



**Regional Conference on advancing Rule of Law through Technology: Challenges &  
Opportunities - SESSION 5**  
**1st February 2026, Ranchi, Jharkhand**

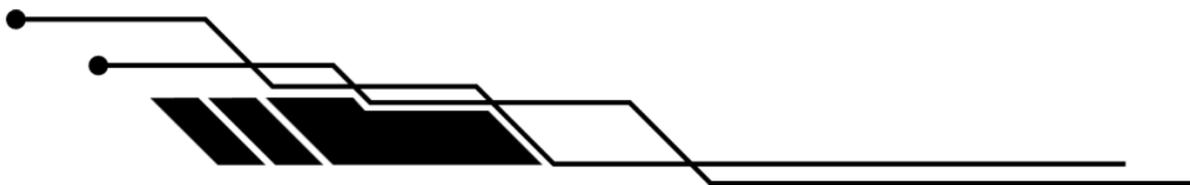
# **IMPROVING QUALITY OF ADJUDICATION: EMERGING AND FUTURE TECHNOLOGIES**

Hon'ble Mr. Justice A. Muhamed Mustaque  
Chief Justice, High Court of Sikkim



## Outline of Discussion

- Exploring use of Artificial Intelligence (AI) in Judicial Decision Making
- Blockchain Technology for secure record management
- Recent advances in technology and potential use cases - with special reference to Kerala's Tech Leap and Supreme Court Initiatives



# The Algorithm on the Bench: Rethinking Judicial Future



## Why Integrating AI and Technology in the Judiciary?

- Mounting case backlogs and docket explosion
- Lack of Accessibility
- Time consuming procedural delays
- Justice in the digital age demands not only wisdom but precision, speed, and transparency—technology is no longer an aid, but a cornerstone of fair and effective adjudication.

*Integrating AI into the judiciary is not about automating justice, but about amplifying its reach, and precision.*

