



# GOVERNMENT OF TELANGANA

**Presentation  
by  
Pendyala Srinivas  
Telangana Secretariat**

**ITE&C DEPARTMENT  
GOVERNMENT OF TELANGANA  
JULY 2022**



**Delivery of services timely to the  
People in the State of Telangana**

**Leveraging with m-Governance**

**by use of Emerging Technologies  
such as Cloud, AI, ML, DL, Drones,  
Block Chain etc., in Transformation**



**ITE&C DEPARTMENT**

**GOVERNMENT OF TELANGANA**

**JULY 2022**



# **Crowd Monitoring and Management Application using AI**



## **Problem:**

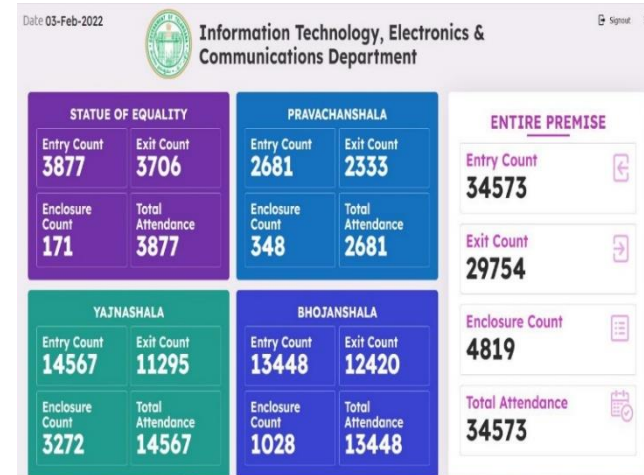
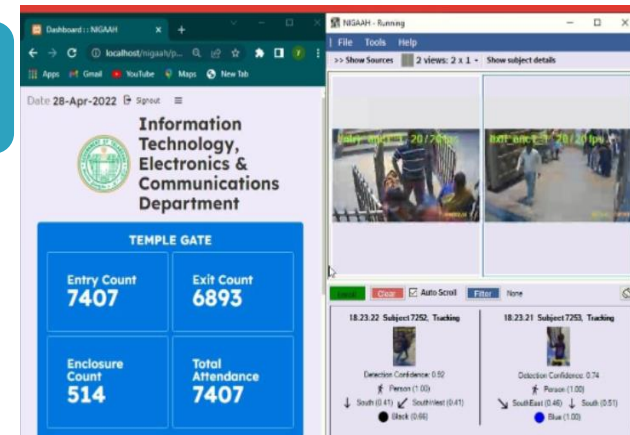
- **Monitor crowd in sensitive areas during festivals or public gathering and any other mass gathering activities to alert concerned force to take appropriate decisions.**
- **Avoid overcrowding/ Stampedes in estimated area and divert traffic accordingly**
- **Coordinating with other departments to make necessary arrangements (like Municipal, police, transport, Traffic, water works, R&B Health, Fire..etc.)**





# Solution:

- This application is designed to use real time camera feed and provides the dynamic analytics with dashboard.
- Based on camera's feed It's covers entire premises or specific locations/areas.
- Home Department is requested to facilitate Crowded management application in Chinna Jeeyar Ashram during Prime minister and president visit and after extended to Yadadri Temple.
- Application is compatible to use with Criminal database.
- Able to capture Head count, Facial recognition and full body capture.





9:34



### Telangana CMO's post

• The CM inspected the Command Control Centre set up by the Police Department for security during the arrival of President and Prime Minister. Cyberabad CP Stephen Ravindra asked about the security arrangements.





Date 05-Feb-2022



# Information Technology, Electronics & Communications Department

### STATUE OF EQUALITY

Entry Count <b>1288</b>	Exit Count <b>998</b>
Enclosure Count <b>290</b>	Total Attendance <b>1288</b>

### PRAVACHANSHALA

Entry Count <b>1522</b>	Exit Count <b>642</b>
Enclosure Count <b>880</b>	Total Attendance <b>1522</b>

### BHOJANASHALA

Entry Count <b>4224</b>	Exit Count <b>2972</b>
Enclosure Count <b>1252</b>	Total Attendance <b>4224</b>

### YAJNASHALA

Entry Count <b>11491</b>	Exit Count <b>5796</b>
Enclosure Count <b>5695</b>	Total Attendance <b>11491</b>

### ENTIRE PREMISE

Entry Count <b>18525</b>
Exit Count <b>10408</b>
Enclosure Count <b>8117</b>
Total Attendance <b>18525</b>





# **Accident Prevention system using AI & ML**

## **Problem:**

- Driving vehicles long distances is very tiring and challenging job, which needs constant alertness and attention.
- However, in certain times due to tiredness and long hours driver may lose concentration and fall asleep/feel drowsy.
- The same may lead to avoidable fatal accidents, in majority of accidents loss of precious lives and material/assets.
- for this there is no alert system available to avoid accidents.



