUIREMENTS:

#### 3.1.1 Introduction:

This section deals with the devices which are required for accessing the software and the minimum requirements needed to develop the application. The user must have access to a PC or a smartphone to use this system. The main database is MySQL server which is used to store all the detail needs to run the application.

#### 3.1.2 Description:

The developed system can be accessed by android phones, iPhones and computers. For user easy access we have android app for android phones and IOS app for apple devices other than webpage. These devices help the user to give their complaints on spot with a media file. The media file helps the authority to verify the problems. And this devices gives each update for their complaint on their devices.

#### 3.1.3 Requirements for developing SnaPort:

Android Studio 1.0.1 X code Notepad++ Filezilla FTP server Wamp server mySQL

#### 3.1.4 Minimum requirements for using our software - SnaPort:

#### 3.1.4.1 Administrator: Hardware

#### System:

A PC connected with internet with speed of 512kbps and higher

#### Memory (RAM):

Capacity: Minimum 4.00 GB

#### Processor

Processor: Pentium Dual core and higher

Processor Speed: 2.00 GHz

#### Server:

Hard Disk Space: 1TB and above

#### 3.1.4.2 Administrator: Software

- 1. Wamp server
- 2. MYSQL workbench
- 3. Filezilla FTP server
- 4. OS used: Windows/IOS X

#### 3.1.4.3 Sub-Administrator: Hardware

#### System:

A PC connected with internet with speed of 512kbps and higher

#### Memory (RAM):

Capacity: Minimum 2.00 GB

#### Processor

Processor: Pentium Dual core and higher

Processor Speed: 2.00 GHz

#### Server:

Hard Disk Space: 500GB

#### 3.1.4.4 Sub-Administrator: Software

1. Web Browsers (Chrome, Mozilla Firefox etc.)

## 3.1.4.5 Users: Hardware

- System with internet connection of speed 256kbps (or)
- An Android Smartphone (or)
- A iPhone

#### 3.1.4.6 Users: Software

- A web browser ( Chrome, Mozilla Firefox, Opera mini)
- Android Smartphone with Android 2.3 (Gingerbread) and higher
- iPhone with iOS 7 and above

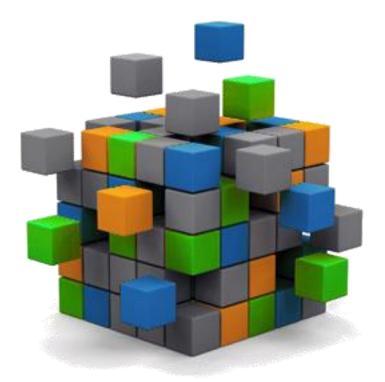
### 3.2 REASON FOR CHOOSING THIS PROJECT:

Nowadays our lives have become busy and so people don't write letters to the concerned authorities to fix their issues instead they ignore it so, most of the issues go unnoticed to the government.

So this project is selected to bring end to the problem waiting for so long in front of an office to inform your issues. To increase the communication between the government and the common people, to rectify all the minor issues faced by the people every day and to make our state a better place for living.

## 3.3 CONCLUSION:

Thus, this section summarizes the requirements for the project and the environment in which the project was done. It also deals with why this project was selected.



# MODULES

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## 4 ANDROID MODULES:

## 4.1 MODULE I: REGISTRATION:

#### 4.1.1 Introduction:

This module is used to register the user's details to the database through their Android smartphones. The details of the users is required to verify whether the user is valid person or a fake id. The details such as name, email, address, mobile no., state, district, town are got from the user while registration.

#### 4.1.2 Description:

Everyone who wishes to complaint to the government of the country should create an account at the Registration page. The registration form must be filled and the data is saved in the database with their valid email address and mobile number .The process of registration is carried out by the user and is being managed by the administrator. The user's details are hidden for the government officers. The password of the user is not even visible for the administrator, the password is being Hashed and Salted so that the password can be secured from the hackers and the hashed password is stored into database. All the details are added into the respective SQL database tables. The user's account is verified using the Simple Mail Transfer Protocol (SMTP). The SMTP is used to send and receive mails between the users and the Administrators. The user has to provide their mobile number while registration. The user receives a sms with a verification code which is used to register in the system.

#### 4.1.3 Algorithm:

- > Open the application
- Click on to create a new account or register or sign up option
- Enter the user details into the Registration page.
- Enter valid email address and mobile no.
- > The email address and mobile number is being verified.
- > The details are saved if the email address and mobile no. is verified.
- A new record is created in the database table.
- All the information is stored in the database

## □□□□□□**- SnaPort** – Take a snap & report the issue

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Fig. 4.1.a ANDROID SIGNUP SCREEN

## 4.1.4 Outcome of module I:

This module was executed and tested for errors. The validation was proved to be successful and has been verified and is complete.

## 4.2 MODULE II: SIGNING IN

#### 4.2.1 Introduction:

This module is used to Login to the database of this system. To login the user has to register in the sign up page. After registration, the user enters the email id and password in the sign in section. The email address and password entered by the person is validated in the database and is being logged in and the user can register his/her complaints.

#### 4.2.2 Description:

To login into the person needs his/her email address and password registered in the registration page. The email address and password entered by the person is validated in the database and is being logged into the dashboard according to their category. The Administrator has access to all the complaints but the government officers have access only to the complaints of their sector. "Forgot password" option is used to reset the password in case the user forget his/her password. While resetting the password. Users have to verify their identity by providing their email id or mobile number for verification.

#### 4.2.3 Algorithm:

- > Open the application
- Enter the registered username & password in the login page
- Click the submit button

## 

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#### Fig. 4.2.a ANDROID SIGN IN SCREEN





#### Fig. 4.2.b ANDROID CHANGE PASSWORD SCREEN

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## 4.3 MODULE III: COMPLAINTS:

#### 4.3.1 Introduction:

This module allows the user to file a complaint against something or can be used to give a note to the admin.

#### 4.3.2 Description:

This form will be viewed by the user when he/she presses the button "file a complaint". When the user clicks the button "file a complaint", the user will be redirected to the page where he can post a note to the admin. The form consist of some fields which should be filled to register the complaint. The form shows the complaint category which will be displayed in a drop down box and then fill the complaint details in the text box. If the users has some photos regarding the complaint, he can upload it so that the photo is uploaded to the database which can be viewed by the user.

The image which is uploaded by the user is not directly stored in the database, the image is uploaded using the FTP server. The image is stored in the database in binary type so that the size consumed by the image will be reduced to half, this makes the fetching of data from the table more efficient and faster. This also makes the size of the database small. The photo can be streamed by the user. The photo is streamed directly because it reduces the effort of the admin much and makes the photo accessible faster.

#### 4.3.3 Algorithm:

- ➢ Click "File a complaint".
- ➢ Fill all the necessary details.
- Click "submit"

# □□□□□□- **SnaPort** – Take a snap & report the issue

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Fig. 4.3.a ANDROID FILE A COMPLAINT SCREEN

# 5 iOS MODULES:

## 5.1 MODULE I: REGISTRATION:

#### 5.1.1 Introduction:

This module is used to register the user's details to the database through their Android smartphones. The details of the users is required to verify whether the user is valid person or a fake id. The details such as name, email, address, mobile no., state, district, town are got from the user while registration.