# THE REALM OF AI IN JUDICIARY

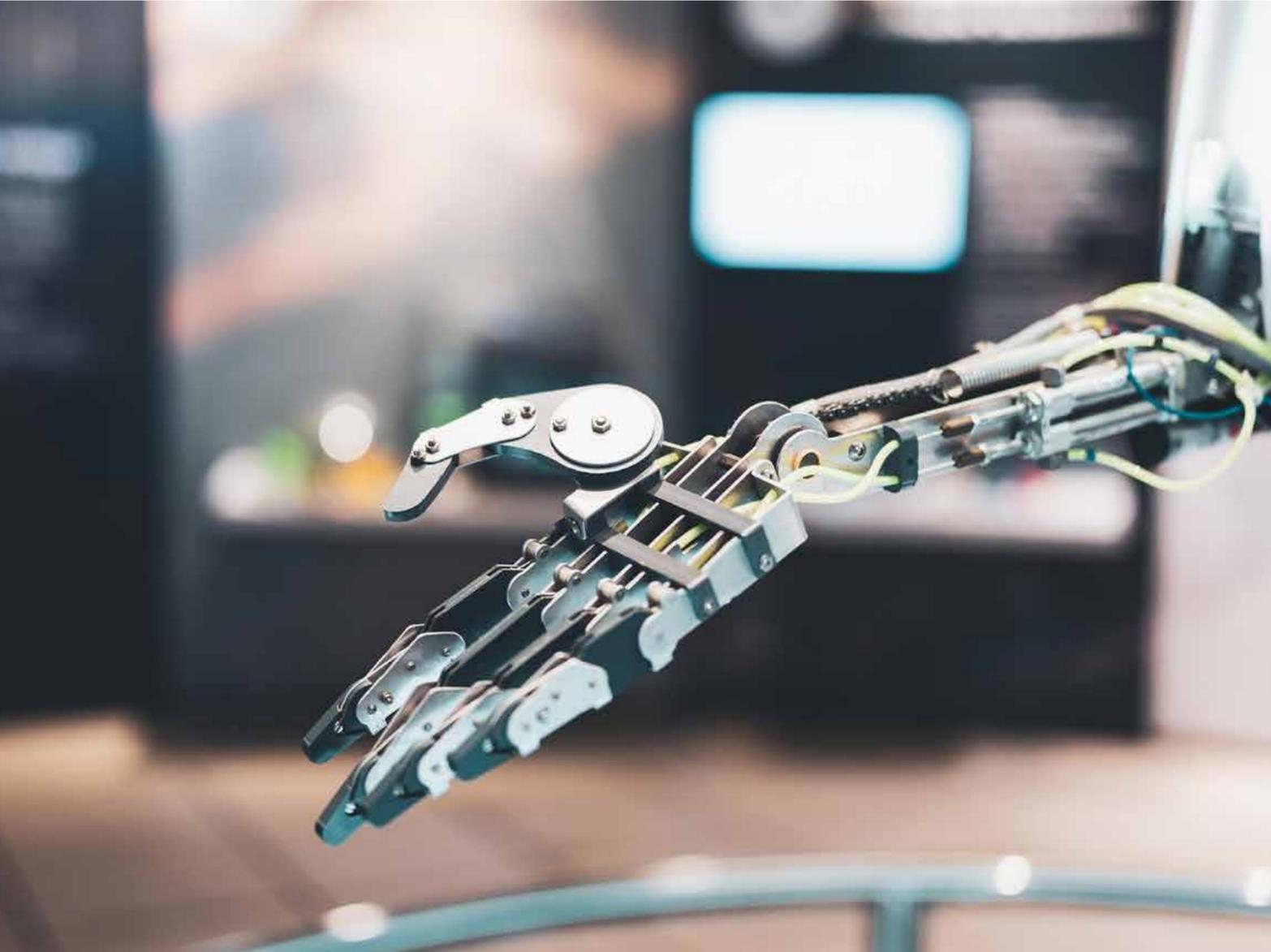
1. Judicial Functions

2. Judicial Administrative Functions

3. Purely Administrative Functions



# AI IN JUDICIARY



- Automated Case Management
- AI for User Assistance and Chatbots
- AI for Predictive Analysis in Case Outcomes
- AI in Legal Research and Documentation
- Virtual courtrooms
- AI-Assisted Filing and Court Procedures
- AI-Based Transcription and Translation
- Case Prioritization and Scheduling
- Evidence Management and Analysis
- Cybersecurity and Document Authentication
- AI-Driven Data Analytics and Performance Monitoring

# Building the Future: Kerala's Model AI Policy in Action



- The policy establishes **guidelines for the responsible use of Artificial Intelligence (AI)** within the district judiciary.
- It aims to ensure AI tools are used **only as assistive aids, not as substitutes for judicial reasoning or decision-making.**
- Emphasizes **human supervision, transparency, fairness, confidentiality, and accountability** in all judicial functions involving AI.
- Applies to **all members of the District Judiciary in Kerala** and their supporting staff.
- Covers all forms of AI, including **generative AI tools** (like Chat GPT, Gemini, Copilot, Deepseek) and **AI-enabled databases** used for case law or statutory research.
- Breach of the policy may lead to **disciplinary action** under existing service rules.

## Guiding Principles

- **Core values:** Transparency, fairness, accountability, and confidentiality must not be compromised.
- **Cloud-based tools caution:** Generative AI tools like ChatGPT and Deepseek may expose sensitive data; **use of unapproved tools is prohibited.**
- **Verification:** All outputs (case law, summaries, translations) from approved tools must be **carefully verified by judges.**
