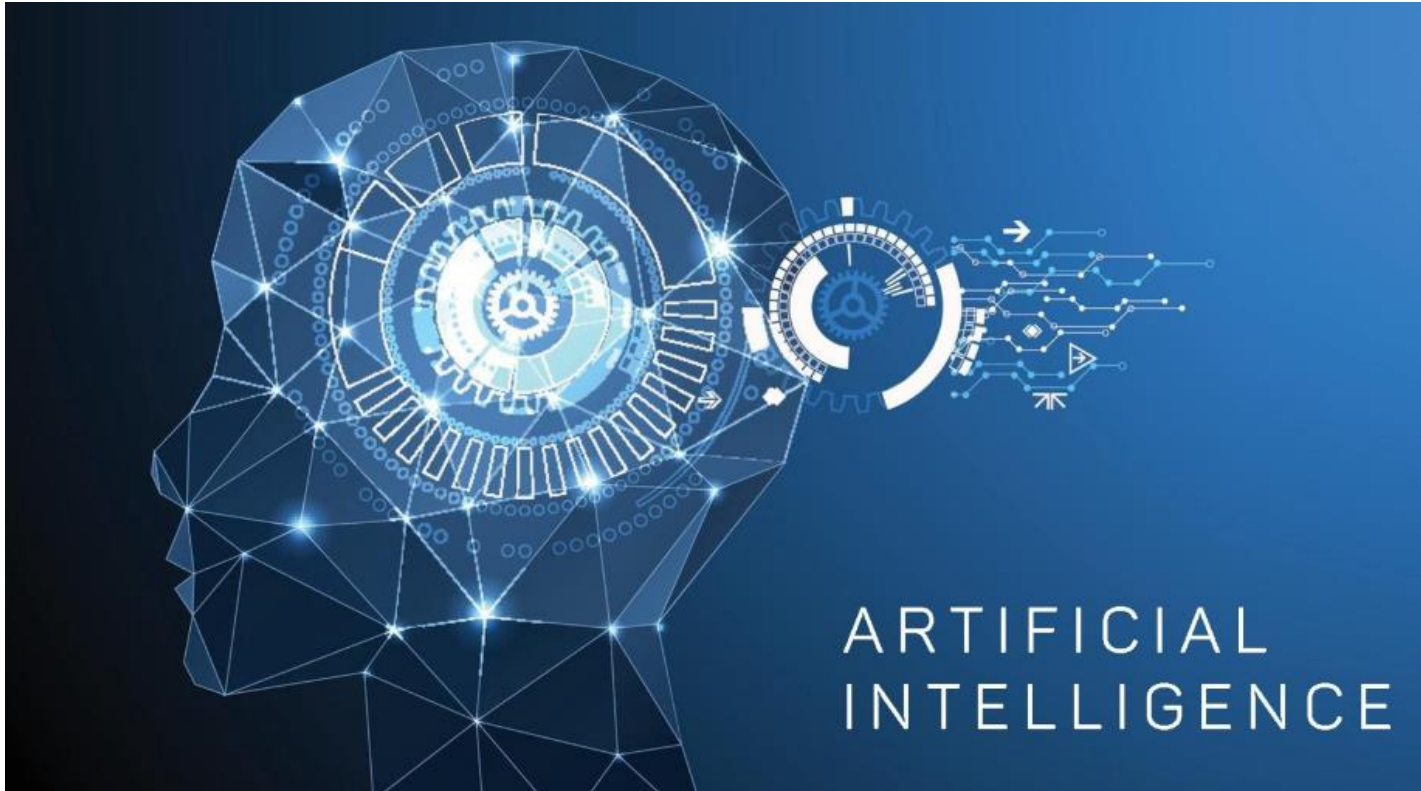


# Artificial Intelligence and its Use Cases in NIC



Dr. L.P.Sharma, State Informatics Officer(Sikkim)

# Artificial Intelligence

## Relation Among AI, ML & DL



Machine learning is a type of AI that enables machines to learn from data and deliver predictive models.



The machine learning is not dependent on any explicit programming but the data fed into it. It is a complicated process.



Based on the data you feed into machine learning algorithm and the training given to it, an output is delivered.



A predictive algorithm will create a predictive model.

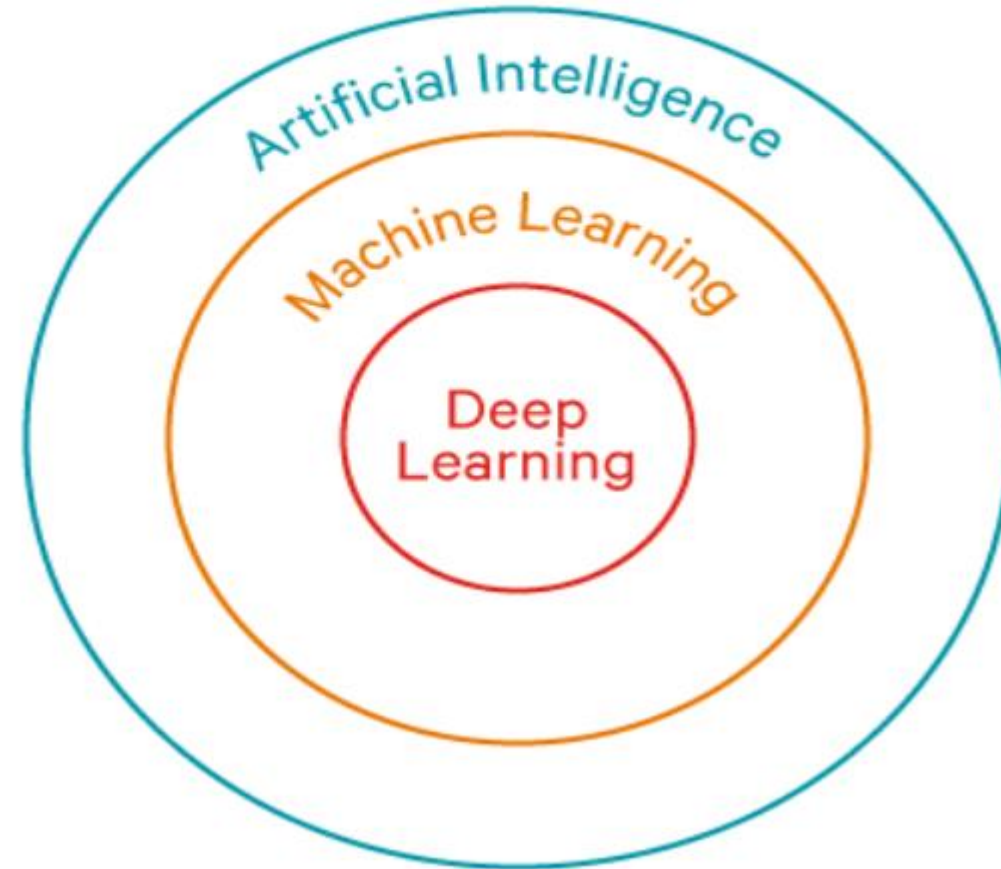


**Deep Learning** is a subfield of machine learning that is concerned with algorithms inspired by the brain's structure &

>>>> functions known as **artificial neural networks**

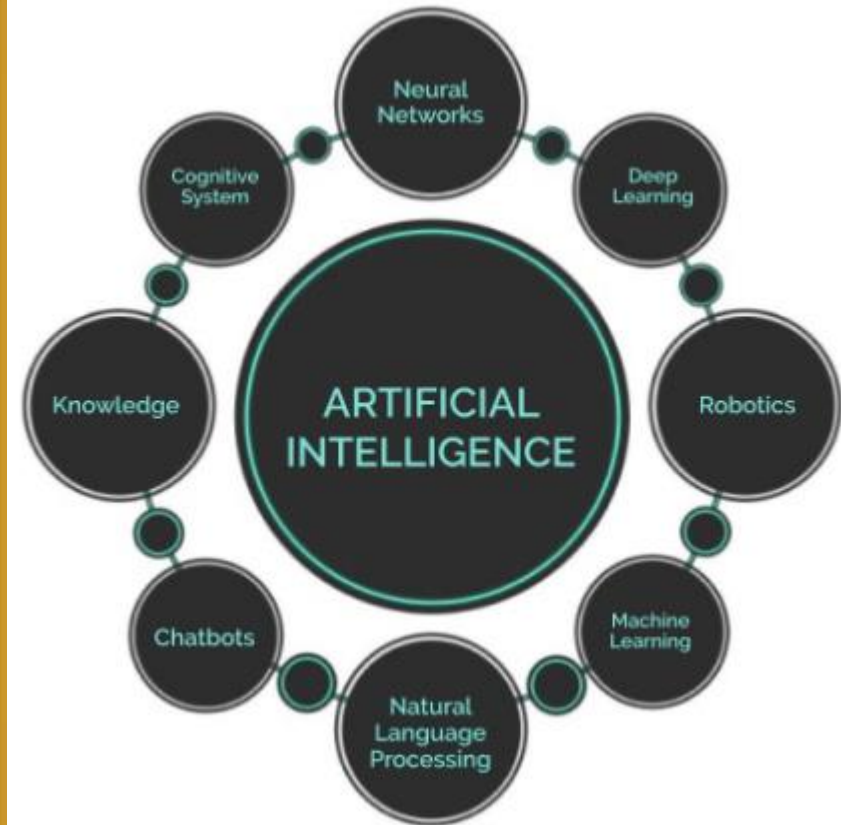
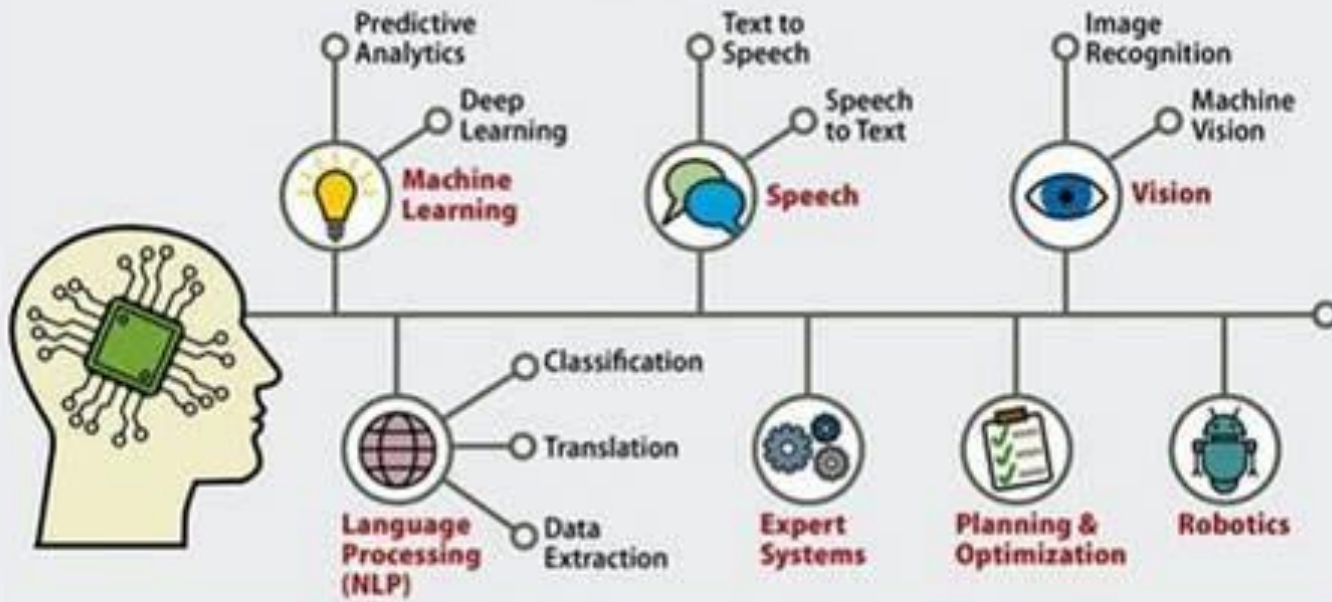