## **Solution:**

- **The Artificial Intelligence based Accident Prevention system is developed as a portable and rugged device,**
- **which can be fitted in the driver compartment with a cameras capturing the face of driver instantly.**
- **The AI software device in real-time monitors the facial expressions of the driver and detects in case the driver is drowsy, closing eyes or yawning.**



## **SOLUTION:**

- the transmitter system will sound an alarm in the cabin in form of a buzzer to warn the driver and co-driver besides sending an alert to the concerned management.
- Solution successfully implemented in Transport department and mostly using in long distance and nighttime travel busses.
- Solution implemented in around 20+ busses



**AI / ML / DL / Big Data**

**MEESEVA 2.0**

**ELECTRONIC SERVICES  
DELIVERY(ESD)**

**Citizen Centric Services**



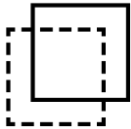
# Utopian Objective of Governance

## Well known definition of Democracy

*“Democracy is the government of the people, by the people, for the people”*  
- Abraham Lincoln

### Twin objectives

1



Transparent Service Delivery

2



Citizen convenience as central theme without compromising accuracy

### Role Model








Estonia

*(A European Country)*






- Through X Road platform
- Only for 3 services relating to marriage and purchase of immovable property, Citizens visit Government Office.
- All other services are in presence less and contact less manner through smartphone/PC.
- GOI send senior officers to Estonia regularly to study.

# Issues faced in Citizen service delivery currently

## Where we are

-  **Physical Presence**
-  **Jurisdiction Specific Office**
-  **Contact with Bureaucracy. Discretion**
-  **Filling of paper forms**
-  **During office hours**

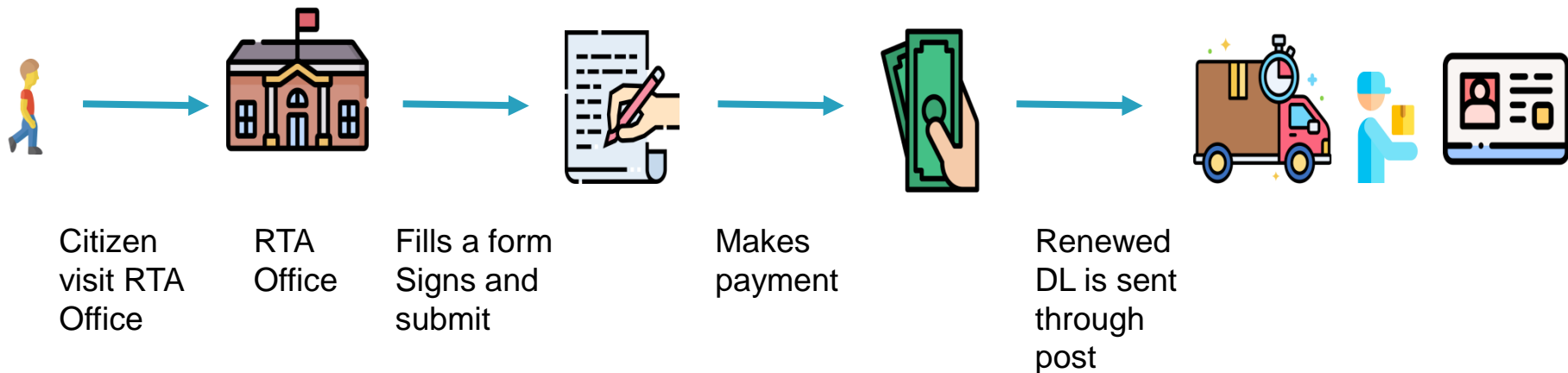
## Where we want to be

-  **Presence less**
-  **Jurisdiction free**
-  **Contact less. No discretion**
-  **Paperless**
-  **Anytime (24\*7\*365)**