- **Permitted uses:** Routine administrative tasks (e.g., scheduling, document management) — **only under human supervision.**
- **Prohibited uses:**
  - AI tools **cannot be used** to determine findings, orders, or judgments.
  - They must **not substitute human legal reasoning.**
- **Audit requirement:** Courts must maintain records of all instances where AI tools are used, including verification procedures.
- **Training:** Mandatory participation in **AI ethics and technical training** organized by the Judicial Academy or High Court.
- **Error reporting:** Any inaccuracies from AI outputs must be promptly reported to the Principal District Judge and IT Department for review.



# White Paper on AI and the Judiciary — SUPREME COURT OF INDIA

The Supreme Court's *White Paper on AI and the Judiciary* (by the Centre for Research and Planning) sets out a **framework for responsible, ethical adoption of artificial intelligence** within judicial institutions. It focuses on using AI to improve court efficiency and administration while safeguarding judicial integrity, human judgment, fundamental rights, and due process.

## Key Risks Identified

- 1. Hallucinations & Inaccuracies**  
AI tools can produce false or fabricated legal content such as non-existent case law and incorrect citations, undermining legal reliability.
- 2. Loss of Human Judgment**  
Over Reliance on automated outputs may weaken the exercise of judicial discretion and accountability central to justice.
- 3. Algorithmic Bias**  
AI trained on historical data can replicate or amplify social biases, risking unfair outcomes if used in high-stakes contexts.
- 4. Privacy & Security**  
Uploading confidential court data to public or unsecured AI platforms raises serious privacy and data-breach concerns.
- 5. Deepfakes & Evidence Manipulation**  
Emerging synthetic media capabilities pose threats to evidentiary integrity if unchecked.