#### 5.1.2 Description:

Everyone who wishes to complaint to the government of the country should create an account at the Registration page. The registration form must be filled and the data is saved in the database with their valid email address and mobile number .The process of registration is carried out by the user and is being managed by the administrator. The user's details are hidden for the government officers. The password of the user is not even visible for the administrator, the password is being Hashed and Salted so that the password can be secured from the hackers and the hashed password is stored into database. All the details are added into the respective SQL database tables. The user's account is verified using the Simple Mail Transfer Protocol (SMTP). The SMTP is used to send and receive mails between the users and the Administrators. The user has to provide their mobile number while registration. The user receives a sms with a verification code which is used to register in the system.

#### 5.1.3 Algorithm:

- Open the application
- Click on to create a new account or register or sign up option
- Enter the user details into the Registration page.
- Enter valid email address and mobile no.
- > The email address and mobile number is being verified.
- > The details are saved if the email address and mobile no. is verified.
- A new record is created in the database table.
- All the information is stored in the database

## 5.2 MODULE II: SIGNING IN

#### 5.2.1 Introduction:

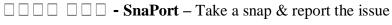
This module is used to Login to the database of this system. To login the user has to register in the sign up page. After registration, the user enters the email id and password in the sign in section. The email address and password entered by the person is validated in the database and is being logged in and the user can register his/her complaints.

#### 5.2.2 Description:

To login into the person needs his/her email address and password registered in the registration page. The email address and password entered by the person is validated in the database and is being logged into the dashboard according to their category. The Administrator has access to all the complaints but the government officers have access only to the complaints of their sector. "Forgot password" option is used to reset the password in case the user forget his/her password. While resetting the password. Users have to verify their identity by providing their email id or mobile number for verification.

#### 5.2.3 Algorithm:

- > Open the application
- Enter the registered username & password in the login page
- Click the submit button



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# Email

Enter your Email

# Password

Enter your Password



# Don't have an account? Sign Up!

Register with eComplaints to post your Complaints.

#### Fig. 5.2.a iOS LOGIN SCREEN

# **6 WEBSITE MODULES:**

## 6.1 MODULE I: REGISTRATION:

#### 6.1.1 Introduction:

This module is used to register the user's details to the database. The details of the users is required to verify whether the user is valid person or a fake id. The details such as name, email, address, mobile no., state, district, town are got from the user while registration.

#### 6.1.2 Description:

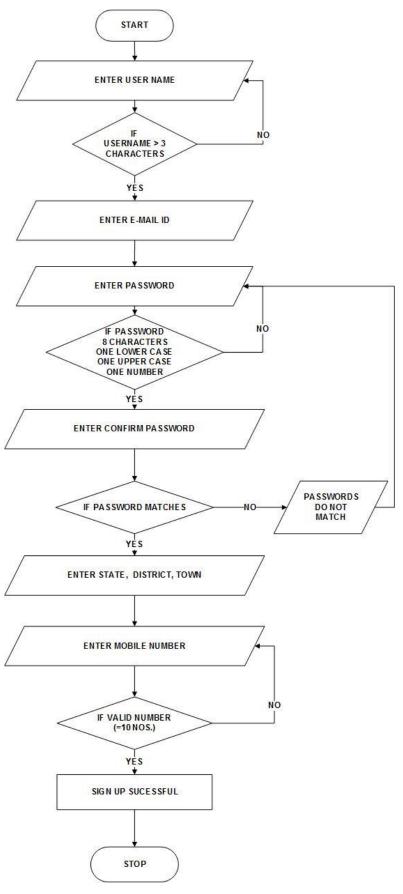
Everyone who wishes to complaint to the government of the country should create an account at the Registration page. The registration form must be filled and the data is saved in the database with their valid email address and mobile number .The process of registration is carried out by the user and is being managed by the administrator. The user's details are hidden for the government officers. The password of the user is not even visible for the administrator, the password is being Hashed and Salted so that the password can be secured from the hackers and the hashed password is stored into database. All the details are added into the respective SQL database tables. The user's account is verified using the Simple Mail Transfer Protocol (SMTP)

#### 6.1.3 Algorithm:

- ➢ Enter the web site.
- Click on to create a new account button
- > Enter the user details into the Registration page.
- Enter valid email address and mobile no.
- > The email address and mobile number is being verified.
- > The details are saved if the email address and mobile no. is verified.
- A new record is created in the database table.
- > All the information is stored in the database

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User Name	
Minimum three characters	
Email	
Password	
Password must have at least eight letter at least one number, one lower and one letter	20200-2020-2020-2020-20
Confirm Password	
State	
State Select State	
Select State	
Select State	
Select State   DistrictSelect District	
District	
Select State  DistrictSelect District Town	

Fig. 6.1.b SIGNUP PAGE

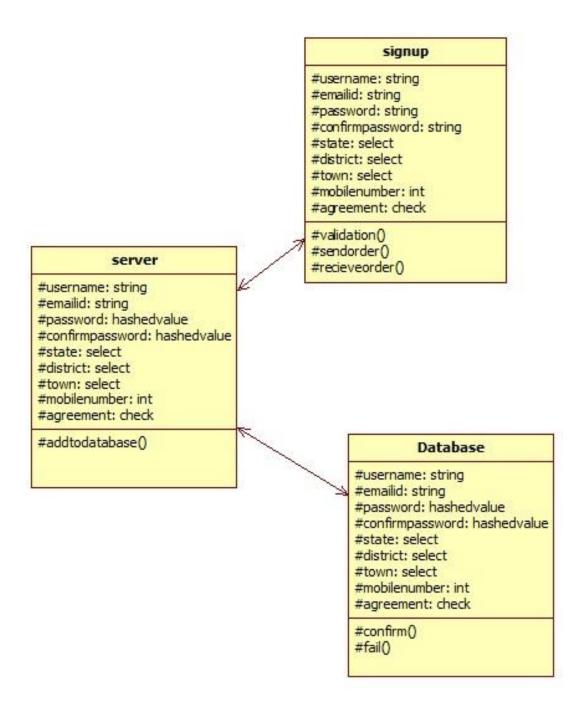


Fig. 6.1.c SIGNUP CLASS DIAGRAM

#### 6.1.4 Outcome of module I:

This module was executed and tested for errors. The validation was proved to be successful and has been verified and is complete.

## 6.2 MODULE II: SIGNING IN

#### 6.2.1 Introduction:

This module is used to Login to the web portal of this system. The login section is divided into three category. The categories are users, Government Officers and Administrator. To login into the categories the person needs his/her email address and password used in the registration page. The email address and password entered by the person is validated in the database and is being logged into the dashboard according to their category. "Forgot password" option is used to reset the password in case the user forget his/her password. While resetting the password. Users have to verify their identity by providing their email id or mobile number for verification.

#### 6.2.2 Description:

The login page is accessed by three category of persons who vary depending on their rights. To login into the categories the person needs his/her email address and password used in the registration page. The email address and password entered by the person is validated in the database and is being logged into the dashboard according to their category. The Administrator has access to all the complaints but the government officers have access only to the complaints of their sector.