# Transport Department of Telangana offers 55 services

**Across 4 categories (Driving License, Learning License, Permit & Registration Services)**

## Current process of DL renewal/Duplicate DL/Change of address



## Issues in the existing process

- 1** → ✖ **Transparency issues**
- 2** → 🕒 👤 👤 👤 ➔ **Rush at Transport Office**
- 3** → 🕒 🖨️ **Available during working days**
- 4** → 🤝 + **Not much value addition by the department**

# Annual Life Certificate By Government Pensioners and Registration for Degree college admissions



## Three existing methods for obtaining Annual Life Certificate

Sub Treasury Office where retired



Bank of the pensioner



Meeseva centre through Aadhar based bio metric authentication



## Admission to degree colleges through DOST portal – Process Flow



Registration using Aadhaar. Aadhar number is available in Intermediate

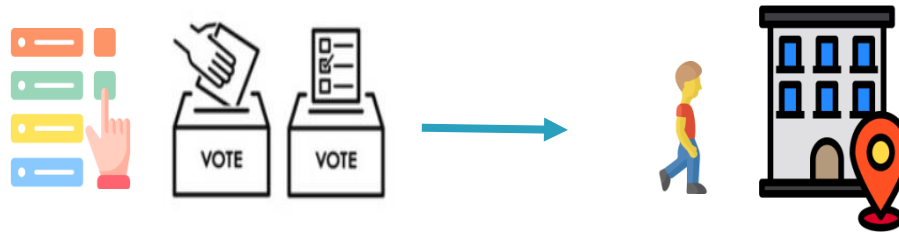


Student has to visit any Mee Seva centre and do Aadhaar authentication along with Intermediate Hall Ticket number

Or

Can do online OTP authentication of Aadhar


# Voting Related questions

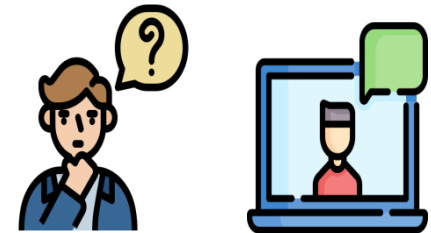


Voting process

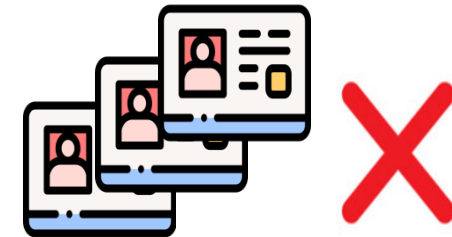
Physical presence required

## Three questions?

Whether voting in general elections can be done remotely through a smart phone. Estonia  has achieved this.



Is One citizen one Voter Card without duplicates possible?



Can identification during the voting at a polling booth be done by a system instead of manual process?



# ITE&C department explored and found an alternative

IT&EC department, Telangana Govt. started exploring in 2019 alternative to the 3 manual checks using latest emerging technologies



## Technologies used

1

Artificial Intelligence

2

Machine Learning

3

Deep Learning

4

Big data



## Idea

An intelligent IT application which can perform the three checks using smart phones at the same efficiency

## Solution arrived

Real-time Digital Authentication of Identity, RTDAI, was developed.

RTDAI provides an easy, convenient and correct authentication of citizens' identity through a smartphone

Ushering in the **utopian objective of Governance** through presence less, contact less, paper less services to the citizens anytime and anywhere.



# A new 3-factor authentication system is designed



User's Live Photograph

Captured Photograph

Captured Demographic Info



Input Name  
Pensioner's ID (PPOID)  
Registered Bank A/c No.

Image form fetched from data base

Name from Database

1

2

3



AI based Liveness Check

Deep learning based Image Comparison

ML based Demographic Comparison

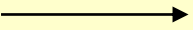
1



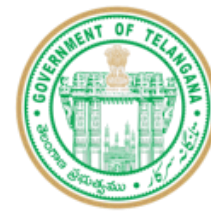
2



3



3 Factor authentication is treated as digital authentication



***Where these solutions can be used?***





## Passport Services

*100000+ (Average) applications processed by Ministry of External Affairs, GOI in a week*