## Core Ethical Principles

- **Human-in-the-Loop:** Judges retain **ultimate authority**; AI assists, but does not decide.
- **Accuracy and Verification:** All AI outputs must be **checked by humans** before use.
- **Confidentiality & Data Protection:** Sensitive information must be guarded with **secure systems**.
- **Fairness:** Systems must avoid **discrimination or disadvantage** to any group.

## Institutional Safeguards for Ethical Use of AI in Judiciary

- **AI Ethics Committees:** Dedicated oversight bodies to regulate, review, and monitor AI use; ensure transparency, fairness, accountability, data protection, and human control, with technical expertise included.
- **In-House AI Systems:** Preference for secure, court-controlled AI tools to protect confidential and sensitive judicial data and prevent unauthorised access or data misuse.
- **Ethical Use of AI Policy:** Clear institutional policy defining scope, responsibilities, permissible uses, safeguards, penalties for misuse, and mechanisms for periodic review.
- **Disclosure & Audit Trails:** Mandatory transparency in AI use, including citation of tools used, documentation of tasks performed, and records of human oversight.
- **Training & AI Literacy:** Continuous education for judges and court staff on AI capabilities, risks, ethical use, and limitations to ensure responsible adoption.

Guidelines for the Responsible Use of AI in Judicial Institutions

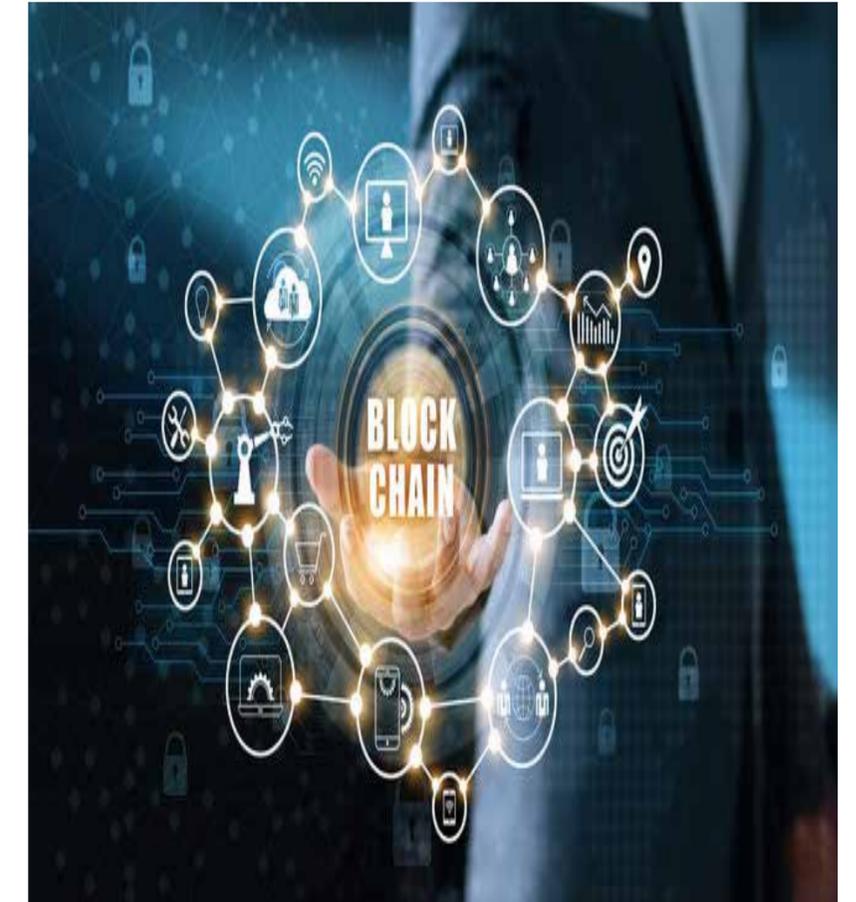
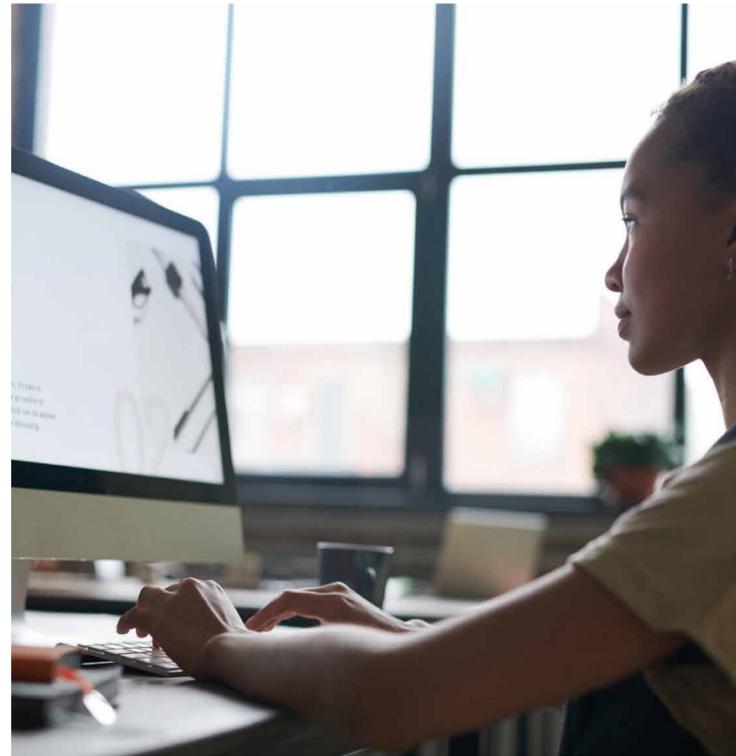
Guidelines for the Responsible Use of AI for Law Clerks