#### 6.2.3 Algorithm:

- $\succ$  Enter the website
- > Enter the registered username & password in the login page
- Click the submit button

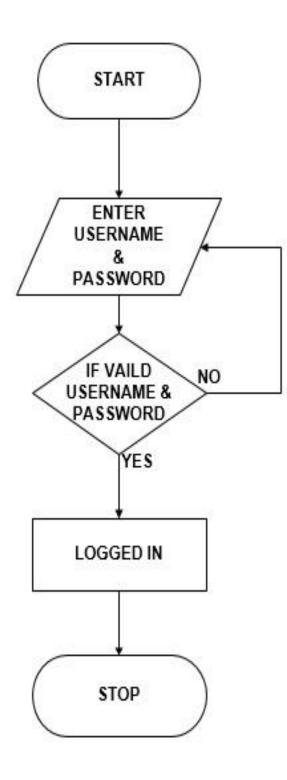


Fig. 6.2.a LOGIN FLOWCHART

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	<b>gin</b> e provide your details		
•	Username		
P	Password		
Ke	ep me signed in	submit	
Forgot	Forgot password?		

Fig. 6.2.b LOGIN PAGE

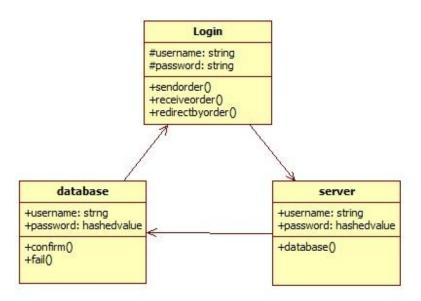


Fig. 6.2.c LOGIN CLASS DIAGRAM

#### 6.2.4 Outcome of module II:

This module was executed and tested for errors. It has been verified and completed.

### 6.3 MODULE III: USER DASHBOARD

This module is the form which is displayed after the user logs in. This module consist of all the information corresponding to the user who has logged in. This module allows the user to do different actions. This module has few sub modules in it,

- 1. Home
- 2. Profile
- 3. Complaints

#### 6.3.1 Home:

#### **6.3.1.1** Introduction:

This module is a form which will be visible to the user hence this form is the home form.

#### **6.3.1.2** Description:

The home form consist of many buttons which performs many actions. A dropdown box is in the user dashboard which has two options "logout" and "profile", when the profile is clicked the selection will make the url to redirect to the profile page. On clicking the logout the session of the user will be closed and the page will be logged out. Refresh button is also added in the form which is used to refresh the page. This page also has a button called "file a complaint". On clicking this button the user is actually redirected to a page which allows the user to post a complaint which can be viewed by the admin.

The page also has some tables which actually displays all the complaints which is posted by the user. The table has all the details like when the complaint was posted, what is the complaint, and also with the responses. Every complaints from the past till the future will be shown.

#### **6.3.1.3** Algorithm:

- $\triangleright$  Log in to the page.
- > Press the "file a complaint" button to file a complaint
- Press the "refresh" button to refresh
- Press the "logout" button to logout

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Fig. 6.3.a USER DASHBOARD HOME PAGE

#### 6.3.1.4 Outcome of module Home:

This module was executed and tested for errors. It has been verified and completed.

#### 6.3.2 Profile:

#### **6.3.2.1** Introduction:

This form is used by the user to update the profile. It is also used to view his/her own profile.

#### 6.3.2.2 Description:

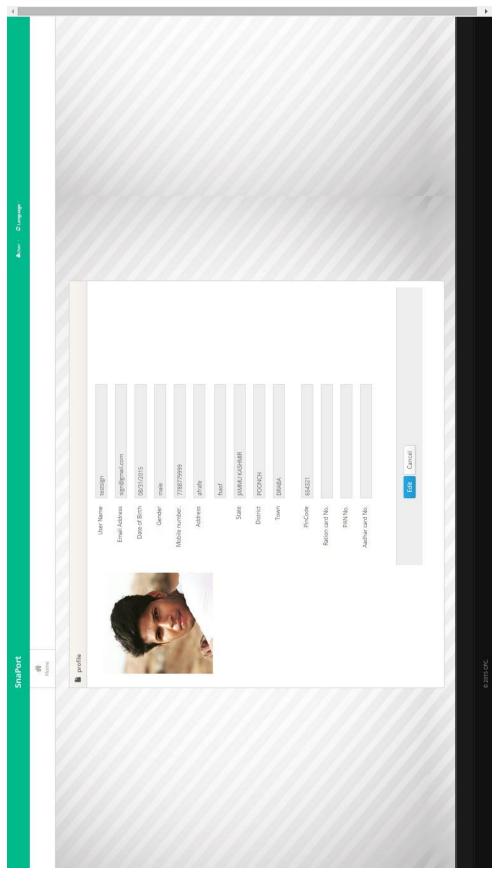
This form is loaded by using the session id which will be generated during the user's login. This form consist of all the details of the user which was entered by him/her during his registration. This form can be used as a source for the user to view his details to know what details are given by him. Updating the profile can also be done by the user. An "update" button is placed to update his profile. When the user presses the update button he is redirected to a page to update the details the user can update the required details and then press the "save" button to save his profile. The profile updated by the user will be saved to the database.

#### 6.3.2.3 Algorithm:

- Click on user.
- ➢ Select profile.
- View it or update the profile.
- Click save

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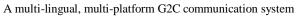


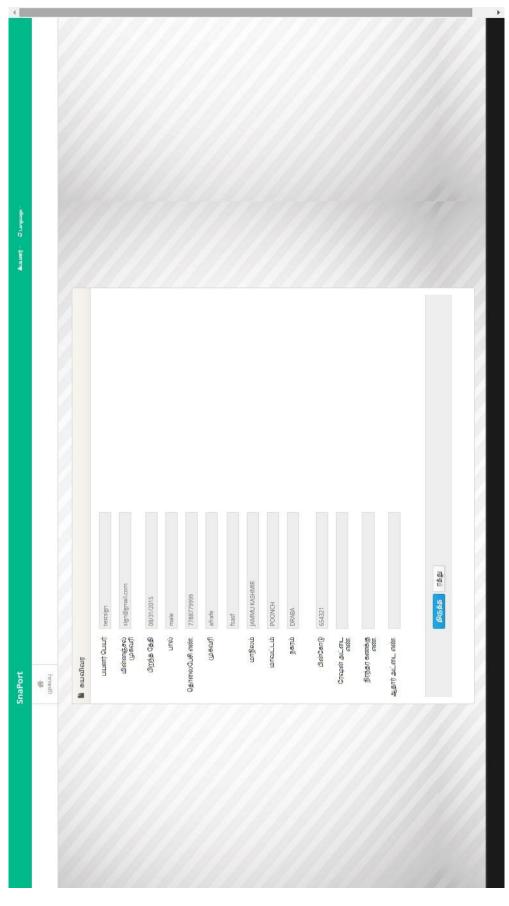
# $\square$ $\square$ $\square$ $\square$ $\square$ $\square$ $\square$ - SnaPort – Take a snap & report the issue

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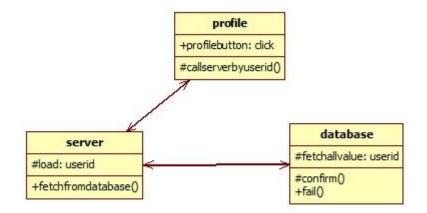
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## Fig. 6.3.c EDITED USER PROFILE

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#### Fig. 6.3.d CLASS DIAGRAM FOR USER PROFILE

#### **6.3.2.4** Outcome of module Profile:

This module was executed and tested for errors. It has been verified and completed.