A computer model can be taught using Deep Learning to run classification actions using pictures, texts or sounds as input

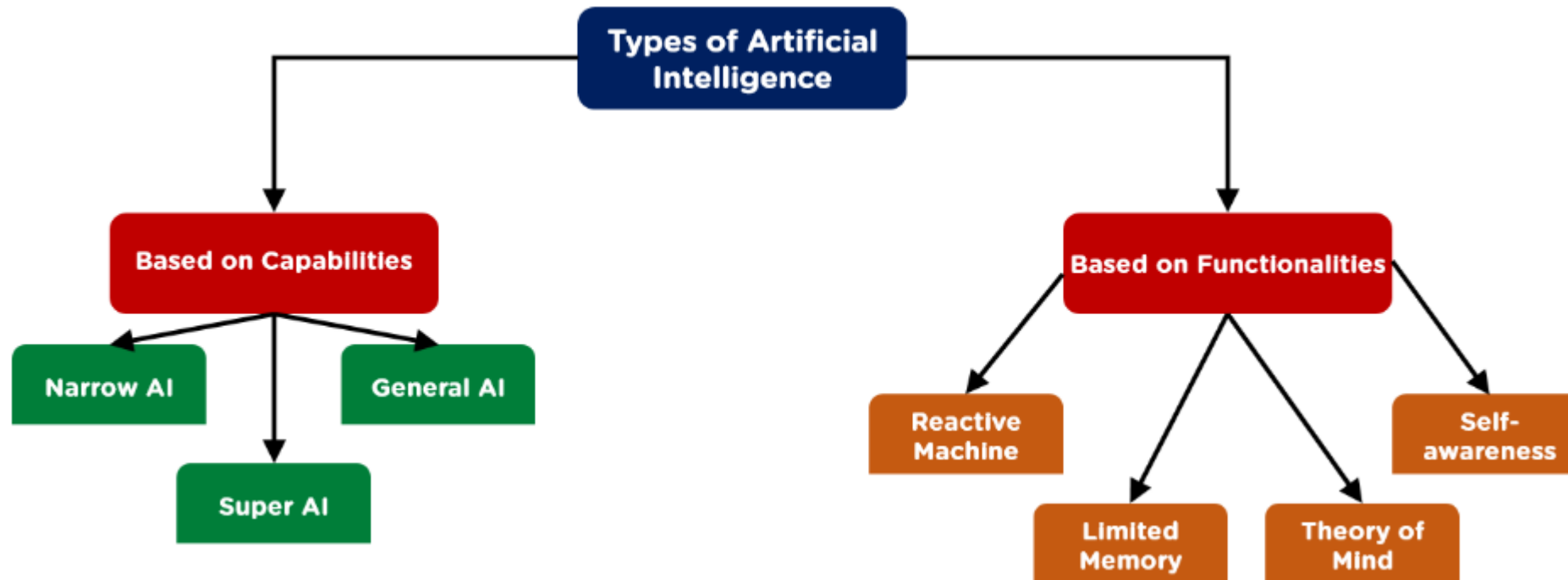




## Artificial Intelligence



# Artificial Intelligence –Capabilities and Functionalities



# What is ChatGPT ?

- **Generative Artificial Intelligence** (also generative AI or GenAI) is artificial intelligence capable of generating text, images, or other media, using generative models. Generative AI models learn the patterns and structure of their input training data and then generate new data that has similar characteristics.
- **Generative Pre-trained Transformers (GPT)** are a type of large language model (LLM) and a prominent framework for generative artificial intelligence. The first GPT was introduced in 2018 by OpenAI. GPT models are artificial neural networks that are based on the transformer architecture, pre-trained on large data sets of unlabelled text, and able to generate novel human-like content. As of 2023, most LLMs have these characteristics and are sometimes referred to broadly as GPTs.
- **ChatGPT** is a natural language processing AI model developed by OpenAI. It is part of the GPT-3.5 architecture, which stands for "Generative Pre-trained Transformer 3.5." ChatGPT is designed to understand and generate human-like text based on the input it receives. It can be used for a wide range of natural language processing tasks, such as answering questions, generating text, providing explanations, and engaging in text-based conversations. ChatGPT is trained on a vast dataset of text from the internet, allowing it to generate coherent and contextually relevant responses to text-based queries. It has been used in various applications, including chatbots, virtual assistants, content generation, and more, to enhance human-computer interactions through natural language understanding and generation.



## × AI Image Generator ⓘ

"an Indian beautiful girl wearing sari, Pink portrait with trendy aesthetic. Emphasize beauty, masterpiece quality, and gorgeous details. "



Download



Download



Download



Download

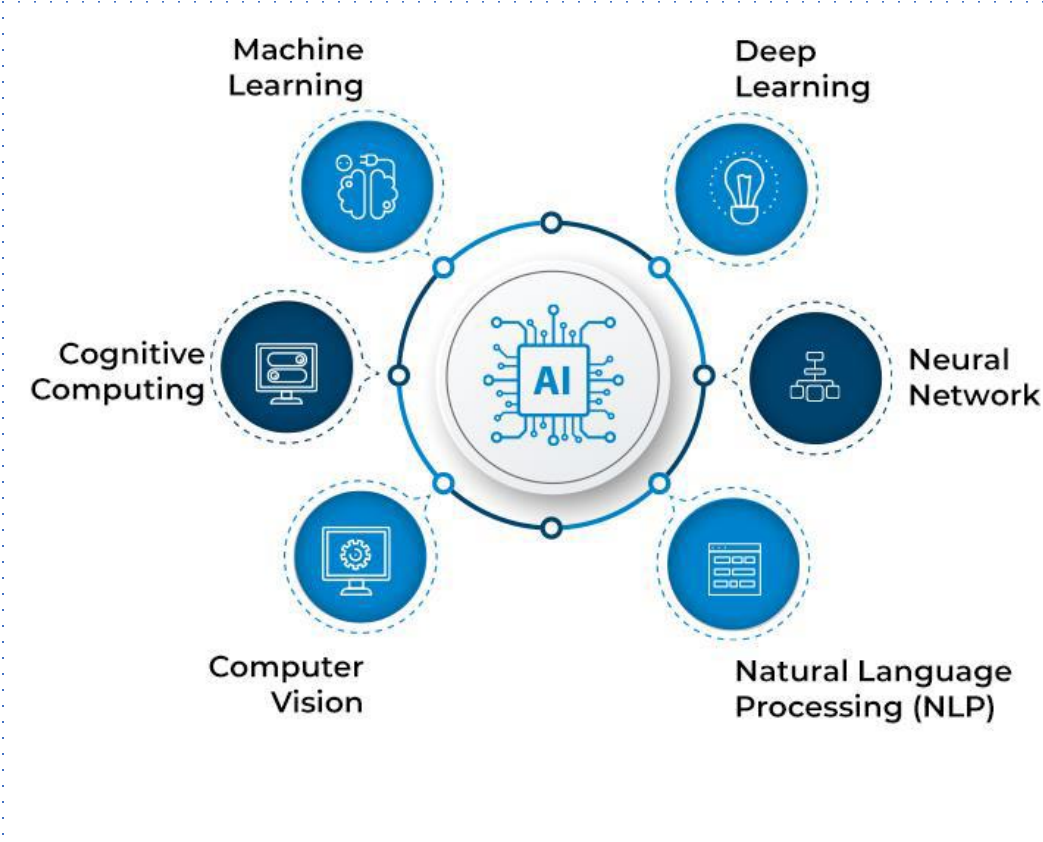
Edit Adjust Effects Remove BG Remove AI Enhance Animation



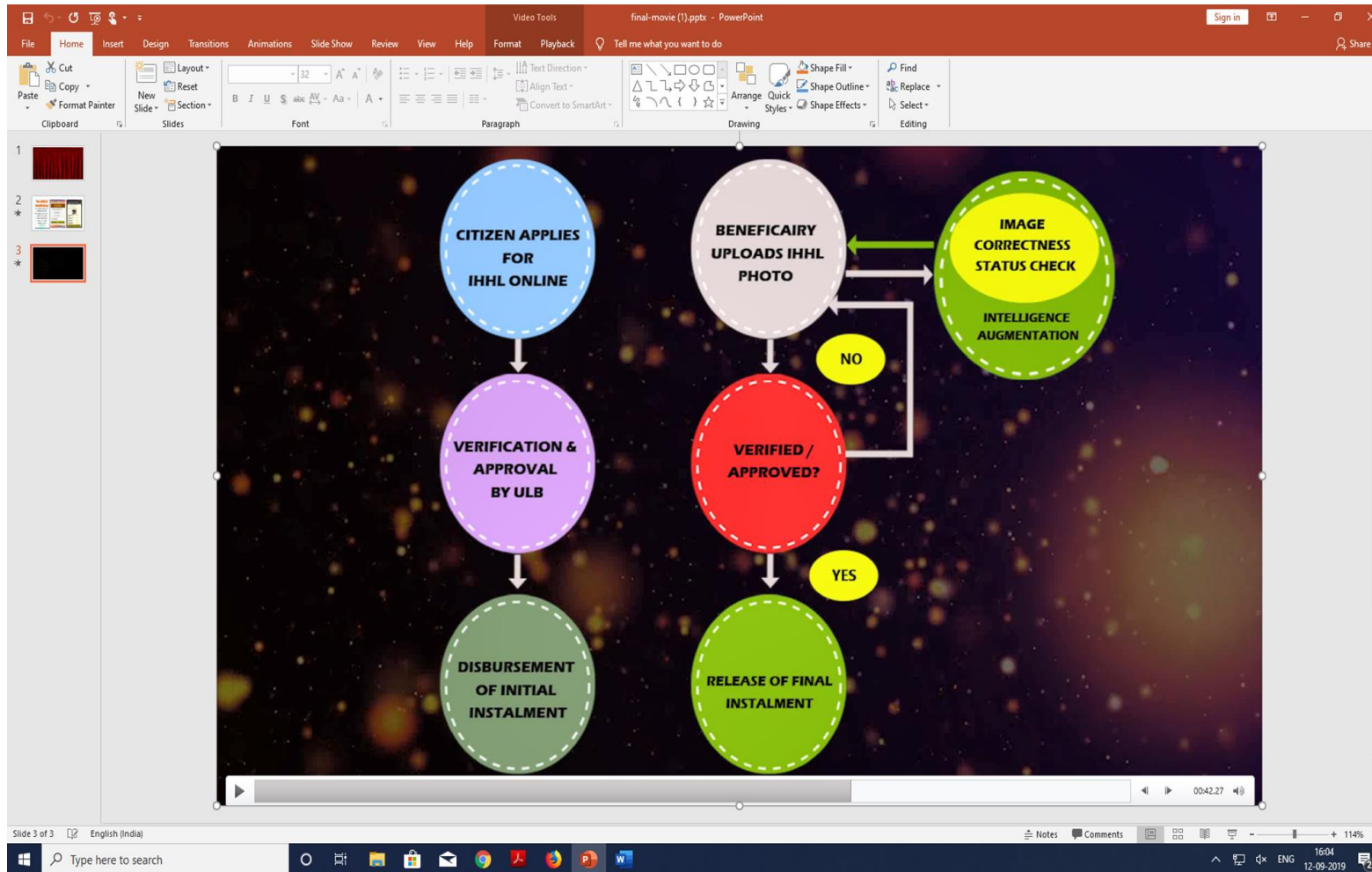
# National Informatics Centre

## Centre of Excellence in Artificial Intelligence

Objective of CoE-AI@NIC is to infuse AI in eGovernance to automate repetitive tasks and aid with assistive technologies to Improve Citizen Service Delivery