Suggestive Guidelines for the Responsible Use of AI for Lawyers

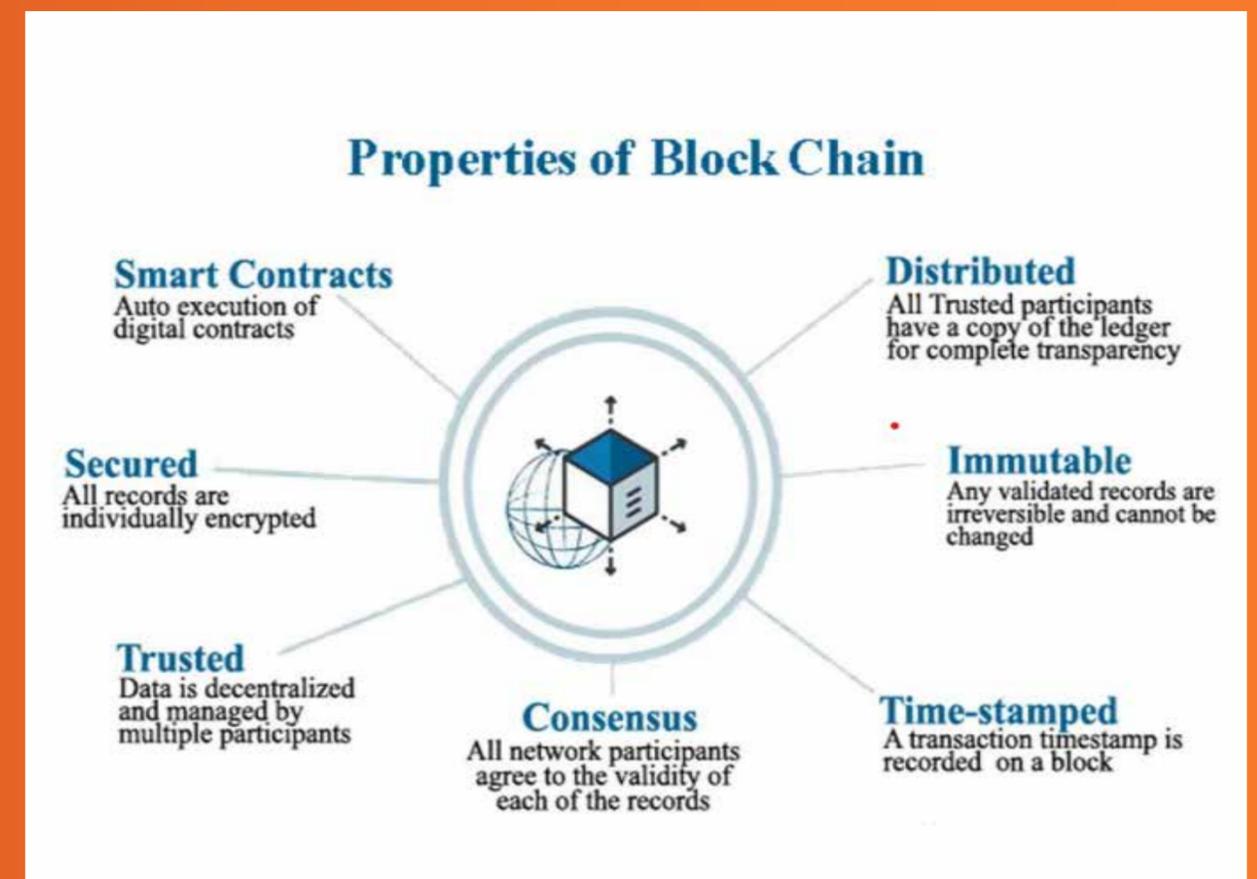
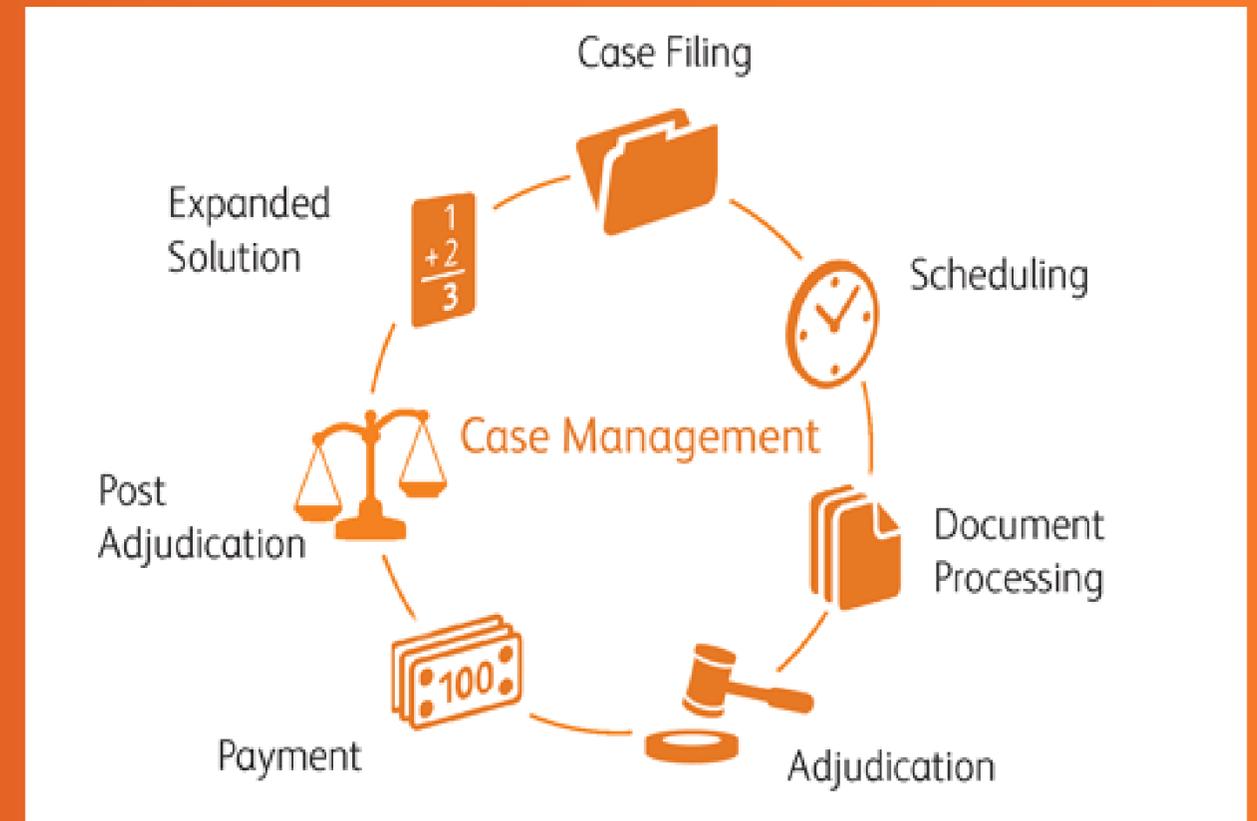