#### 6.3.3 Complaints:

#### **6.3.3.1** Introduction:

This module allows the user to file a complaint against something or can be used to give a note to the admin.

#### 6.3.3.2 DESCRIPTION:

This form will be viewed by the user when he presses the button "file a complaint". When the user clicks the button "file a complaint", the user will be redirected to the page where he can post a note to the admin. The form consist of some fields which should be filled to register the complaint. The form shows the complaint category which will be displayed in a drop down box and then fill the complaint details in the text box. If the users has some photos regarding the complaint, he can upload it so that the photo is uploaded to the database which can be viewed by the user. The user is also allowed to select the priority which in future can be edited by the admins.

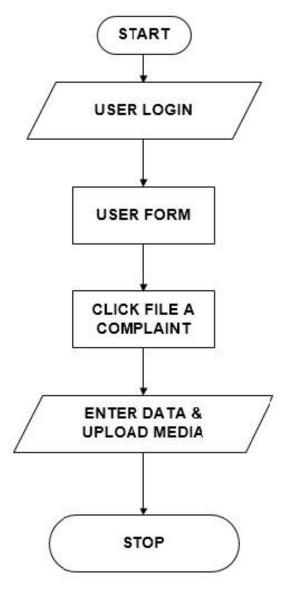
The image which is uploaded by the user is not directly stored in the database, the image is uploaded using the FTP server. The image is stored in the database in binary type so that the size consumed by the image will be reduced to half, this makes the fetching of data from the table more efficient and faster. This also makes the size of the database small. The photo can be streamed by the user. The photo is streamed directly because it reduces the effort of the admin much and makes the photo accessible faster.

#### **6.3.3.3** ALGORITHM:

- Click "File a complaint".
- ➢ Fill all the necessary details.
- Click "submit"

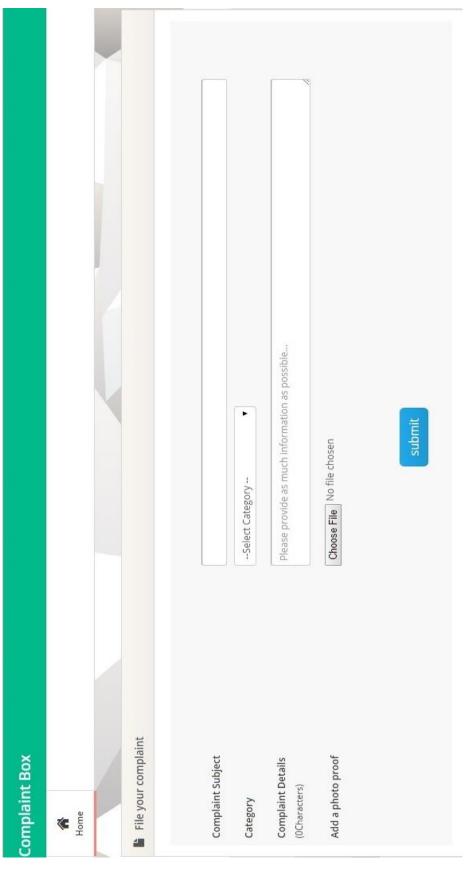
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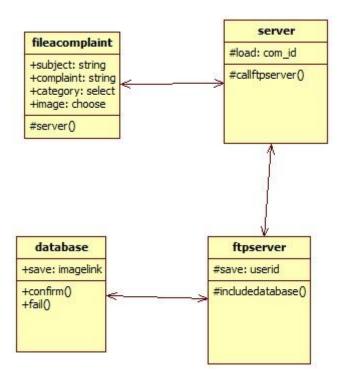


# $\square$ $\square$ $\square$ $\square$ $\square$ $\square$ $\square$ - SnaPort – Take a snap & report the issue

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Fig. 6.3.f

FILE COMPLAINT PAGE





### 6.3.3.4 Outcome of module Complaints:

This module was executed and tested for errors. It has been verified and completed.

### 6.4 MODULE IV: SUB ADMIN DASHBOARD

This module is the form which is displayed after the login activity of the secondary admin or the category admin. This module consist of all the information corresponding to the category admin who has logged in. This module allows the user to do many a type of actions. This module has many sub modules inside it. This secondary admin is

- 1. Home
- 2. Profile
- 3. Status Update

### 6.4.1 Home:

### **6.4.1.1** Introduction:

This module is a form which will be visible to the secondary admin after his login activity. Hence this form is the home form.

### **6.4.1.2** Description:

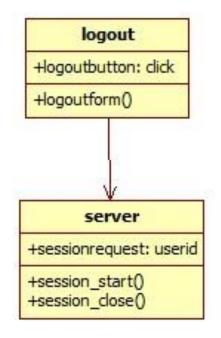
The home form consist of many buttons which does many actions. A dropdown box is in the dashboard which has two options "logout" and "profile". When the profile is clicked the selection will make the URL to redirect to the profile page. On clicking the logout the session of the user will be closed and the page will be logged out. Refresh button is also added in the form which is used to refresh the page.

The page also has some tables which actually displays all the complaints which is posted by the user. The table has all the details like when the complaint was posted, what is the complaint, and also with the responses. Every complaints from the past till the present will be shown. Each table has a view button which is used to view the complaint in that particular row in a detailed manner. This form also has two buttons which is used to respond to the problem.

The page has some links which shows the complaints which is seen, unseen, not responded, responded, and total complains. On clicking the ling the page will be redirected according to the corresponding header given.

### 6.4.1.3 Algorithm:

- $\blacktriangleright$  Login to the page.
- Seen shows the number of seen complaints
- Unseen shows the number of unseen complaints
- > Total complaints show the number of complaints recorded
- Responded shows the complains responded
- Progress shows the number of complain which is in progress





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Fig. 6.4.b SUB ADMIN DASHBOARD

### 6.4.2 Profile:

### **6.4.2.1** Introduction:

This form is used by the admin to update their profile. It is also used to view his/her own profile.

### 6.4.2.2 Description:

The form is loaded by using the session id which will be generated during the user's login. This form consist of all the details of the user which was entered by him during his registration. This form can be used as a source for the user to view his details to know what details are given by him. Updating the profile can also be done by the user. An "update" button is placed to update his profile, when the user presses the update button he is redirected to a page to update the details the user can update the required details and then press the "save" button to save his profile. The profile updated by the user will be save to the database.

### 6.4.2.3 Algorithm:

- Click on user.
- ➢ Select profile.
- ➢ View it or update the profile.
- Click save

### 6.4.2.4 Outcome of module Profile:

This module was executed and tested for errors. It has been verified and completed.