# End to End - Reduce turn around time - in eGovernance Projects



**District : South Andaman**

**Application ID : AN18Q0000003**



Toilet Seat Visible in the image?	Yes
Beneficiary Detected in the image?	Yes
Constructed Toilet Photo Verified?	No

Intelligence Augmentation in in Process Workflow : SwachhAI Mobile App released for SBM Urban in Aug. 2019 by MOS (MOHUA)



# Bringing Efficiency in Work Culture – Computer Vision Applications

The screenshot shows a four-step process: Step-1 (Image Upload), Step-2 (Id Detail Extraction), Step-3 (Face Extraction), and Step-4 (Text Extraction). A progress bar indicates the current step is Step 3 / 4. Below the progress bar, there are tabs for 'Id Detail Extraction', 'Face Extraction', and 'Text Extraction'. The 'Id Detail Extraction' tab is active, showing an 'Upload Id Proof' section with a 'Choose File' button and a 'No file chosen' message. Below this is an 'Upload Preview' section showing a small image of a person's face. To the right of the preview is a 'Photo Preview' section showing a larger image of a person's face. Below the photo preview is a table with the following details:

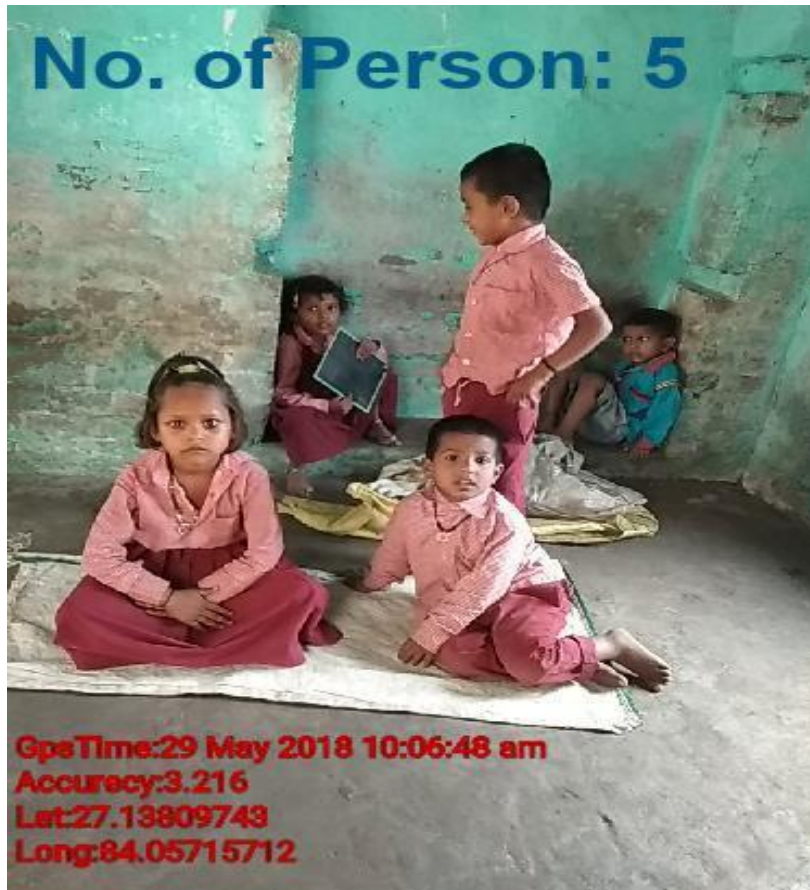
Image Details	
Id Proof Type :	Aadhaar Card
Aadhar Card No. :	80951
Name :	RI
Date Of Birth :	19/
Age	39

AI based Online learner license- first of its kind in the country!

- Learner license from home
- Aadhar based authentication, data and photo porting from Aadhar
- AI based Face recognition technology with feature mapping
- Auto generation of E-learner license
- Approx. 4.13 lakh applicants to benefit annually
- From 8<sup>th</sup> August to 10<sup>th</sup> August, 2021 - more than 400 e-Learners License applications received.

- RTO – Elearners License Test
- NTA – JEE/NEET Online Forms Image Checking
- PESO – Online Paperless Filing of Applications
- Utkarsh Bangla – Contactless Attendance of Skill Development Trainees
- Meghalaya Treasury – Life Certificate for Pensioners

## Helping in Policy Formulations – Help assess Scheme Effectiveness – ICDS/SBM Rural



The image shows a Linux desktop environment with a terminal window displaying the output of a Python script named `image_comparison2.py`. The script is located in the directory `/Downloads/ruralImageMatching`. The terminal output shows the results of the image matching process, including the file paths of the images being compared, the keypoints detected, and the matches found. The matches are listed as pairs of image paths, such as `images/912483031.jpg` and `images/912201447.jpg`. The terminal also shows the command `python image` being executed.

```

import cv2
import os
import numpy as np
import glob

original = cv2.imread('original.jpg')
image_to_compare = cv2.imread('image_to_compare.jpg')

# 1) Check if the images are grayscale
if original.isgrayscale():
    original = cv2.cvtColor(original, cv2.COLOR_BGR2GRAY)
if image_to_compare.isgrayscale():
    image_to_compare = cv2.cvtColor(image_to_compare, cv2.COLOR_BGR2GRAY)

# 2) Check if the images are of the same size
if original.shape != image_to_compare.shape:
    print("The images are not of the same size")
    exit()

# 3) Find the keypoints
kp1 = cv2.KeyPoint_1
kp2 = cv2.KeyPoint_2

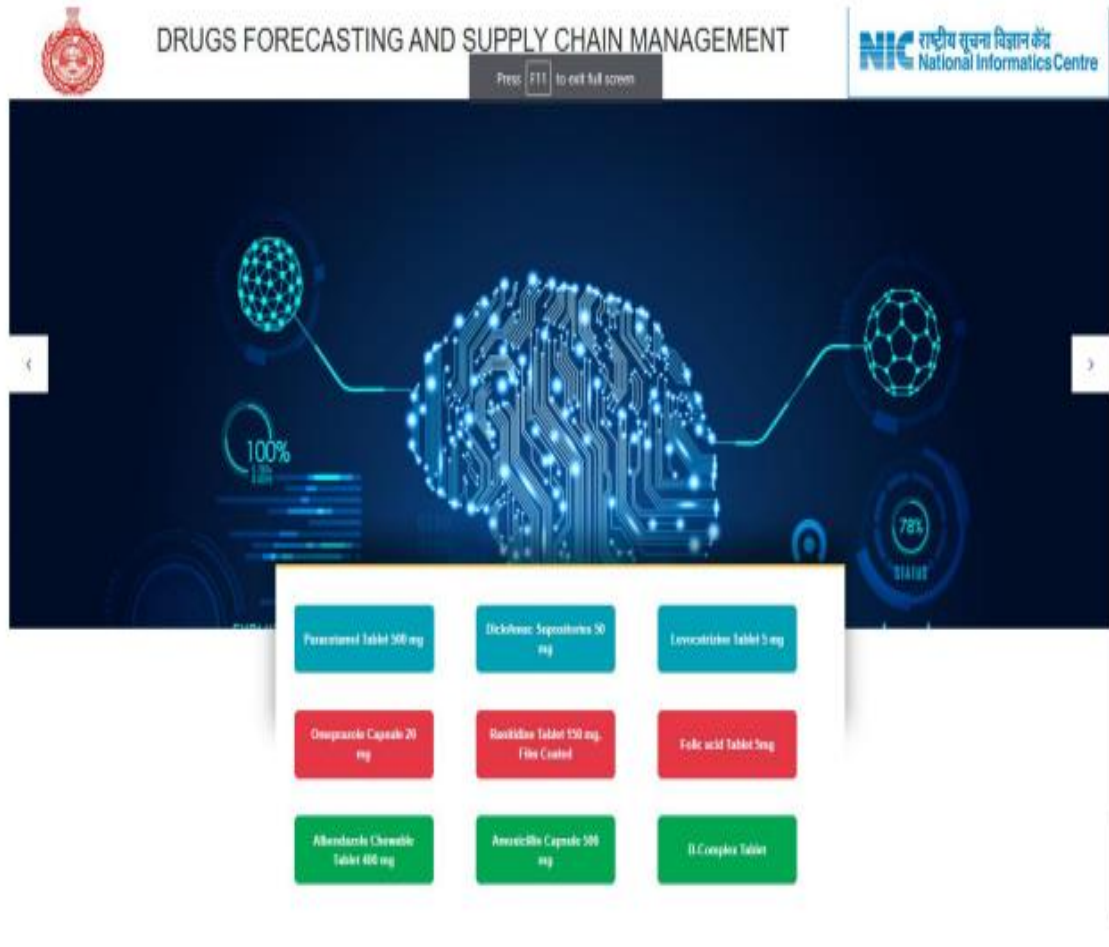
# 4) Find the matches
matches = cv2.FlannBasedMatcher(index_params, search_params)

# 5) Draw the matches
result = cv2.drawMatches(original, kp1, image_to_compare, kp2, good_points, None)

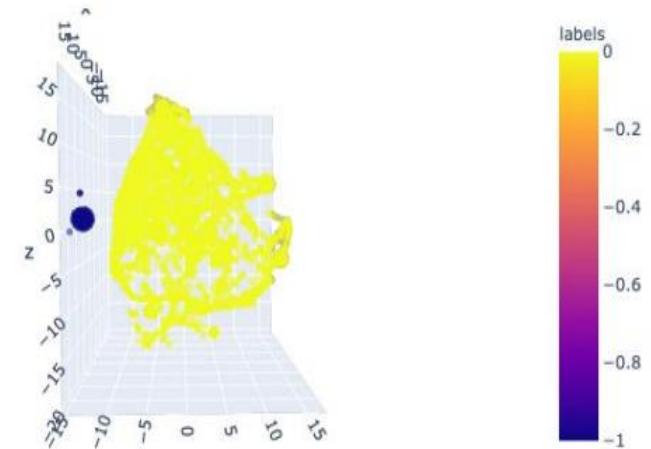
cv2.imshow('result', result)
cv2.waitKey(0)
cv2.destroyAllWindows()

```

# Trend Forecasting – Demand for Drugs / GST Tax Fraud Detection



## Cluster Analysis on Gold Sector data





# Easing Citizens' Interface with Government - VANI

The screenshot displays the Vaidya VANI web application interface. The top header includes the NIC logo, the text 'एन आई सी National Informatics Centre', and a 'Logout' button. The user is logged in as a 'Junior Resident' with the following details: IMA ID: IMA12345, IP Phone: 5962, Login Time: 05/07/2021 01:37:01 PM, and Department: Psychiatry and Deaddiction Clinic (Alcohol and). A 'Patients in Queue' table shows 0 patients for JR, SR, and SP categories. The main form is titled 'Patient General Details' and includes fields for 'Present Complaints', 'Examination/LAB Findings', 'Current Medication', 'Allergies', 'Associated Ailments' (with checkboxes for Acidity, Asthma, Hypotension, Hypertension, Diabetes, Piles, Heart Disease, and Thyroid Disorder), 'Addiction if any' (with checkboxes for Smoking, Alcohol, and Tobacco Chewing), 'Provisional Diagnosis', and 'Remarks'. At the bottom of the form are buttons for 'Change Department', 'End Call', 'Emergency', and 'Forward'. A 'Resend Link' button is also present. On the right side, there is a video feed of a female doctor in a blue coat, with buttons for 'Document(0)' and 'Images(2)' below it. The footer text reads 'Designed and Developed by AIRD, National Informatics Centre 0.6'.