# BLOCK CHAIN TECHNOLOGY IN JUDICIARY

- Blockchain is a decentralized distributed database (ledger) of immutable records accessed by various applications over the network.
- The Blockchain network consists of nodes (Computer owned by the stakeholder) that are geographically distributed and each node maintains the same copy of the ledger.
- This system integrates with e-Courts to reduce fraud in document management and aims to eventually support real-time case tracking.

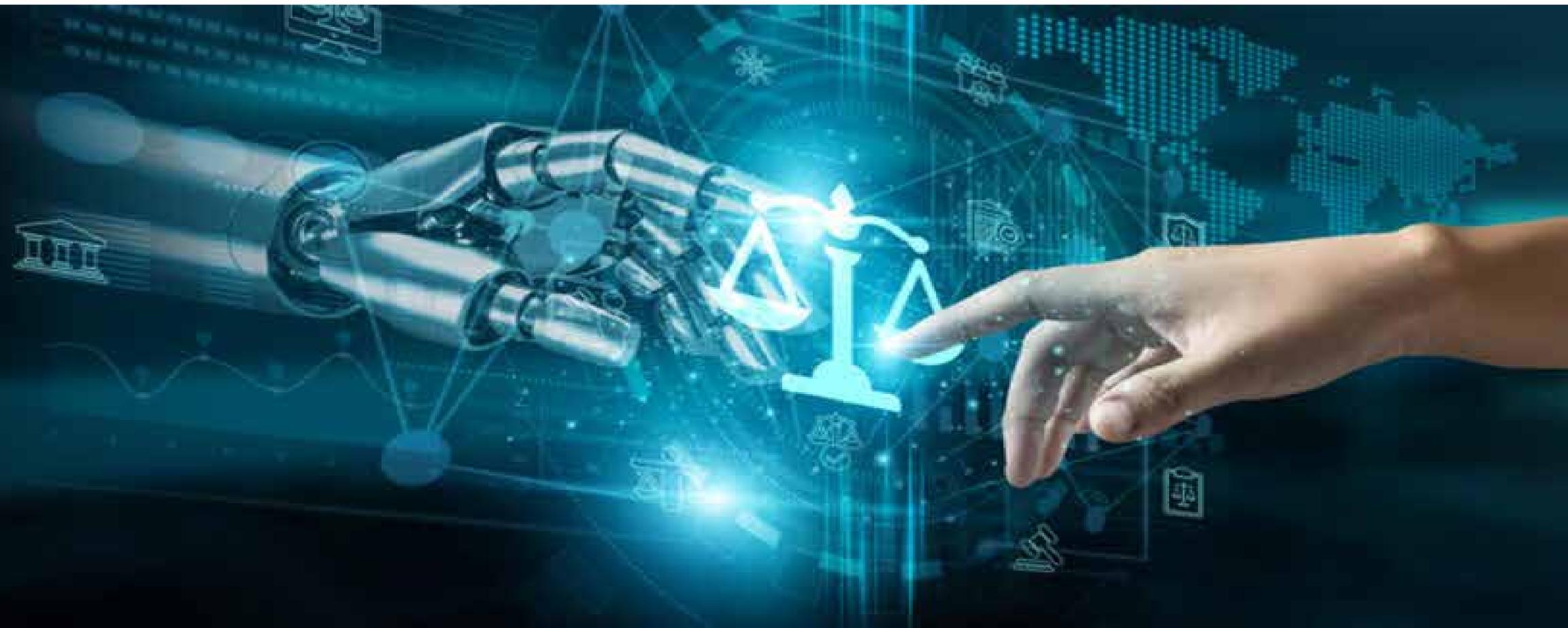


- Blockchain operates in the judiciary by providing a decentralized, tamper-proof ledger system that enhances transparency, security, and efficiency in judicial processes.
- It secures court records, evidence, and judicial orders in a way that prevents tampering and corruption.
- Smart contracts on the blockchain can automate routine tasks like scheduling hearing, deadline management and handling judicial deposits.
- Real-time case progress tracking through blockchain empowers litigants and courts with transparent monitoring.
- Blockchain also secures digital evidence, certificates, forensic reports, and legal documents, ensuring authenticity and reducing the risk of manipulation.



# Case Management based on Blockchain Technology

- Filing management with timeline → Fixing task based on variables
- Case management dynamics → Task adjustments on contingencies
- Impact analysis → Based on tasks