### □□□□□□ **SnaPort** – Take a snap & report the issue

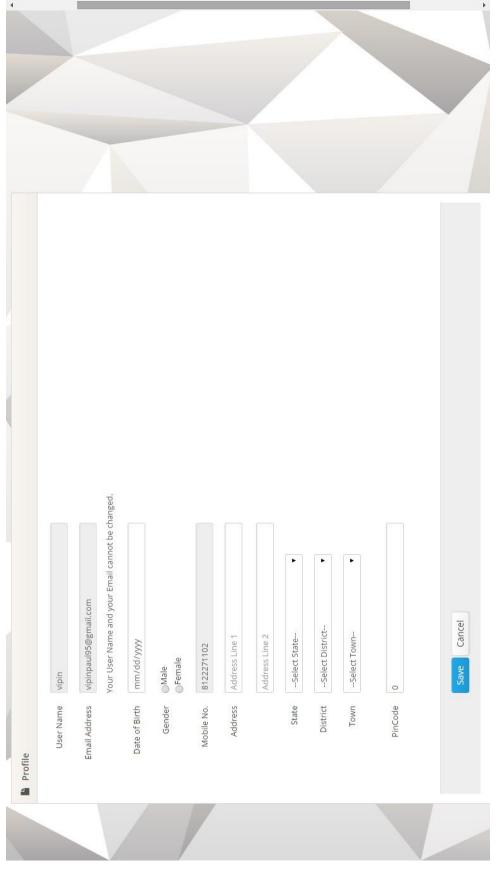


Fig. 6.4.c SUB ADMIN PROFILE

### 6.4.3 Status update:

### **6.4.3.1** Introduction:

This is used to send message to the user by the category admin. Message can be sent to the user regarding their complaints and the actions taken.

### 6.4.3.2 Description:

The module is used as a communication between the user and the category admin. The admin can send both manual and auto generated messages to the user. The admin can select the option regarding how busy he is. If the user has no time, we have given some auto generated statements which will be sent to the users on just checking the check box and click on send. Manual message can also be sent to the user. The admin has to type the message in the text box and click on send to send the message.

### 6.4.3.3 Algorithm:

- Select on respond
- Check the appropriate box
- Or manually type a message
- Press send

Update the c	omplaint status	
	<ul> <li>Status:Action In Progress</li> <li>Status:Action Completed</li> </ul>	
	Your message	
Message		
	Close submit	

### Fig. 6.4.dSTATUS UPDATE PAGE

### 6.4.3.4 Outcome of module IV:

This module was executed and tested for errors. It has been verified and completed

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### 6.5 MODULE V: MAIN ADMIN DASHBOARD

### 6.5.1 Introduction:

This is the form which will be loaded to the main admin when he logins. This form manages every user and the secondary admin.

### 6.5.2 Description:

The admin handles this page completely, the dashboard deals every details stored in the database. this allows the admin to update, edit, delete, change, create, delete, activate, deactivate, everything found in the database. The admin dashboard has the statistics of the users who has joined the site. On clicking the link it opens a separate page which shows the user info page with number of users and their details. The page also displays the statistics of the secondary admin which on clicking the link displays the admin info page which displays the number of secondary admin.

The user info page displays all the users in a table form. This form also has some additional features which enables the admin to promote the user as a secondary admin. The admin can also deactivate the users account, activate the user's account, and permanently delete the users account. The admin can also search for the user by the user's name. The admin can list the users from a particular locality. The admin has to enter the locality from where he has to see the users and the press on search button. The users on the particular locality will be viewed.

The admin category info page displays all the admin who has been promoted or all the secondary admin. The main admin can make any secondary admin deactivate or active or delete his account permanently. He can search admin by their name and also by the locality.

The next page is the complaint info page which can be viewed by the admin. Here the admin can view every single complaints recorded in the database. He can also view the database category wise. Splitting of the complaints Category wise complaints makes the admin feel comfortable on viewing the complaints. The admin can see the statistics of total number of complaints, seen complaints, unseen complaints, responded complaints, actions in progress.

The admin has given rights to directly question each secondary admin for actions they have done.

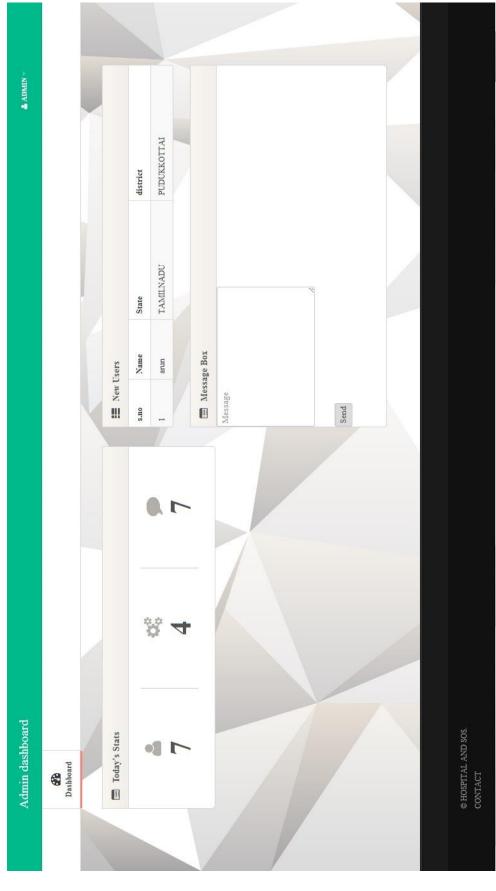
### 6.5.3 Algorithm:

- ➢ Login
- ➢ Select user
- ➢ Update user as admin
- Deactivate, activate, delete a user's account
- Search a user by name or his locality
- ➢ Select admin
- > Deactivate, activate, delete a secondary admin
- Search a secondary admin by name or his locality
- Select complaints
- View the statistics of complains
- ➢ View all the complaints
- Direct message
- $\blacktriangleright$  Question a admin

### 6.5.4 Outcome of module V:

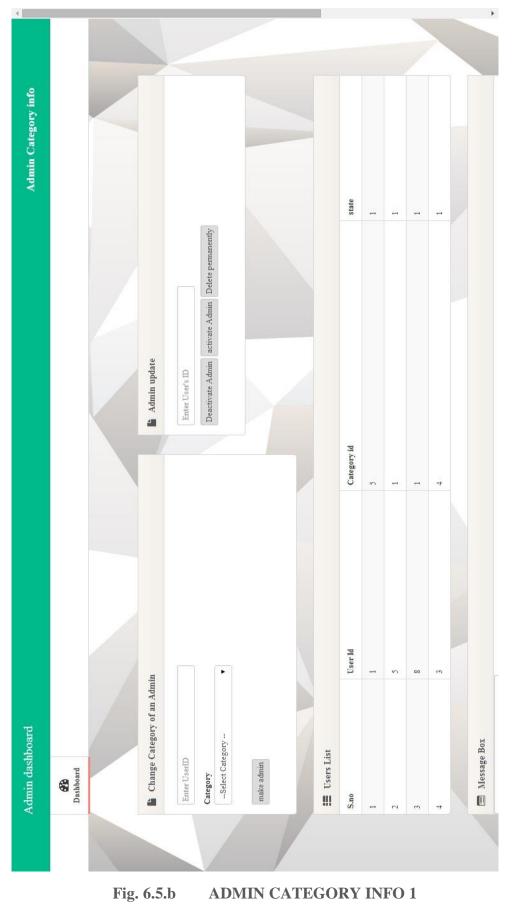
This module was executed and tested for errors. It has been verified and completed.