Patients in Queue		
JR	SR	SP
0	0	0

Patient General Details	
Present Complaints *	
Examination/LAB Findings	
Current Medication	
Allergies	
Associated Ailments	<input type="checkbox"/> Acidity <input type="checkbox"/> Asthma <input type="checkbox"/> Hypotension <input type="checkbox"/> Hypertension
	<input type="checkbox"/> Diabetes <input type="checkbox"/> Piles <input type="checkbox"/> Heart Disease <input type="checkbox"/> Thyroid Disorder
Addiction if any	<input type="checkbox"/> Smoking <input type="checkbox"/> Alcohol <input type="checkbox"/> Tobacco Chewing
Provisional Diagnosis	
Remarks	

- Vaidya Vani - TeleMedicine consultancy services
- OPD patients get prescription over sms / email
- Basic telephony/ Smartphones - In Production
- User : LHMC OPD

# Cognitive Search on unstructured documents - Judiciary

AI@NIC

Home

MACP

About

profile

logout

Petition

Enter Details

Case Details\*

This case arose out of an application u/s 166 of the M.V. Act on account of death of Kanai Ghosh in motor accident. Briefly stated , the case of the petitioner is that , on 01.12.16 at about 8.00 P.M(night) Kanai Ghosh (deceased) was proceeding towards to Tarapur through Khalseuli to Kharagpur Road under Jhargram P.S by walking keeping himself in the left side of the road at that time near Tarapur More the offending Motor Cycle bearing no. WB-34D/8720 came from opposite side and in a rash and negligent manner dashed the deceased . As a result victim sustained grievous injuries all over his body and with the help of local people , he was taken to Midnapore Medical College & Hospital and after treatment

submit

Similar Case Search Based On Language Modeling




Showing 1 to 5 of 10 entries

Search:




filename	victim's age (years)	status	income (₹/month)	predicted	confidence score (%)																														
<a href="#">westbengal/burdsjdb/202100015512014_1</a>	50	death	6000	allowed	95.382																														
<table><tr><td>Loss of dependency/Loss of Earnings(Past,Present &amp; Future)(₹)</td><td>643500</td><td colspan="4">Citations</td></tr><tr><td>Hospital, Medical and other incidental expenses ( ₹)</td><td>NA</td><td colspan="4">• United India Insurance Company Ltd =Vs.= Shila Datta( 2011) 10 SCC 509</td></tr><tr><td>Compensation( ₹)</td><td>713500</td><td colspan="4">• Cooke vs. Gill [ reported in (1873) 8 CP 107 : 42 LJCP 98 ]</td></tr><tr><td>Interest Awarded ( %)</td><td>7</td><td colspan="4">• [ Alchemist Ltd. &amp; anr. vs. State Bank of Sikkim (2007) 11 SCC 335 ( Para 21 )</td></tr><tr><td colspan="2"></td><td colspan="4">• Navinchandra N Majithia vs. State of Maharashtra &amp; ors. reported in ( 2007) 7 SCC 640</td></tr></table>						Loss of dependency/Loss of Earnings(Past,Present & Future)(₹)	643500	Citations				Hospital, Medical and other incidental expenses ( ₹)	NA	• United India Insurance Company Ltd =Vs.= Shila Datta( 2011) 10 SCC 509				Compensation( ₹)	713500	• Cooke vs. Gill [ reported in (1873) 8 CP 107 : 42 LJCP 98 ]				Interest Awarded ( %)	7	• [ Alchemist Ltd. & anr. vs. State Bank of Sikkim (2007) 11 SCC 335 ( Para 21 )						• Navinchandra N Majithia vs. State of Maharashtra & ors. reported in ( 2007) 7 SCC 640			
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		• Navinchandra N Majithia vs. State of Maharashtra & ors. reported in ( 2007) 7 SCC 640																																	
<a href="#">westbengal/burdsjdb/202100017082014_1</a>	49	death	8500	allowed	94.718																														
<table><tr><td>Loss of dependency/Loss of Earnings(Past,Present &amp; Future)(₹)</td><td>1147250</td><td colspan="4">Citations</td></tr><tr><td>Hospital, Medical and other incidental expenses ( ₹)</td><td>NA</td><td colspan="4">• United India Insurance Company Ltd =Vs.= Shila Datta( 2011) 10 SCC 509</td></tr><tr><td>Compensation( ₹)</td><td>1217250</td><td colspan="4">• Cooke vs. Gill [ reported in (1873) 8 CP 107 : 42 LJCP 98 ]</td></tr><tr><td>Interest Awarded ( %)</td><td>7</td><td colspan="4">• Alchemist Ltd. &amp; anr. vs. State Bank of Sikkim (2007) 11 SCC 335 ( Para 21 )</td></tr><tr><td colspan="2"></td><td colspan="4">• Navinchandra N Majithia vs. State of Maharashtra &amp; ors. reported in ( 2007) 7 SCC 640</td></tr></table>						Loss of dependency/Loss of Earnings(Past,Present & Future)(₹)	1147250	Citations				Hospital, Medical and other incidental expenses ( ₹)	NA	• United India Insurance Company Ltd =Vs.= Shila Datta( 2011) 10 SCC 509				Compensation( ₹)	1217250	• Cooke vs. Gill [ reported in (1873) 8 CP 107 : 42 LJCP 98 ]				Interest Awarded ( %)	7	• Alchemist Ltd. & anr. vs. State Bank of Sikkim (2007) 11 SCC 335 ( Para 21 )						• Navinchandra N Majithia vs. State of Maharashtra & ors. reported in ( 2007) 7 SCC 640			
Loss of dependency/Loss of Earnings(Past,Present & Future)(₹)	1147250	Citations																																	
Hospital, Medical and other incidental expenses ( ₹)	NA	• United India Insurance Company Ltd =Vs.= Shila Datta( 2011) 10 SCC 509																																	
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		• Navinchandra N Majithia vs. State of Maharashtra & ors. reported in ( 2007) 7 SCC 640																																	
<a href="#">bihar/purdj/210600006842013_1</a>	48	death	6000	allowed	87.323																														
<table><tr><td>Loss of dependency/Loss of Earnings(Past,Present &amp; Future)(₹)</td><td>374400</td><td colspan="4"></td></tr><tr><td>Hospital, Medical and other incidental expenses ( ₹)</td><td>NA</td><td colspan="4"></td></tr><tr><td>Compensation( ₹)</td><td>341400</td><td colspan="4"></td></tr><tr><td>Interest Awarded ( %)</td><td>6</td><td colspan="4"></td></tr></table>						Loss of dependency/Loss of Earnings(Past,Present & Future)(₹)	374400					Hospital, Medical and other incidental expenses ( ₹)	NA					Compensation( ₹)	341400					Interest Awarded ( %)	6										
Loss of dependency/Loss of Earnings(Past,Present & Future)(₹)	374400																																		
Hospital, Medical and other incidental expenses ( ₹)	NA																																		
Compensation( ₹)	341400																																		
Interest Awarded ( %)	6																																		
<a href="#">bihar/purdj/210600000372016_1</a>	50	death	9000	allowed	71.914																														
<table><tr><td>Loss of dependency/Loss of Earnings(Past,Present &amp; Future)(₹)</td><td>200000</td><td colspan="4"></td></tr><tr><td>Hospital, Medical and other incidental expenses ( ₹)</td><td>NA</td><td colspan="4"></td></tr><tr><td>Compensation( ₹)</td><td>200000</td><td colspan="4"></td></tr><tr><td>Interest Awarded ( %)</td><td>8</td><td colspan="4"></td></tr></table>						Loss of dependency/Loss of Earnings(Past,Present & Future)(₹)	200000					Hospital, Medical and other incidental expenses ( ₹)	NA					Compensation( ₹)	200000					Interest Awarded ( %)	8										
Loss of dependency/Loss of Earnings(Past,Present & Future)(₹)	200000																																		
Hospital, Medical and other incidental expenses ( ₹)	NA																																		
Compensation( ₹)	200000																																		
Interest Awarded ( %)	8																																		



# AI as a Service

Service Logo	Service Description
<p>वाणी</p>  <p>VANI</p>	<p>Virtual Assistance by NIC (VANI) supports</p> <ul style="list-style-type: none"> <li>➤ Multi Lingual Chatbots and</li> <li>➤ Bi Lingual Voice Support Services over Basic Telephony in English &amp; Hindi</li> </ul>
<p>पाणिनि</p>  <p>PANINI</p>	<p>Panini Text Translation Services Support in 22 Indic languages</p> <ul style="list-style-type: none"> <li>• Assamese, Bengali, Bodo, Dogri, Gujarati, Hindi, Nepali</li> <li>• Kannada, Kashmiri, Konkani, Maithili, Malayalam, Manipuri,</li> <li>• Marathi, Oriya, Punjabi, Tamil, Telegu, Urdu</li> </ul>
<p>मात्रा</p>  <p>Matra</p>	<p>Matra Text Transliteration Services Support in 12 Regional languages</p> <ul style="list-style-type: none"> <li>• Assamese, Bengali, Gujarati, Hindi</li> <li>• Kannada, Malayalam, Marathi, Nepali</li> <li>• Nepali, Oriya, Punjabi, Sanskrit, Santali, Sindhi, Tamil , Telegu, Urdu</li> </ul>

# AI as a Service

Service Logo	Service Description
<p>सत्यापिकानन</p>  <p>Satyapikaanan</p>	<p>Satyapikaanan Face Verification Services Supports</p> <ul style="list-style-type: none"> <li>➤ Face Detection</li> <li>➤ Face Verification</li> <li>➤ Antispoofing &amp; Image Quality Analysis</li> <li>➤ Gesture Recognition</li> </ul>
<p>श्रुति</p>  <p>Shruti</p>	<p>Shruti Automatic Speech Recognition Services</p> <ul style="list-style-type: none"> <li>➤ Support for Text Transcription in English &amp; Hindi</li> <li>➤ Speech Recognition &amp; Synthesis</li> <li>➤ Upcoming Services in other Indic Languages</li> </ul>
<p>सारांश</p>  <p>Saransh</p>	<p>Saransh Document Summarisation Services in English</p> <ul style="list-style-type: none"> <li>➤ Supports both Extractive Text Summarisation &amp;</li> <li>➤ Abstractive Text Summarisation</li> </ul>

# AI AS A SERVICE ON MEGHRAJ CLOUD



## AlaaS - AI Product Services

User does not need to apply AI Model Building – Access Built Models through APIs.