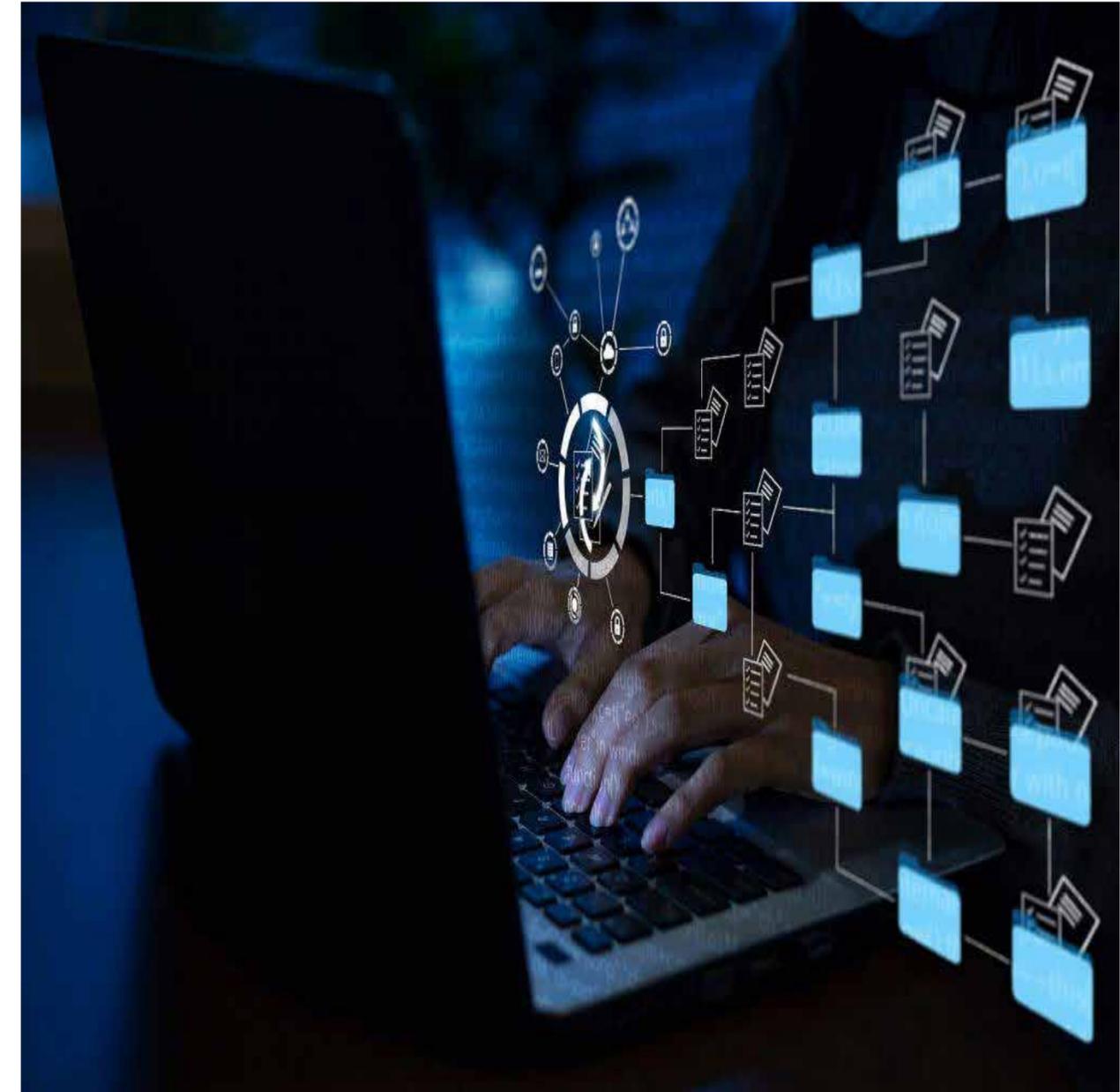
# Intelligent & Automated Case Management using AI-High Court

- **Prioritization of cases**
- **Intelligent case listing** - case listing was traditionally dominated by lawyers but now AI-powered intelligent and automated case listing has created Certainty
- **Setting Dynamics in Management on Intelligent Parameters**
  - High Priority Cases
  - Medium Priority Cases
  - Normal Priority Cases