### $\square$ $\square$ $\square$ $\square$ $\square$ $\square$ $\square$ - SnaPort – Take a snap & report the issue

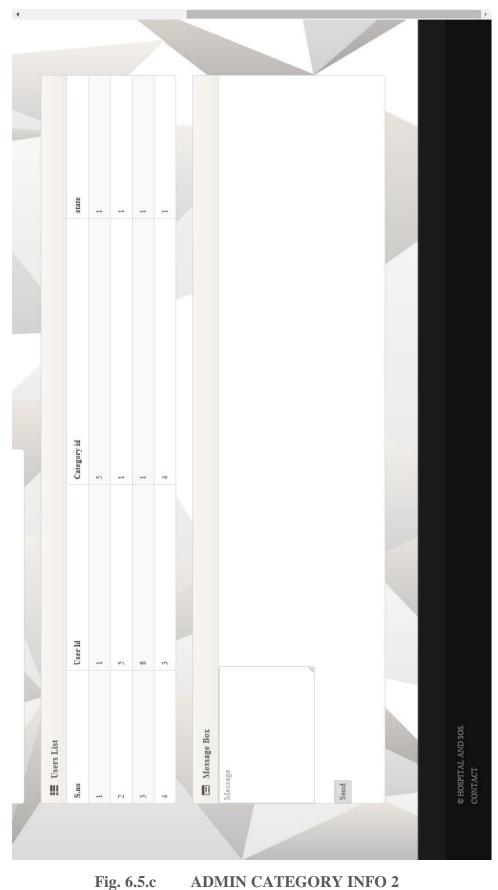




### $\square$ $\square$ $\square$ $\square$ $\square$ $\square$ - **SnaPort** - Take a snap & report the issue

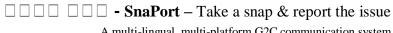


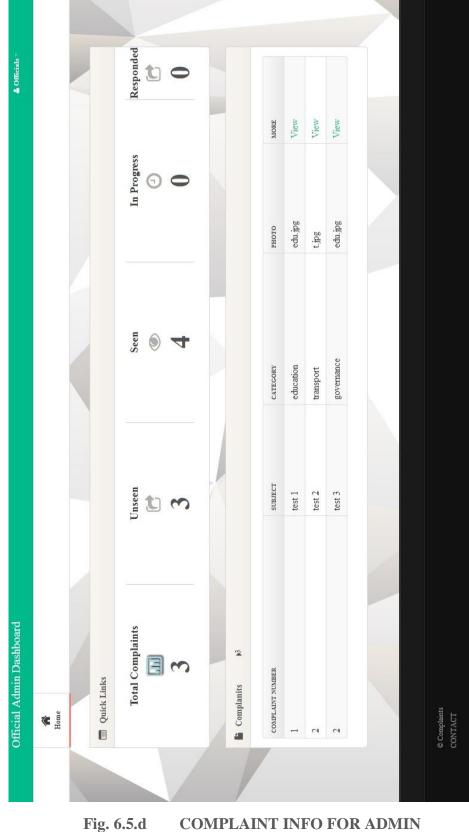
### $\square$ $\square$ $\square$ $\square$ $\square$ $\square$ - **SnaPort** - Take a snap & report the issue





4





### $\square$ $\square$ $\square$ $\square$ $\square$ $\square$ $\square$ - SnaPort – Take a snap & report the issue

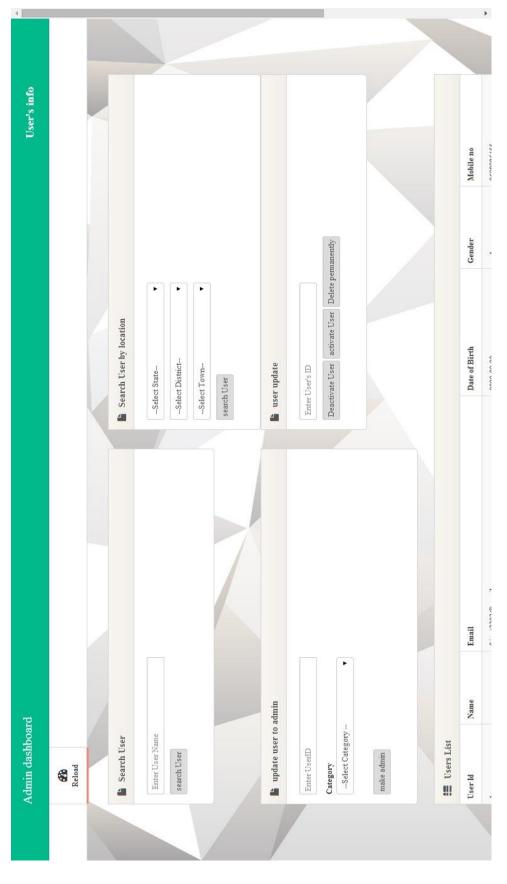


Fig. 6.5.e USER INFO FOR ADMIN

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### 6.6 DATABASE SCHEMA:

Column Name	Datatype	PK	NN	UQ	BIN	UN	ZF	AI	Default
adminid	INT(11)	~	-						
types	VARCHAR(45)		-						
userid	INT(11)	~	-						
createdon	TIMESTAMP		-						CURRENT_TIMESTAMP
createdby	INT(11)		-						
active	INT(11)		-						

### Fig. 6.6.a

**ADMIN TABLE** 

Column Name	Datatype	PK	NN	UQ	BIN	UN	ZF	AI	Default
categoryid	INT(11)	-	-						
category	VARCHAR(45)	6	-						
active	INT(11)		-						

### Fig. 6.6.b CATEGORY TABLE

Column Name	Datatype	PK	NN	UQ	BIN	UN	ZF	AI	Default
complaint_id	INT(11)	~	-						
userid	INT(11)		-						
subject	VARCHAR(45)		-						
details	VARCHAR(500)		-						
createdon	TIMESTAMP		-						CURRENT_TIMESTAMP
categoryid	VARCHAR(45)		-						
tags	VARCHAR(45)		-						
location	VARCHAR(45)		-						
latitude	VARCHAR(45)		-						
longtitude	VARCHAR(45)		-						
ip	VARCHAR(45)		-						
stateid	INT(11)		-		$\square$		$\square$		

Fig. 6.6.c

**COMPLAINT TABLE** 

### $\square$ $\square$ $\square$ $\square$ $\square$ $\square$ - **SnaPort** - Take a snap & report the issue

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Column Name	Datatype	PK	NN	UQ	BIN	UN	ZF	AI	Default
head	VARCHAR(20)	-	-						
idcol	INT(11)		-						
detail1	VARCHAR(50)		-						
detail2	VARCHAR(50)		-						
detail3	VARCHAR(50)		-						
detail4	VARCHAR(50)		-						

### Fig. 6.6.d MISC DATA TABLE

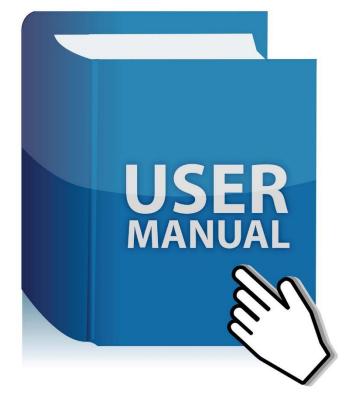
Column Name	Datatype	PK	NN	UQ	BIN	UN	ZF	AI	Default
userid	INT(11)	~	-						
cname	VARCHAR(45)		~						
email	VARCHAR(45)	~	~						
password	VARCHAR(45)		-						
dob	DATE		~						
gender	VARCHAR(4)		-						
mobile	VARCHAR(10)		-						
stateid	INT(11)		-						
districtid	INT(11)		-						
townid	INT(11)		~						
pincode	VARCHAR(45)		-						
createdon	TIMESTAMP		~						CURRENT TIMESTAMP

Fig. 6.6.e

### **REGISTRATION DETAILS TABLE**

Column Name	Datatype	PK	NN	UQ	BIN	UN	ZF	AI	Default
uploadid	INT(11)	-	-						
referenceid	INT(11)		-						
referencetype	VARCHAR(45)		-						
remotefile	VARCHAR(45)		-						
localfile	VARCHAR(45)		-						
createdby	VARCHAR(45)		-						
createdon	TIMESTAMP		-						CURRENT_TIMESTAMP
active	INT(11)		-						





## **USER MANUAL**

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### 7 USER MANUAL:

### 7.1 PRIMARY SERVER ADMINISTRATORS:

Maintain a database of users who have registered. If a user requests for registering their information with the system, have them fill up the Registration Forms. Update the database with the details.