### Main Services requiring physical presence

a



Renewal

b



Change of Address

c



Additional Booklet

# Use at Transport Departments in all states



**State Transport Dept.**

*Many services can be rolled out*

**Services requiring physical presence**

**a**



**Renewal of license**

**b**



**Issuance of license**

**c**



**Permit Services**



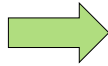
**Govt. of India and States**

- More than 1 Crore pensioners of central & state Governments Government including defense, railways can benefit

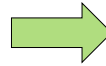
## New Process



**Pensioner enters Pension Id and Name in Mobile App**



**Pensioner clicks and uploads selfie**



**3 factor authentication is done**



**Pensioner life certificate is issued on mobile upon successful verification**



## UIDAI

- ***Aadhaar authentication is being used as the primary identity verification mechanism by various entities such as Banks, Telecom companies, PDS, Income Tax etc.***
- ***Two factor authentication Bio metric ( Finger Print/Iris) or OTP***
- **RTDAI can be used for an alternate three factor authentication without bio metrics**

**Demographic+ Liveness+ Facial Authentication**





's Techade  
INDIA  
WEEK 2022



Catalyzing New India's Techade  
**DIGITAL INDIA**  
WEEK 2022

# Digital Government and Emerging Technologies

July 6, 2022 | Gandhinagar, Gujarat

Digital Government : Presentations on Impactful and Scalable Projects by States





सत्यमेव जयते

प्रशासनिक सुधार और लोक शिकायत विभाग  
भारत सरकार

द्वारा

सार्वजनिक क्षेत्र के उपक्रमों से इतर सरकारी विभाग की विद्यमान परियोजना में  
नवाचारों के लिए

राष्ट्रीय ई-गवर्नेंस पुरस्कार, 2017-18

(रजत)

आईटीईएंडसी विभाग, तेलंगाना सरकार  
के

मीसेवा 2.0

के लिए

श्री श्रीनिवास पेंडयाला

को प्रदान किया जाता है

**Department of Administrative Reforms & Public Grievances  
Government of India**

is pleased to present

**National Award for e-Governance, 2017-18  
(Silver)**

to

**Shri Srinivas Pendayala**

for


**Meeseva 2.0**

of

**Department of ITE&C, Government of Telangana**

for

**Innovations in Existing Project of Government Departments other than  
PSUs**



के. वी. इपेन/ K. V. Eapen  
सचिव/ Secretary



## **e-Gov - Projects which can be replicated across States**

**Secretary, MeitY sent a mail in respect of extending support to implement three projects in addition to e-Auction Application**



- 1. Meeseva 2.0**
- 2. RTA Services**
- 3. RTDAI – Pension Schemes of TS**
- 4. eProcurement / eAuction**



# **CLOUD**

**eOffice Application Suite  
Migration to CLOUD Environment  
Based on  
TS Cloud First Policy**

## Using EC2 Auto Scaling to Reduce Usage and Costs:

- **The ITE&C Dept., migrated 33 District Instances, 1 Secretariat Instance to CLOUD environment.**
- **Migrated nearly 95 TB of data, 150 servers consuming about 7,000 GB of memory, and more than 600 CPUs without downtime and no loss of Data.**
- **A total of 3,000–5,000 officers and staff are using the eOffice application regularly**

प्रशासनिक सुधार और लोक शिकायत विभाग  
कार्मिक, लोक शिकायत एवं पेंशन मंत्रालय  
भारत सरकार



DEPARTMENT OF ADMINISTRATIVE REFORMS AND PUBLIC GRIEVANCES  
MINISTRY OF PERSONNEL, PUBLIC GREIVANCES AND PENSIONS  
GOVERNMENT OF INDIA

**राष्ट्रीय ई-ऑफिस कार्यशाला  
एवं सीपीजीरैम्स सुधारों का लोकार्पण**  
12 फरवरी, 2020  
प्रवासी भारतीय केन्द्र, चाणक्यपुरी, नई दिल्ली

**NATIONAL WORKSHOP ON E-OFFICE  
AND LAUNCH OF CPGRAMS REFORMS**

12<sup>TH</sup> FEBRUARY, 2020  
PRAVASI BHARATIYA KENDRA, CHANAKYAPURI, NEW DE





# **Block Chain**

**e-Procurement /  
e-Auction**

**Application**

## **Benefits of e-Procurement Platform:**

- **Reduction of inventory cost and cycle time of procurement.**
- **Storage of documents & bids in encrypted form.**
- **Transparency in evaluation.**
- **Improved Institutional memory due to storage of electronic records.**
- **Data analysis and purchase trends of the supply market.**
- **Reduction in Administrative cost.**
- **Reports and Spend analysis**