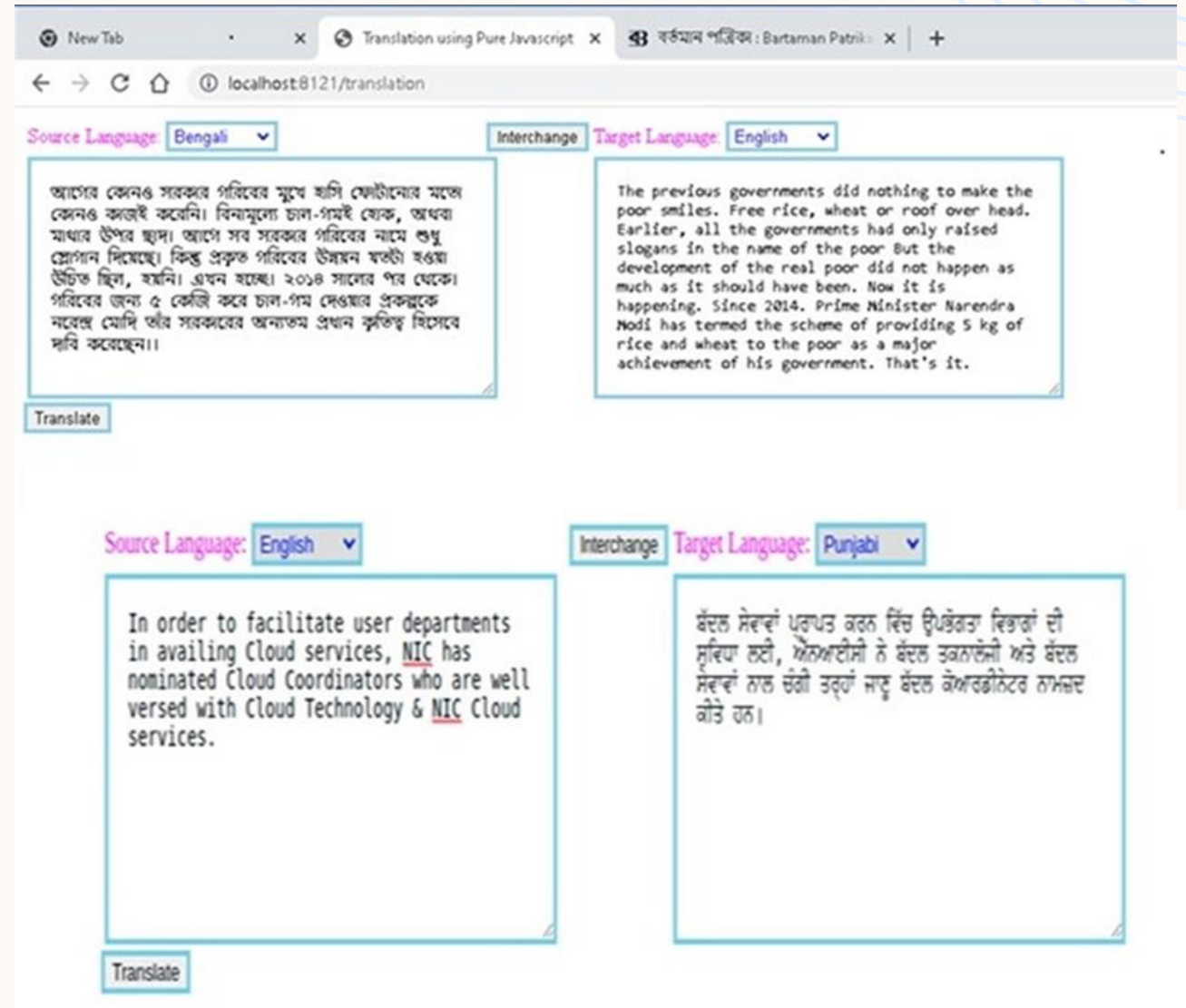
- 01 **AI वाणी**  
Chatbot & Voice Support Services
- 02 **AI सत्यापीकानन**  
Face Verification Services
- 03 **AI पाणिनि**  
11 Indic languages Text Translation Services
- 04 **AI परिचय**  
Personally Identifiable Information Services
- 05 **AI सारांश**  
Document Summarisation Services
- 06 **AI श्रुति**  
Voice to Text Services





# AI PANINI - TEXT TRANSLATION SERVICES

- Potential Use Case - Translation of Judgments, Preparation of Paper Books for submission to HCs.
- Current Users – S3WaaS, Collab Files, Supreme Court
- Platform supports – 22 Indic languages Text Translations



# AI Saransh – Text Summarisation Services

POTENTIAL USE CASE – CREATING SUMMARY/ HEADNOTES OF THE JUDGEMENTS

CURRENT USERS – MSME, PADMA AWARDS

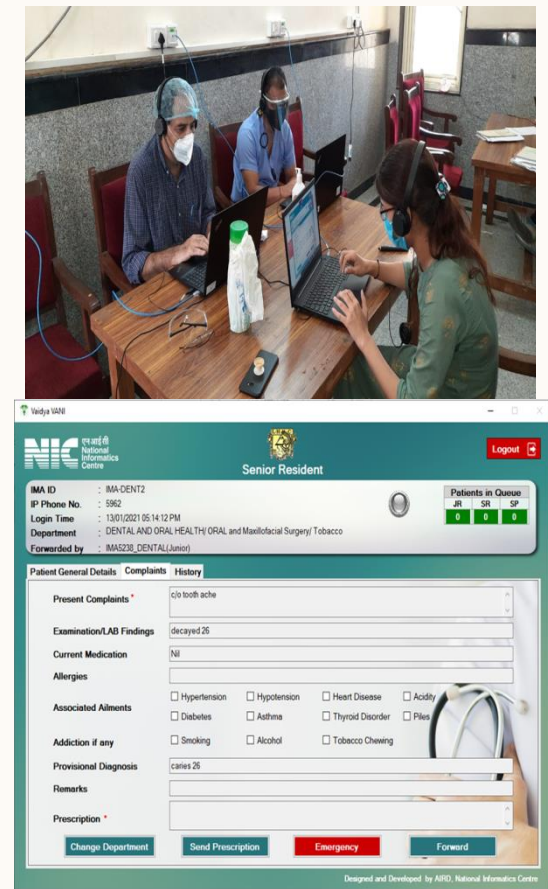
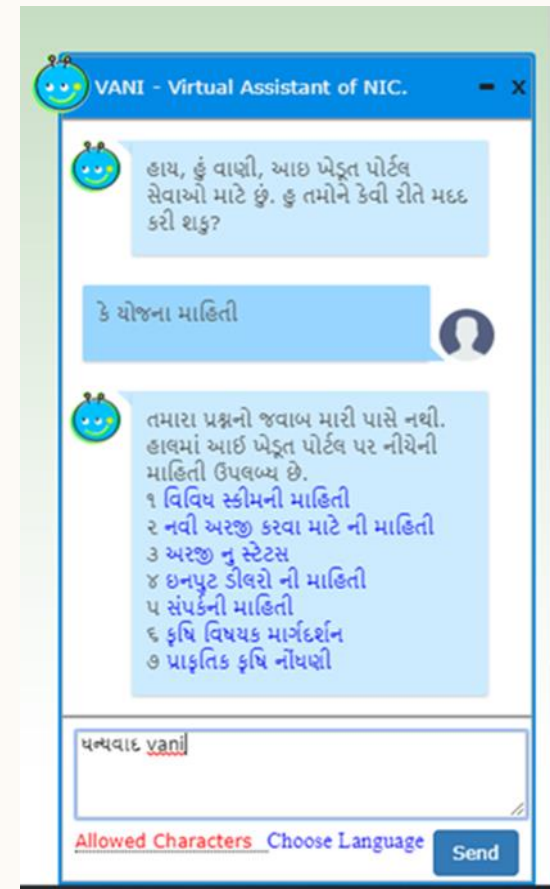
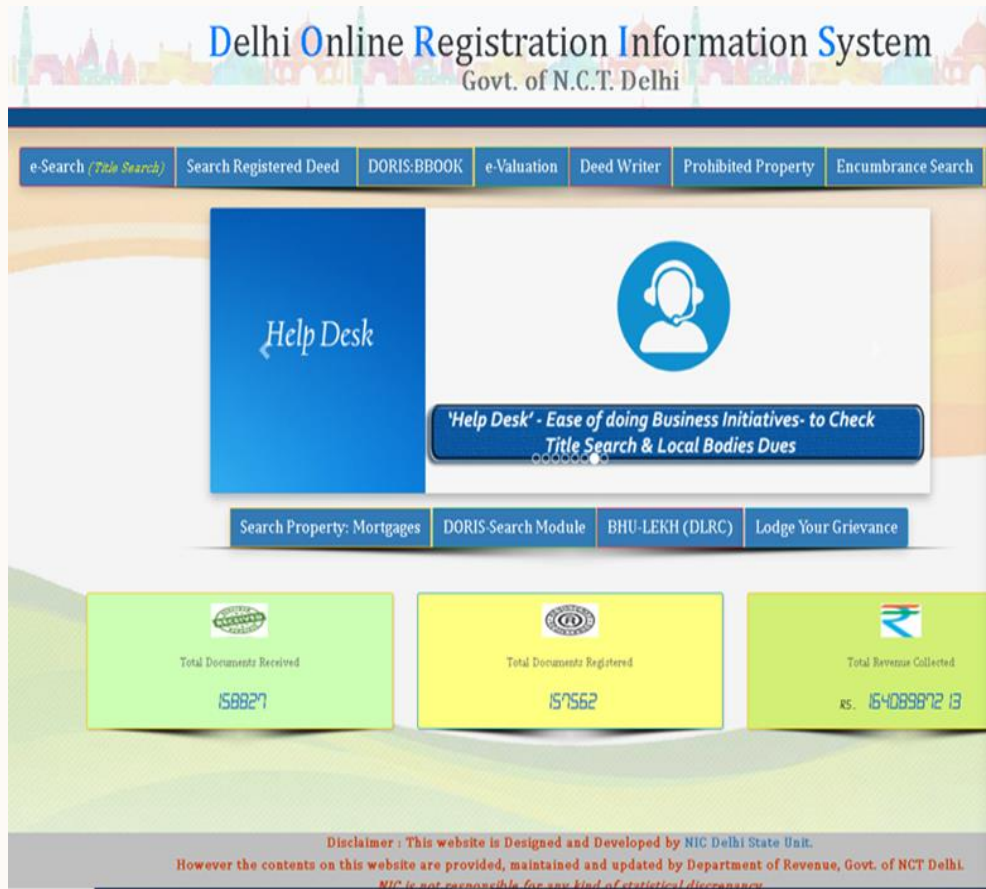
PLATFORM SUPPORTS – BOTH EXTRACTIVE/ ABSTRACTIVE SUMMARY IN ENGLISH

The screenshot displays the AI SARANSH Text Summarization web application. The interface includes a header with logos for NIC (National Informatics Centre), Azadi Ka Amrit Mahotsav, and COE-AI (Centre of Excellence in Artificial Intelligence). The main content area features a large blue brain graphic with the text "AI SARANSH Text Summarization". Below this, a section titled "What Is Text Summarization?" explains the technique and lists two types: Extractive and Abstractive. The central part of the interface is a text input area with a "Choose file" button, a "No file chosen" status, and an "Extract" button. Below the input area, there are radio buttons for "Abstractive" and "Extractive" (selected), a "No. of sentences" input field set to "5", and a "Summarize" button. To the right, an "Output" section displays the summarized text. The footer contains logos for Digital India, india.gov.in, and MeitY, along with a footer bar with links for Contact Us, Photogallery, Disclaimer, Copyright Policy, Privacy Policy, and Terms & Conditions. A note on the right side of the footer bar states: "COE AI is Designed, Developed and Hosted by National Informatics Centre, Ministry of Electronics & Information Technology, Government of India."