Log on to the Administrator page. The Numerical count of Users registered and the total number Secondary administrator for the system will be displayed. The complaints which are made by the users are also displayed in a table by clicking on the link there the admin can view and respond to the user.

### 7.1.1 Managing users:

By clicking on the user icon the Administrator can look on to the list of all the users who have registered to the system. By providing the Name or Location to the search bar, the admin has the authority to promote, disable, enable or permanently delete the users account. Promoting a user will make him a secondary admin. Disabling an account will ban the user's account temporarily; it can be enabled later if needed and deleting an account will ban the user permanently from using the system.

### 7.1.2 Managing secondary administrators:

By clicking on the secondary administrator icon the administrator can look on to the list of all other secondary administrators. By providing The Name or location to the search bar, the admin has the authority to demote, disable or delete the administrator's account from the system.

### 7.1.3 Managing the complaints:

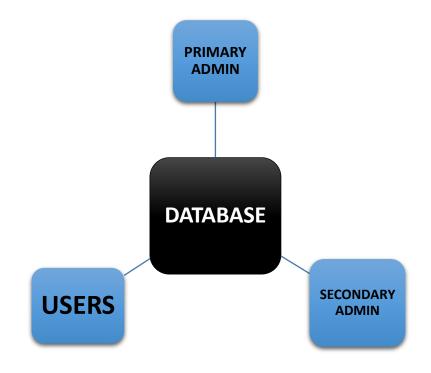
By clicking on the complaints inside the complaints list the admin can see the more detailed form of that particular complaint. And he could able to response or dismiss that complaint

### 7.2 SECONDARY SERVER ADMINISTRATOR:

The secondary admin will have to login to the system by providing the correct email and password. After logging in the secondary admin will assess the list of complaints that are listed in the homepage. And by clicking on the complaints inside the complaints list the admin can see the more detailed form of that particular complaint. And he could able to response or dismiss that complaint.

### 7.3 USER:

The User will have to register to the system first, before logging into it and should login to assess his/her pervious complaints. And can track on to the status of that issue being fulfilled



### 7.4 INSTALLATION OF THE SYSTEM:

This System is available in various platforms like Android, IOS and In Webpages using this system in web pages doesn't require any installation.

### 7.4.1 Android:

Download the apk file of the SnaPort application, store it in your android device and install it. After it is installed, login to the system and start using it or it can be directly installed through Google play

### 7.4.2 iOS:

The SnaPort application available apple app store, one can directly install it from the app store.

### 7.5 INSTALLATION OF SERVER:

### 7.5.1 Software needed:

- ➢ MySQL server
- MySQL connector
- > MySQL workbench
- ➤ Wamp server
- ➢ Php storm 8.0.1

### 7.5.2 Database installation:

- Install MySQL server
- install MySQL workbench
- Now connect the MySQL workbench with MySQL server
- ➤ Install MySQL connector to connect the both
- > After connecting the server, open the database
- Import all the csv sheets to the database
- Store the csv files in the database by clicking on apply
- ➢ Now the database is ready

### 7.5.3 Software installation:

- ▶ Install Php storm 8.0.1
- ➢ Load all the codes from the source
- ➢ Now the Php storm is ready

### 7.5.4 Setting up the interpreter:

- Load all the codes to the Php storm
- After loading all the pages
- Go to file
- > Select settings
- ➢ Select Php
- > Select on interpreter
- Click browse
- Select c:/wamp/bin/php/php 5.5.12
- Select it and press apply
- Press ok
- > Now the interpreter is loaded

### 7.5.5 Working:

After all the above things are done .now one who has the code and the database, and can do any changes in the code as they wish. After the interpreter is done the codes can be loaded from the source and can be modified .it can be rebuilt or edited as per their need.



# CONCLUSION

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### 8 **CONCLUSION & FUTURE ENHANCEMENTS:**

This system will be a successful one if it's implemented all over the state. By using this system the government can monitor complaints all over the state from their office instead of accepting complaints through letters which go unanswered.

In future we have planned the complaints to be directly sent to the official's mobile as an SMS, So that he can fix it sooner. We are also developing this application in Windows and Blackberry platforms so that every smartphone user will have access to this system.





# DEVELOPERS

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### 9 **DEVELOPERS:**



NAME: PRAVEEN M DEPARTMENT: COMPUTER SCIENCE AND ENGINEERING YEAR: THIRD



NAME: SANJU ABEL J DEPARTMENT: COMPUTER SCIENCE AND ENGINEERING YEAR: THIRD



NAME:

VIPIN PAUL

**DEPARTMENT:** 

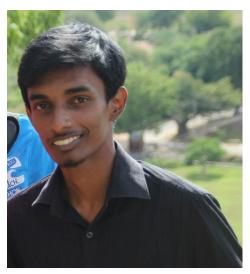
COMPUTER SCIENCE AND ENGINEERING

### YEAR:

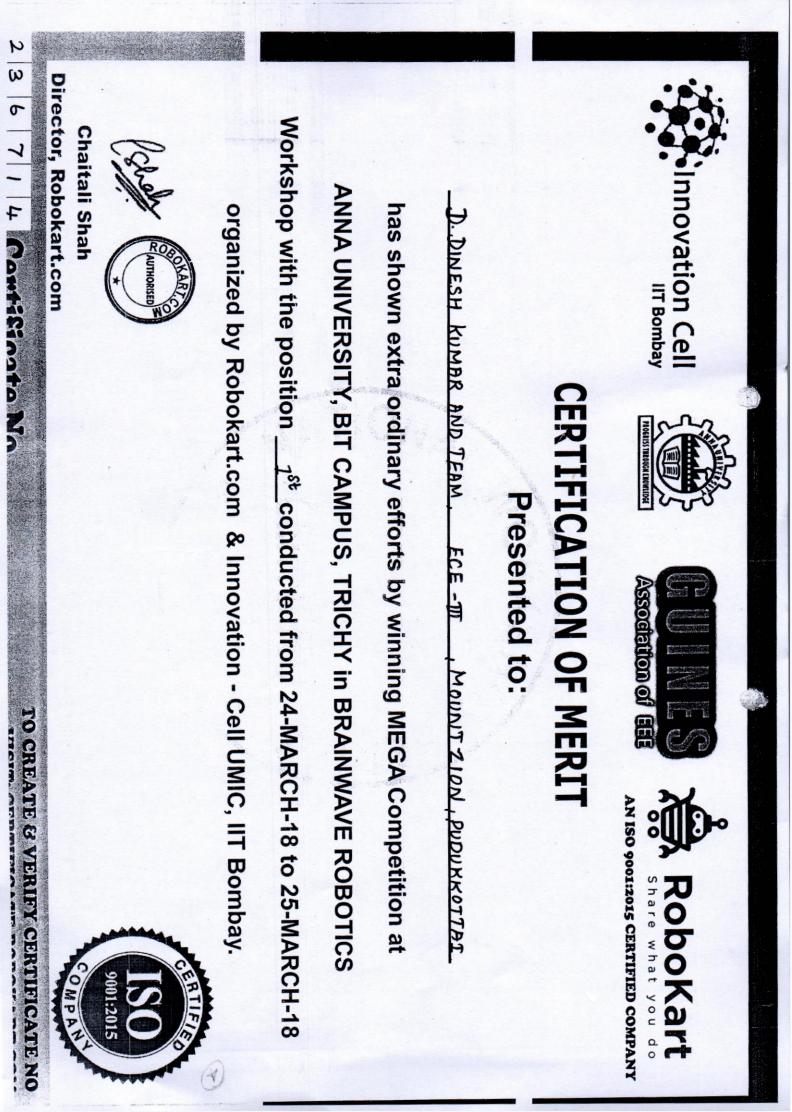
THIRD

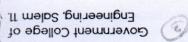


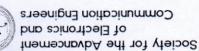
NAME: SAMRAJAN M DEPARTMENT: MECHANICAL ENGINEERING YEAR: FOURTH

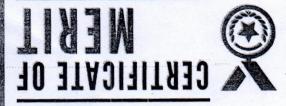


NAME: ALDRIN B DEPARTMENT: COMPUTER SCIENCE AND ENGINEERING YEAR: SECOND









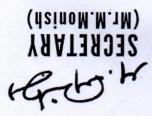
(Or.G.Vimala Rosaline)

PRINCIPAL

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ELECTRONICS AND COMMUNICATION DEPARTMENT OF

(idtns2.M.1d) 303 / OOH





Dean	This is to certify that Mr./Ms. <u>MULTIPURPOSE ROBOT (F</u> <u>INNOVAUT'18</u> Forum, Tiruchirappalli at Anna U		PROGRESS THROUGH KNOWLEDGE
MANAM Coordinator TNSF Secretary	This is to certify that Mr./Ms. <u>DINESHKUMAR P</u> has presented the <u>MULTIPURPOSE ROBOT LEXPOJ</u> and has won first/second prize in the <u>INNOVAUT'18</u> conducted by MANAM in association with Tamilnadu Science Forum, Tiruchirappalli at Anna University - BIT Campus on 24/02/2018	Bertificate of Excellence INNOVAUT 18	UNIVERSITY COLLEGE OF ENGINEERING ANNA INVERSITY - BIT CAMPUS TIRUCHHRAPALLI - 620 024



DEPA TIMENT OF E ECTRONICS AND COMMUNICATION ENGINEERING PONDIC HERRY ENGINEERING COLLEGE Puducherry- 605 014



# ENC INFO 2K18- CYBORG EDITION NATIONAL LEVEL TECHNICAL SYMPOSIUM

# CERTIFICATE OF MERIT

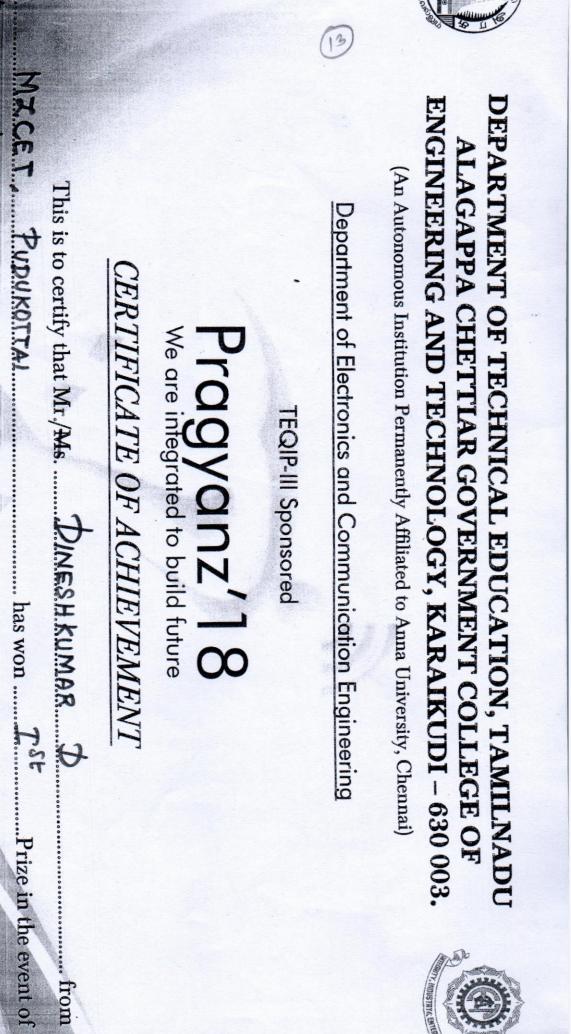
EDITION on 15<sup>th</sup> & 16<sup>th</sup> February ,2018 and secured participated in the National Level Technical Symposium ENC INFO 2K18- CYBORG HROTECT COMPETITION MOUNT KION COLLEGE OF ENGINEERING AND TECHNOLOGY This is to certify that Mr/Ms. \_\_\_\_\_DINESHKUMAR . D \_ event. H place in has 0

Dr. V. VIJAYALAKSHMI Convenor ENC INFO 2K18

Dr. M. TAMILARASI Head, Dept. of ECE



ALL STREET



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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING (Approved by AIC I E, New Delhi & Attiliated to Anna University) AMARAVATHIPUDUR KARAIKUDI, SIVAGANGAI DIST - 630 301

Proudly Prents

# A National Level Technical Symposium ALCHEM ST 18

Certificate of Merit

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bound New and goud in the event and won ..... First .......... prize in the National Lev Technical Symposium held at Department of ELECTRONICS AND COMMUNICATION Engineering,

Sri Raaja Raajan College of Engineering & Technology, Amaravathipudur, Karaikudi, Tamil Nadu

Colvenor Prof. N.Balaji on 7<sup>th</sup> September 2018.

X930 Principal

Dr. X. Hyacinth Suganthi

of ... MAUNT. ZIAN. LALLEGE. DE .. ANGWEERING. E. TECHNALDGY. Organised by SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN has participated I secured ...... Unice in the event(s) of Paper presentation I Potpouri I Connextion / Circuitrix in the National Level Technical Symposium TECHWINGS" 18 Kaikkurichi, Pudukkottai - 622303 on 17th March 2018 CONVENOR This is to certify that Mr No. ......B. NANNY 20...... TE ENGINEERING COLLEGE FOR WOMEN Approved by AICTE New Delhi & Affiliated to Anna University, Chennai National Level Technical Symposium TECHWINGS"18 Kaikkurichi, Pudukkottai - 622303 DEPARTMENT OF EEE & ECE Certificate PRINCIPAL < CHAIRMAN NUX 