## e-Procurement Statistics :

Financial Year	No of Tenders Published	Value in Crores	No of Tenders Awarded	Value in Crores
2020-2021	54915	52265.74	30170	32455.46
2021-2022	72512	41167.6	36222	11295.27
01-04-2022 to 09-05-2022	8377	4288.58	3076	1337.92
	289079	191965.61	131503	69376.53



# Conference on e-Governance

FEBRUARY, 2018 ♦ HICC, HYDERABAD







**Certified on GFR Guidelines at  
Mussorrie IAS Academy**

**on  
e-Procurement /  
e-Auction**

**Certification Awarded**





# **Government Order Issue Register (GOIR)**

**The latest version of GOIR 2.0 is  
launched with new features for use  
of all the Departments**



# Government of Telangana

## Government Order Issue Register



- HOME
- ABOUT
- HELP
- CONTACT
- RTI
- VIEW GO'S
- ARCHIVED GO'S

### Govt. Calendar 2022

July 2022

Su	Mo	Tu	We	Th	Fr	Sa
25	27	28	29	30	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31	1	2	3	4	5	6

● General Holiday    ● Optional Holiday  
 10-EIDUL AZHA(BAKRID)    1-RATHA YATHRA  
 25-BONALU    18-EID-E-GHADEER

### GOIR LOGIN

Username

Password

Login



Telangana State Portal  
telangana.gov.in



COVID-19

Government of Telangana

### Downloads

[Adobe Reader](#)

[PrimoPDF](#)

[Winrar](#)



## GOIR ABSTRACT REPORT

S.No.	Project	2014	2015	2016	2017	2018	2019	2020	2021	2022 (12/07/ 2022)	Total
1	GOIR	10309	22129	25252	23961	21570	18950	15881	19197	10185	<b>167434</b>
2	CTDO	16228	43839	48804	43326	52113	52184	86053	68580	18733	<b>429860</b>
3	TGTO	2037	4443	4059	4957	4141	3973	3979	5151	3491	<b>36231</b>
4	FMS	50563	120462	116844	108033	99112	70105	38978	58930	39693	<b>702720</b>
5	SOMS	0	0	10769	13357	11643	10205	7243	8837	4534	<b>66588</b>

### Covid Related GO's (from 24-03-2020 to 12-07-2022):

- Covid Related GO's issued - **330**
- Covid Related GO's downloaded by public- **51,652**



**Drones**

**TS-Genco**













# **National Broadband Mission (NBM)**

**Right of Way (RoW)  
Telangana State  
(Implementation of 5G-Small Cells)**









































# **Aadhaar**

**Implementation of DBT Schemes  
with Sections 7 (DBT related)  
and  
Section 4 (Good Governance)**

# Key Enablers of DBT



## Mobile

- Citizen centric Mobile Apps for submitting applications and checking status; SMS based communication
- Last mile access; UPI, Mobile banking



## Aadhaar as unique identifier

- Targeted beneficiary identification through authentication and de-duplication
- Financial address and seamless financial transaction



## Banking Facilities

- **Jan Dhan Yojana** (National Financial Inclusion Drive) : Low value bank accounts.
- **Jan Dhan Darshak mobile app** launched to guide the common people in locating a financial service touch point at a given location



## Network Infrastructure

- Efficient and reliable network connectivity is a pre-requisite for DBT transactions
- Enabled IT systems for effective monitoring of DBT



> 11.4 crore mobile subscribers; > 75 crore smartphone users

~133 crore Aadhaar generated  
Aadhaar Saturation  
>18 yrs : >99%

Total 149.3 crore bank accounts (operational) in India, including 38.5 crore PMJDY accounts

High-speed Optical Fibre Cable network to 250,000 Gram Panchayats (GPs)