# AI VANI – CHATBOT/ VOICE SERVICES

- Potential Use Case – Answer citizens' queries in eCourts portal, NJDG, Virtual Courts etc..
- Current Users – Confonet, Loksabha, PM-Kisan, PM-Kusum, IVFRT, PM- Mann ki Baat, LHMC - VOPD Services etc..
- Platform supports – MultiLingual Chatbots in 11 Indic languages, BiLingual Voice Support over Basic Telephony



# AI Shruti – Text Transcription Services<sup>20</sup>

POTENTIAL USE CASE – DICTATION OF JUDGEMENTS, RECORDING OF DEPOSITIONS ETC..  
PLATFORM SUPPORTS – SPEECH TO TEXT IN ENGLISH AND HINDI  
AI PIPELINE – CAN TRANSLATE TO TEXT IN ANY OF 11 INDIC LANGUAGES

The screenshot displays the AI Shruti web application interface. The header features the NIC logo, the text "SPEECH TO TEXT NATURAL LANGUAGE UNDERSTANDING TEXT TO SPEECH DEMO", and the COE-AI logo. A navigation bar includes links for HOME, ASR DEMO, ASR NMT DEMO, TTS DEMO, CHATBOT DEMO, VOICEBOT DEMO, and CONTACT.

**Automatic Speech Recognition (ASR)**

ASR ( Automatic Speech Recognition) is all about using computers to transform the spoken word into the written one. ASR is a subfield of Artificial Intelligence (AI) in which a computer recognizes spoken words and transforms them into text. The process is also commonly referred to as "speech-to-text" or Transcription Services. The process can be applied to live speech or audio recordings. In short, ASR is the technology that makes it possible to dictate texts into your application for voice inputs.

This service may be needed for eFile noting to be dictated and transcribing to text or translating to another language, eg. A note maybe dictated in English and eFile noting written in Hindi or vice versa, filing APAR, during video conferencing . IVRS based systems, filing user form, VOICEBOTS etc.

User Department / Ministry using NIC Cloud VM can request for ASR by filling ASR Service request form the first time they are applying for the Service on MeghRaj Cloud of NIC and

**Text To Speech (TTS)**

Text-to-Speech (TTS) is application that plays audio to users. It allows you to strings, words, and sentence of a person speaking the s to-Speech (TTS) technology network techniques to deliver engaging, and personalized

Text-to-Speech(TTS) allow create natural-sounding, speech as playable audio. audio data files you crea Speech to power your augment media like v recordings.

Text to speech(TTS) make across platforms available visual impairments, low disabilities, and other barrier

The interface also shows a "Settings" panel with a "Translate" dropdown set to "Hindi -> English" and a "Start" button. The main content area displays a transcription of a speech, showing the original Hindi text, an English translation, and a summary of the session.

**Automated Speech Recognition (Speech To Text) Transcription And Translation**

दिलाई है योगी जी को उस कार्यक्रम में मौजूद थे आप हम यहां लाइव देख रहे थे और इससे अच्छा मौका क्या हो सकता है कि आप सीधे से भी आ पहुंचे हैं सवाल का वहीं से शुरू करता हूं आपकी इजाजत से

सबका साथ सबका विकास सबका विश्वास इस नारे के साथ पार्टी जीत रही है

इस सेशन का थीम भी यही है दो हजार चौदह से ले आ चुके हैं

यही फार्मूला है बिनिंग का

programme, you were watching live here, and what better opportunity can there be than this that you have come directly from there and start the questions from there with your permission?

With this slogan, 'Sabka Saath, Sabka Vikas, Sabka Vishwas', the party is winning

That's the theme of this session, from two thousand fourteen, has already come.



# AI SATYAPIKAANAN – FACE VERIFICATION SERVICES

POTENTIAL USE CASES – NSTEP MOBILE APP, PRISONERS FACE BIOMETRICS BEING DONE IN ICJS PLATFORM SUPPORTS – IMAGE QUALITY ANALYSIS, FACE DETECTION, VERIFICATION, ANTISPOOFING, GESTURE RECOGNITION, FACE RECOGNITION

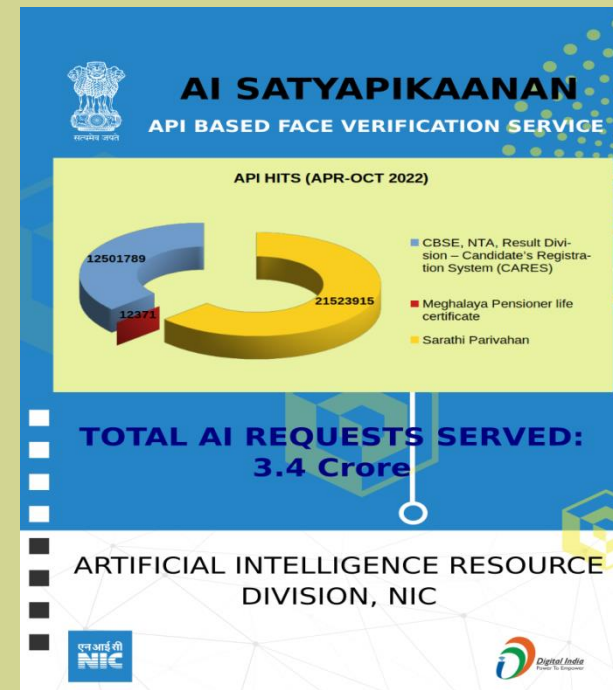


SBM Urban Toilet Seat/  
Beneficiary Detection

**LEARNERS LICENSE  
AUTOMATIC DRIVING  
LICENSE RENEWAL**  
**RTO – Sarathi**  
**30-35 lacs AI Service  
Requests/ month**

**CONTACTLESS ATTENDANCE  
MOBILEAPP**

**Utkarsh Bangla – PBSSD**  
**500 Training Centres**  
**1 lac Trainees**



**ONLINE FORM SUBMISSION  
DEDUPLICATION**

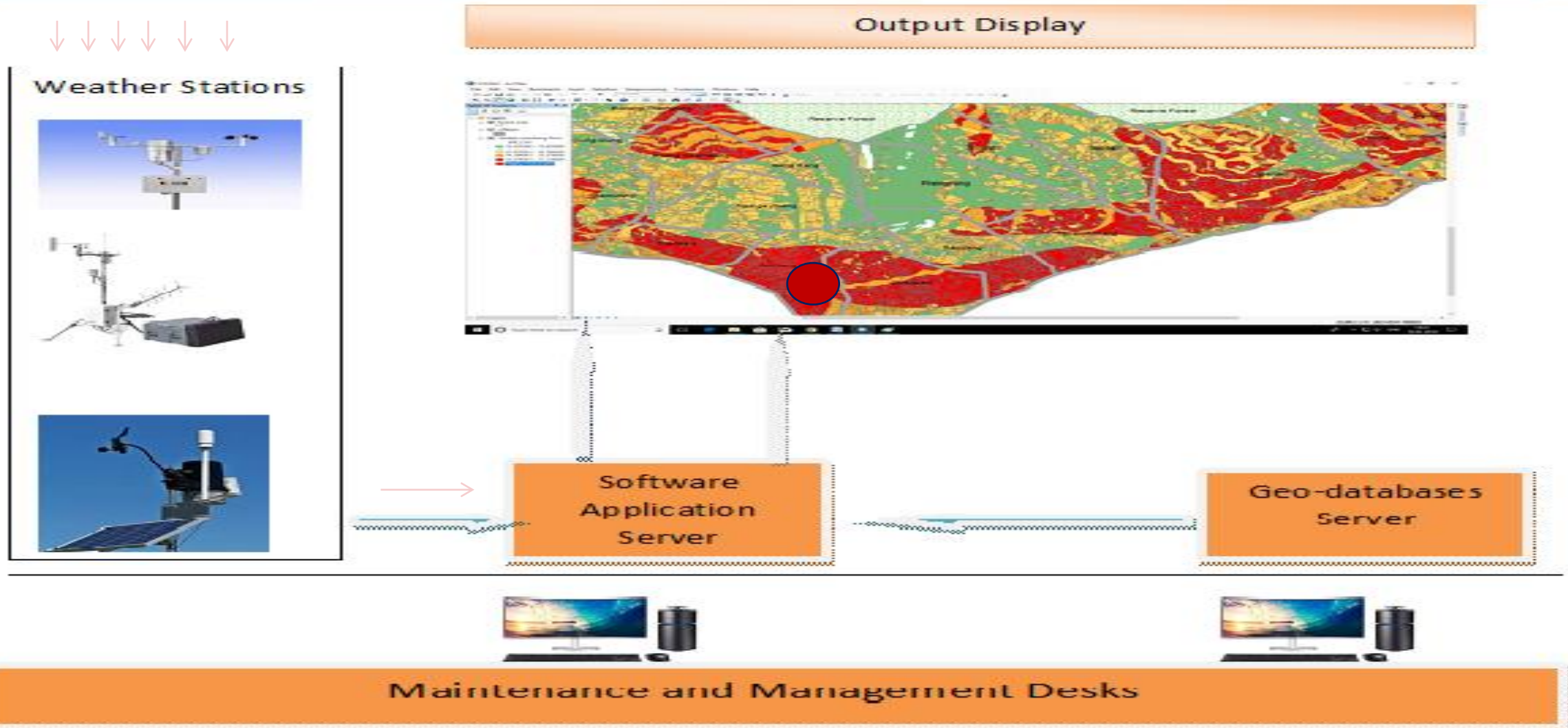
**NTA – JEE/ NEET**  
**20-25 Lacs AI service  
Requests/ month**