Note: As on 31<sup>st</sup> Mar 2022



## Key Activities in DBT implementation



- **Nodal Officers** across all DBT implementing Departments (Centre /State)
- **Assessment of Schemes for DBT applicability**
- **Process Re-engineering** of DBT schemes
- **Digitization** through Scheme Management System
- **Online and Mobile-based Beneficiary Registration and De-duplication** using Aadhaar authentication
- **Electronic Fund Transfers (preferably Aadhaar-based)** directly to beneficiaries' bank account
- **Beneficiary Authentication** at time of benefit transfer for in-kind schemes
- **Compliance to data security and data privacy standards**, including storing of Aadhaar numbers (data vault)
- Use of **Local Government Directory** codes across all beneficiary databases
- **DBT payments (bearing unique DBT Scheme codes)** get priority in banking systems.
- **Citizen-centric Mobile App (UMANG)** for easy citizen-centric access on palmtop.
- **Reporting on DBT Bharat portal** for comprehensive national picture

## Use of Aadhaar in Welfare Delivery – Legal provisions



- **Section 4 (7):** Aadhaar authentication can be mandatory under a law promulgated by Parliament (e.g. linking of PAN with Aadhaar)
- **Section 4 (4)(b)(ii):** Voluntary use of Aadhaar, in the interest of State. No denial of service (e.g. National Digital Health ID)
- **Section 7:** Aadhaar authentication, subject to the condition that alternate and viable means of identification are available and Aadhaar enrolment is facilitated. This section is used for DBT and was upheld by the Hon'ble SC in its 2018 judgement.







**Conduct of Hackathons for  
Engineering College Students  
by**

**eGovernance Wing**





Telangana State  
**Smart City Hackathon**

1st Edition

GRAND

Online Hackathon (Round 1)





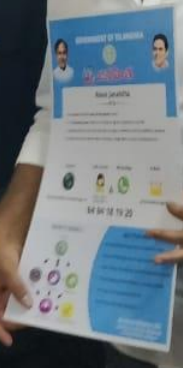
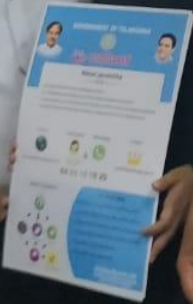


**Projects encouraged by Hon'ble  
Minister for IT Shri. K.T. Rama Rao  
garu**

**in  
Implementation Strategy by  
eGovernance Wing**















## **Projects promoted by Gov**

**Government eMarket Place (GeM)**

**NeSDA, eTAAL, Digi Locker,  
PMGDISHA**



# **Projects Developed by NIC**

**Implementation Strategy by  
eGovernance Wing**



# Collab Files



**NIC**  
**One Day Workshop**  
**75 Azadi Ka Mahotsav**  
**Create Collaborate**











# **Welcoming Parliamentary Committees / Secretaries from DARPG**

## **Conduct of National eGovernance Conferences**









on Technology











gana Po  
at a Glo









**SUBWAY**

75  
Azadi Ka  
Amrit Mahotsav



सम्मेलन

e-Governance



BEST PANDEMIC WORLD

राष्ट्रीय स्वयंसेवक संघ  
अखिल भारतीय सम्मेलन बैंगलूर  
आयतन - मुंबई ५१२३

०९ नवंबर २०२३ - ११ नवंबर २०२३

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**SKY  
CABS**  
AIRPORT AUTHORITY

Call: 49 49 49











**The Support extended by the team comprising of AD(eGov) / AD / SeMT and SPMU for the past 5 years is an immense support for extending eGovernance Projects in the Telangana State**

**towards**

**Digital Telangana**







**I am proud to say that, I am honored to work in e-Governance Wing under the able guidance of Hon'ble Minister for IT & Industries Shri. K.T.Rama Rao garu and Shri. Jayesh Ranjan, IAS, Prl. Secretary, ITE&C**

**towards**

**Digital Telangana**



**I am thankful to work in  
e-Governance Wing under the able  
guidance of  
Shri. G.T. Venkateshwara Rao, IRS,  
Commissioner ESD / MD TSTS**

**towards**

**Digital Telangana**



**I am thankful to all the departmental officers who are keen to implement Digitization of Government Departments and who extending support to me in person to drive the e-Governance Projects**

**towards**

**Digital Telangana**





**On the occasion of Guru Poornima  
I express my gratitude and thankful to  
my Guru, Philosopher, Guide,  
Colleague and friend for being guiding  
me throughout our journey in office  
and in person too**

**Shri. B.V. Subrahmanyam, AD (eGov)  
ITE&C Department, Telangana  
Secretariat, Hyderabad**



**Thank you**