**LIFE CERTIFICATE APP FOR  
PENSIONERS**

**Meghalaya Treasury**  
**Manipur**  
**Kerala in Process**

# ARTIFICIAL INTELLIGENCE BASED HAZARD ALERT

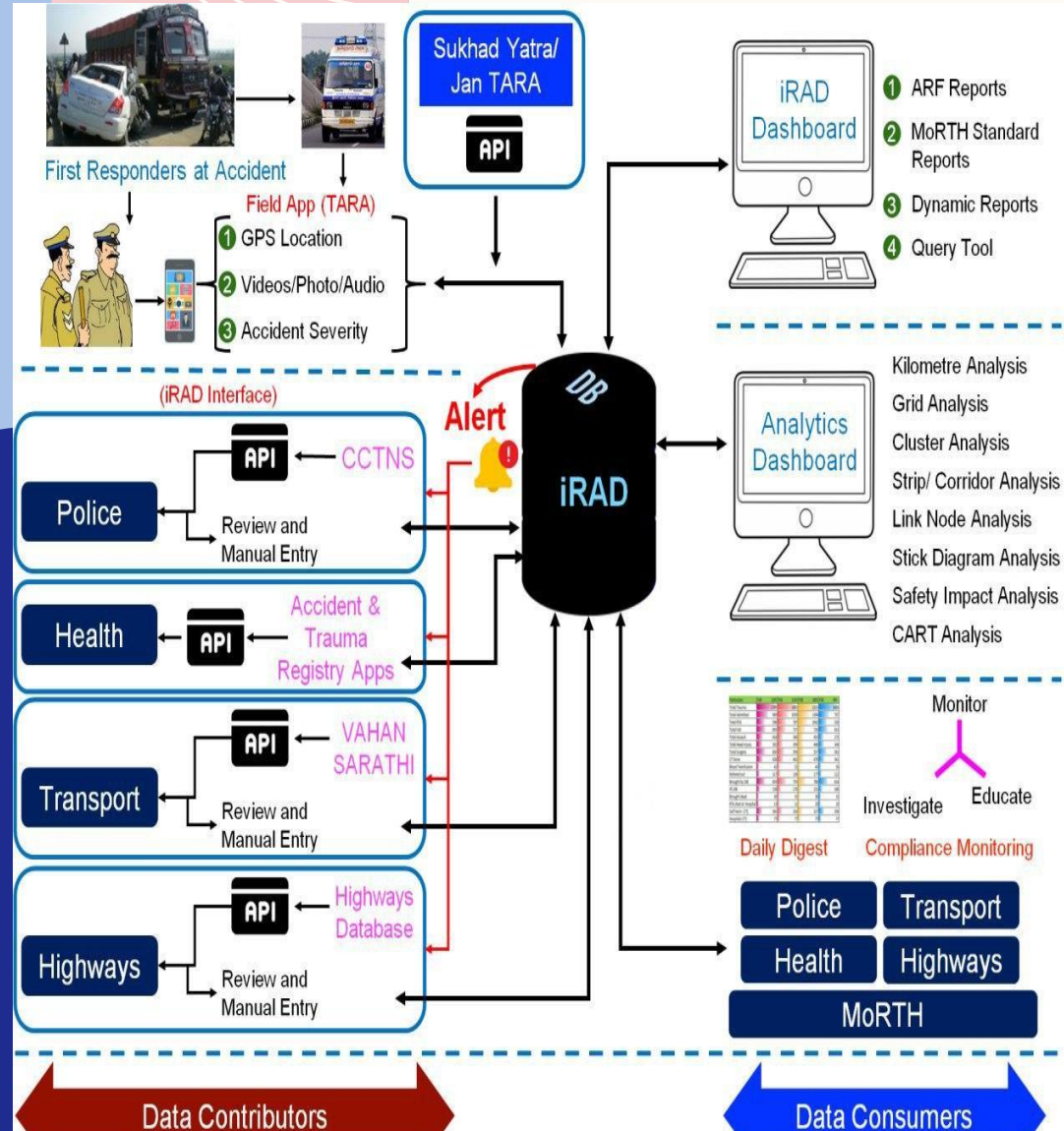
## Alert System Architecture



- Score of AI integration in Ongoing E-Governance Projects

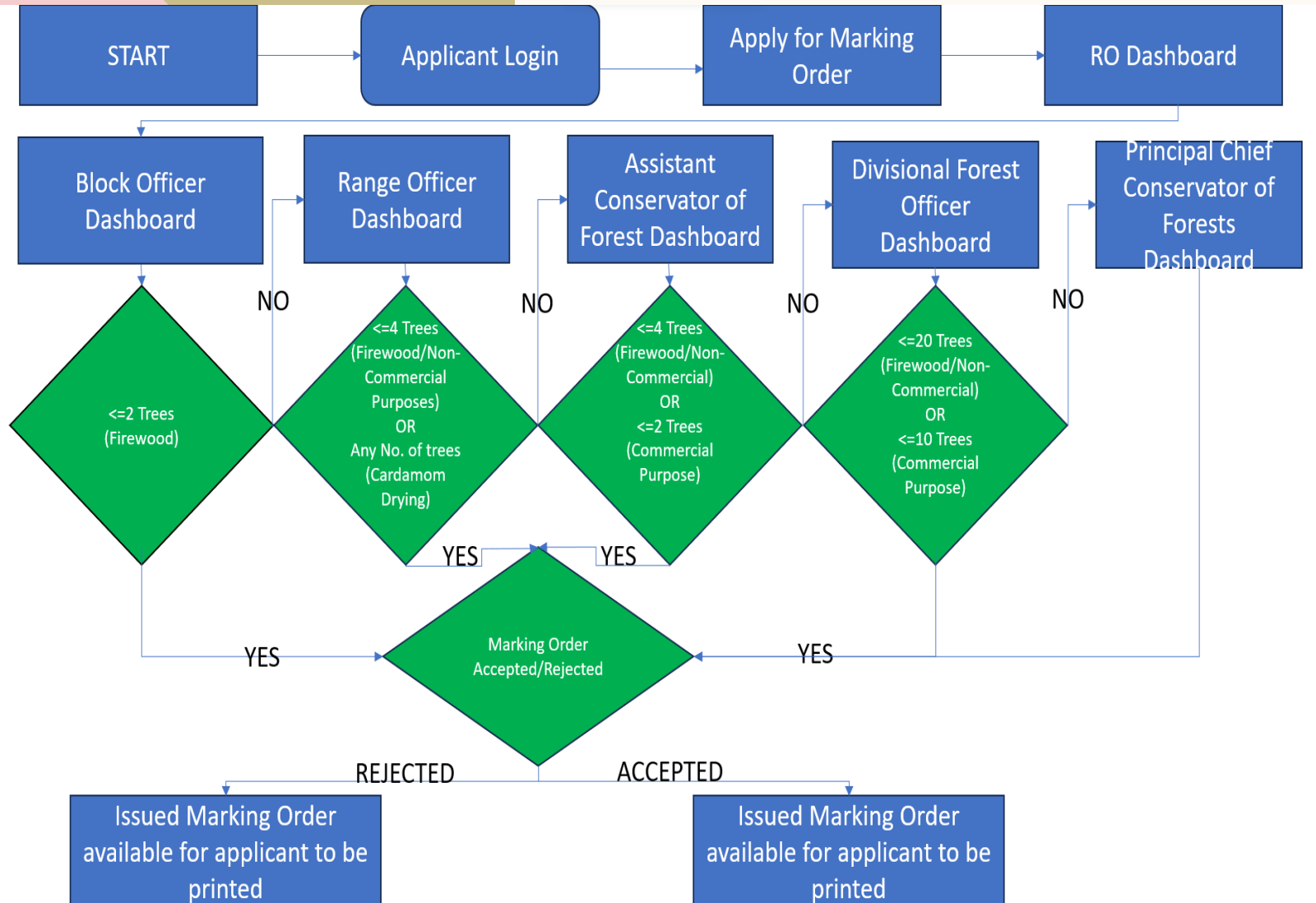


# INTEGRATED ROAD ACCIDENT DATABASES



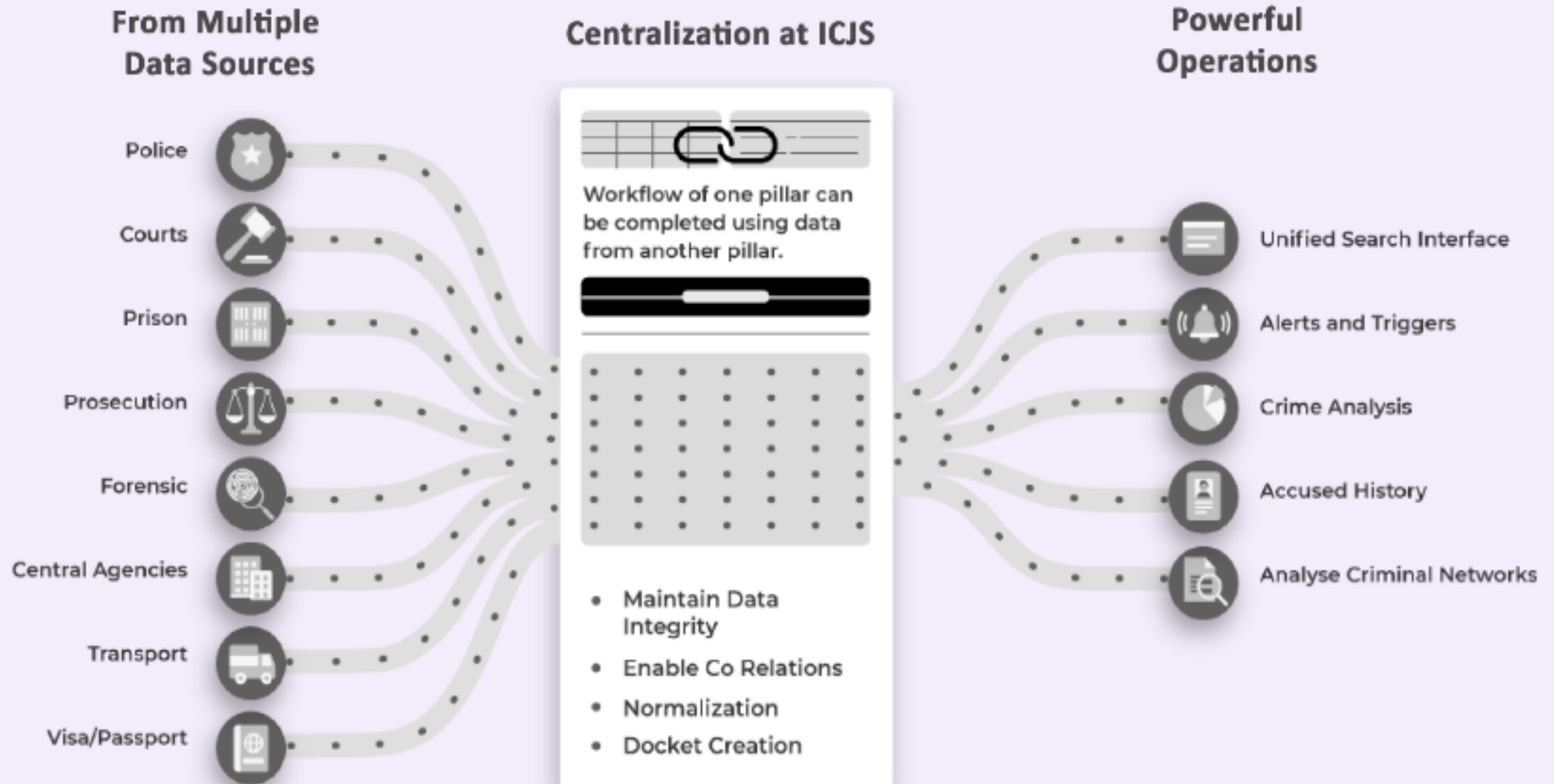
- Road Accident Prediction
- Alert Systems for Police Personals
- Alert Systems for Drivers.

# PERMISSION FOR CUTTING TREES- MARKING ORDERS



- Guiding Applicants
- Chatbots
- Decision making for foresters.

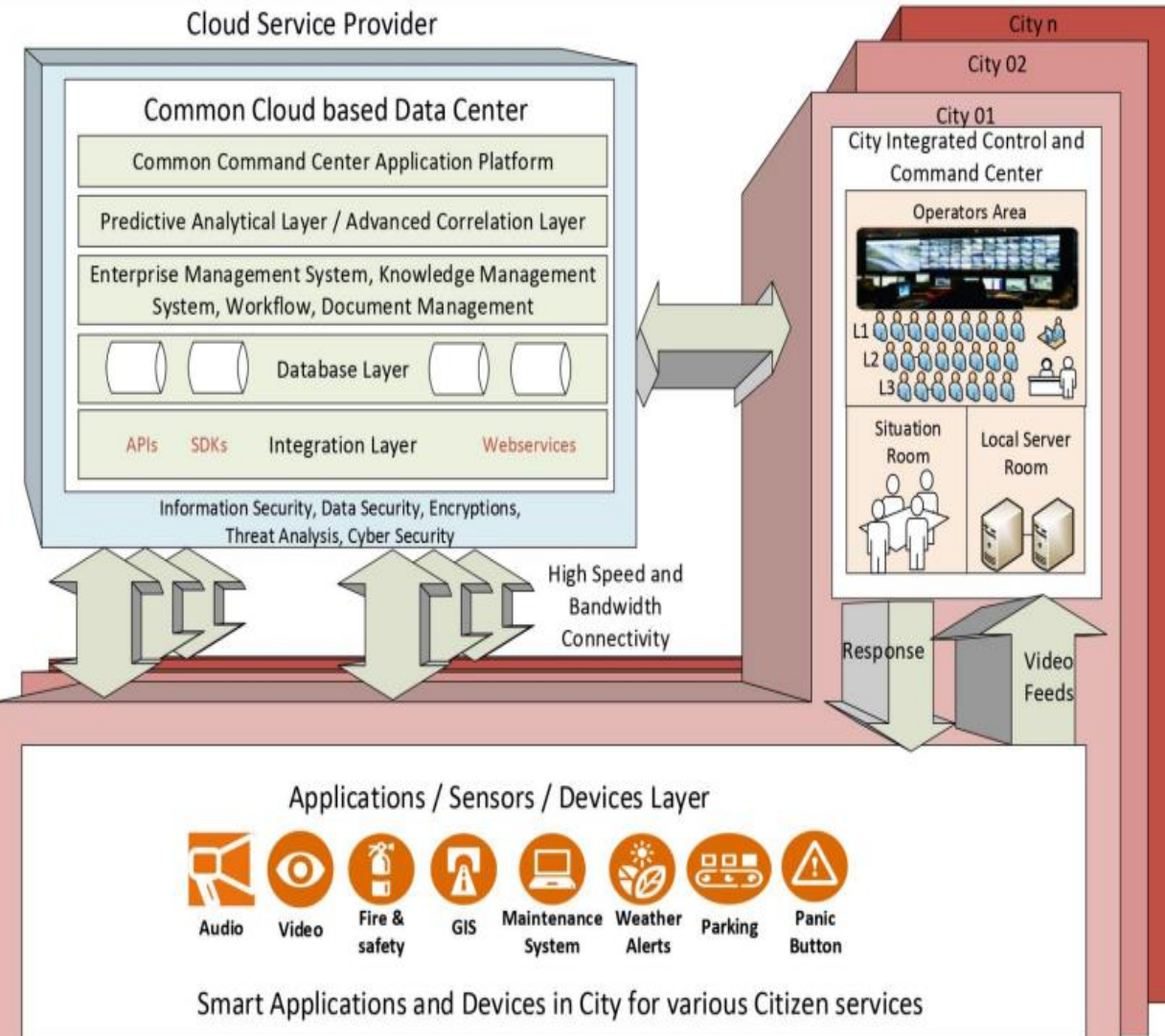
# INTEROPERABLE CRIMINAL JUSTICE



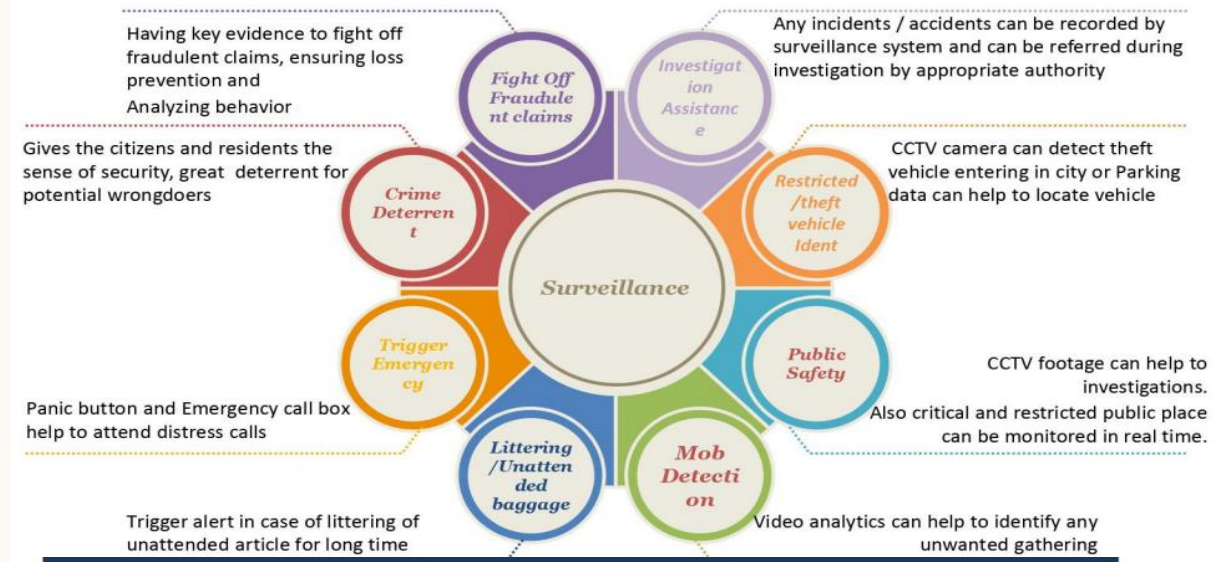


# SMART CITY

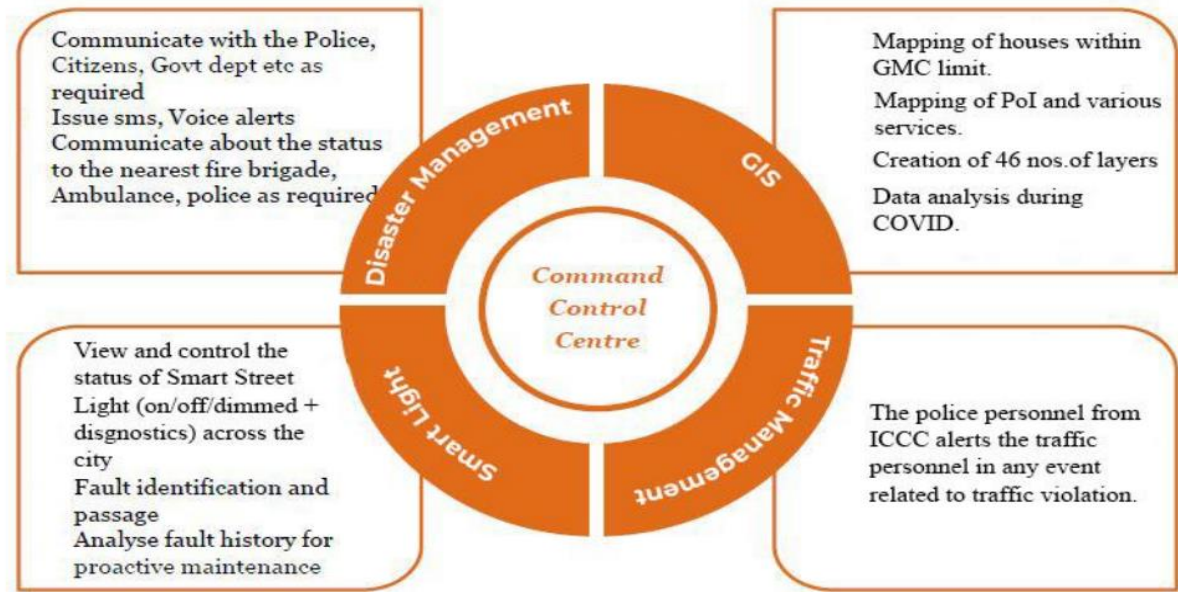
## Solution Design - Integrated Command & Control Centre, Gangtok



## Citizen Centric use cases for Surveillance



## Use cases of Command Control Centre





# National eVidhan Application

Digital Legislatures

One Nation One Application

## Ease of use

Mobile friendly with one-touch access.



## Eco-Friendly

Go Green initiative with paper-less legislature



## Digital House

Digitization of house proceedings with live web-casting



## Ocean of Information

Authentic knowledge pool for Members, Citizens & Researchers





# eCabinet

<https://ecabinet.nic.in>

## Unique Features

Security (Push & Pull)

Confidentiality (Restricted access)

Keep All Informed (Share Information)

Effective follow-up for good governance

Less Paper System

Integrated with Bharat VC

Easy to Use - To be integrated with eOffice

Bilingual, Self Configurable

DR Setup for Business Continuity

A solution to bring cabinet meetings online, Automate workflow, Facilitate virtual meetings & Make them paper free

## KEY COMPONENT



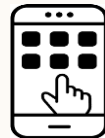
### Gopan Portal

Anytime, Anywhere  
Availability of Information for Cabinet Ministers, Secretaries & Departments



### eMantrimandal Portal

Restricted Access to Gopan Department for Cabinet related Confidential matters



Meeting Day Management System  
Solution to manage the Meeting on Meeting Day. Restricted access to Gopan Officers



### Waiting Lounge Information System

Waiting Lounge management system for Secretaries/officers



Implementation Monitoring System

## Success Indicators

- ✓ Launched in Jan 2020 by Chief Minister, Uttarakhand as part of Cabinet meet.
- ✓ 90+ Cabinet meetings conducted using eCabinet-Till Date
- ✓ Paper free, an Average Saving of 1 Tree saved for 3 meets
- ✓ Virtual meetings during the Covid19 Period, with Ministers from remote locations & Tablets.
- ✓ Implemented in Uttarakhand, Uttar Pradesh and Arunachal Pradesh and in progress in Sikkim, Karnataka, Maharashtra and Orisa
- ✓ Effective follow-up

## Impacts & Benefits

- ❖ Green Secretariat..... Conserve Environment
- ❖ Last Minutes Run for Providing information to Stakeholders Changed to Online availability of Information to all
- ❖ Effective Follow-up on timely Implementation of Cabinet Decisions
- ❖ Resulting in Good Governance, with use of technology
- ❖ Digital Institutional Memory

*In Service Since 2019*

Implemented in 3 States

Ver 2.0 is Ready for launch

**THANK YOU**