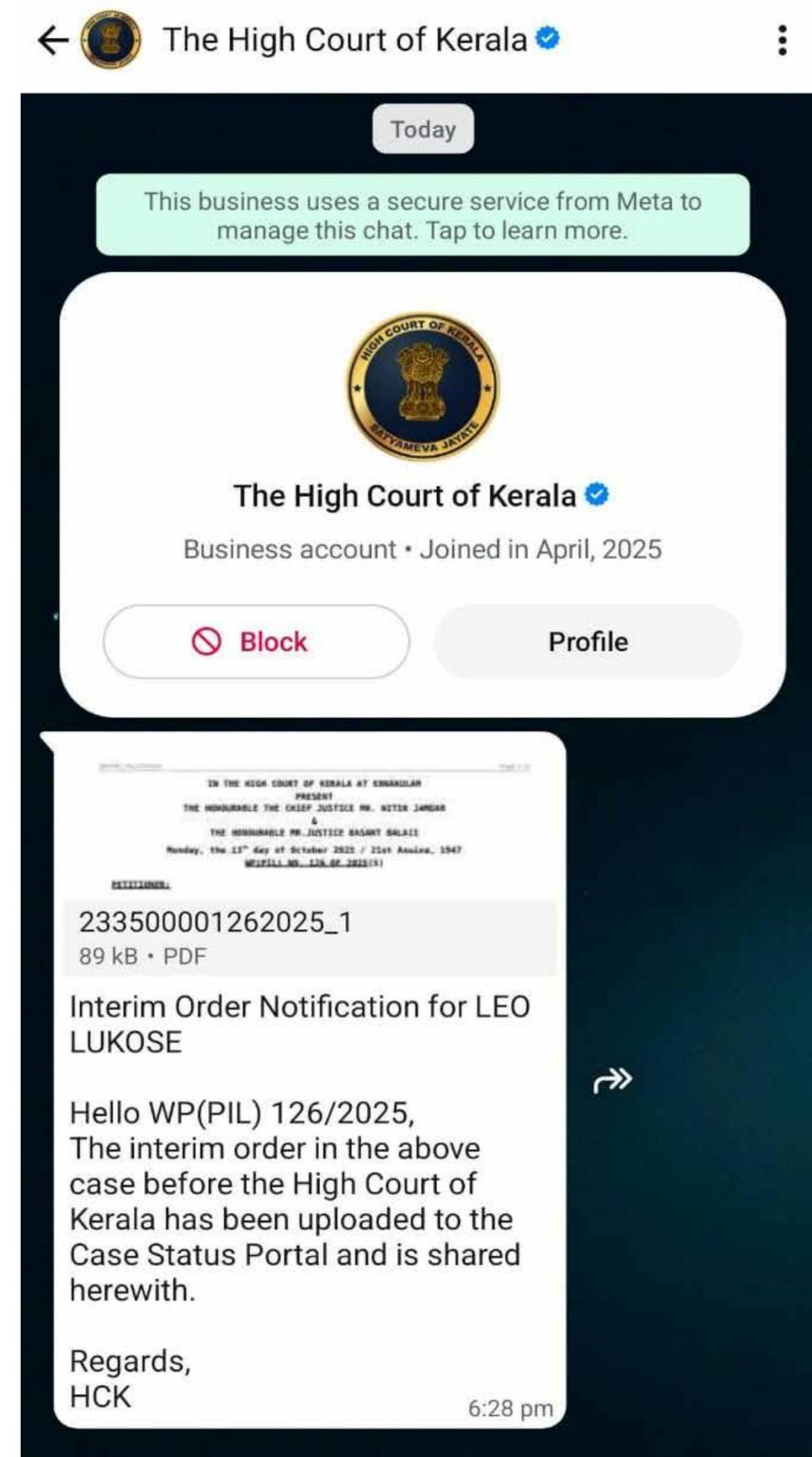
# Management: Prioritization of Cases

- Oldest matters first approach
- Time-sensitive and constitutional cases
- ADR-friendly disputes identified early
- Use of NJDG statistics for informed prioritization



# WhatsApp INTEGRATION WITH CASE MANAGEMENT SYSTEM

- WhatsApp integration with the judicial case management system enables real-time communication and instant updates to litigants, lawyers and staff.
- Users receive automated messages on case status, hearing dates, and procedural actions directly on their registered WhatsApp numbers.
- This enhances accessibility, transparency, and efficiency by ensuring timely intimation without the need for physical follow-ups.

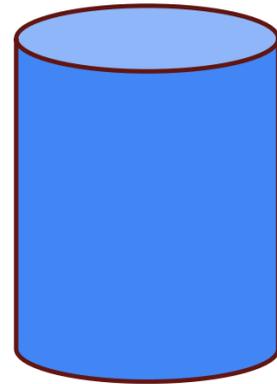




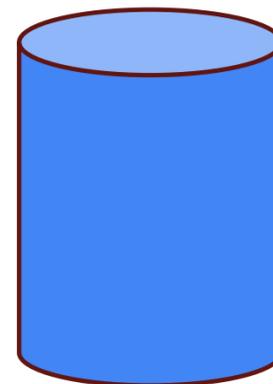
# MACHINE SCRUTINY OF CASE FILES

- Machine scrutiny uses specialized AI tools to scan case files at the time of e-filing. It checks for mandatory details, missing information, or filing defects such as incorrect documents, incomplete forms, or procedural errors.
- The AI flags procedural defects in the submissions, helping maintain the technical standards required for registration and listing of cases.
- Reduces manual workload, expedites urgent listings, increases accuracy in the registration process, and sets a benchmark for the responsible and ethical use of AI in the Indian judiciary.

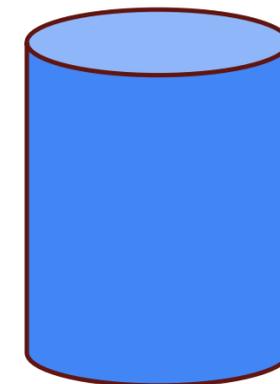
# Transformation in District Judiciary using AI - THREE VERTICALS



National Perspective



Court Perspective



Judge Perspective

# Impact Assessment



# Three Parallels

## Performance evaluation Process

### Impact based

Impact of each task done in each type of case in a court differentiated as (a) national (b) social (c) commercial and (d) individual



### Task Differentiated

Each task to be quantified and measured



### Arrear balanced

Performance based on arrear management. All tasks which reduces arrears will be quantified as positive points and all acts which tend to increase arrears will be quantified as negative points

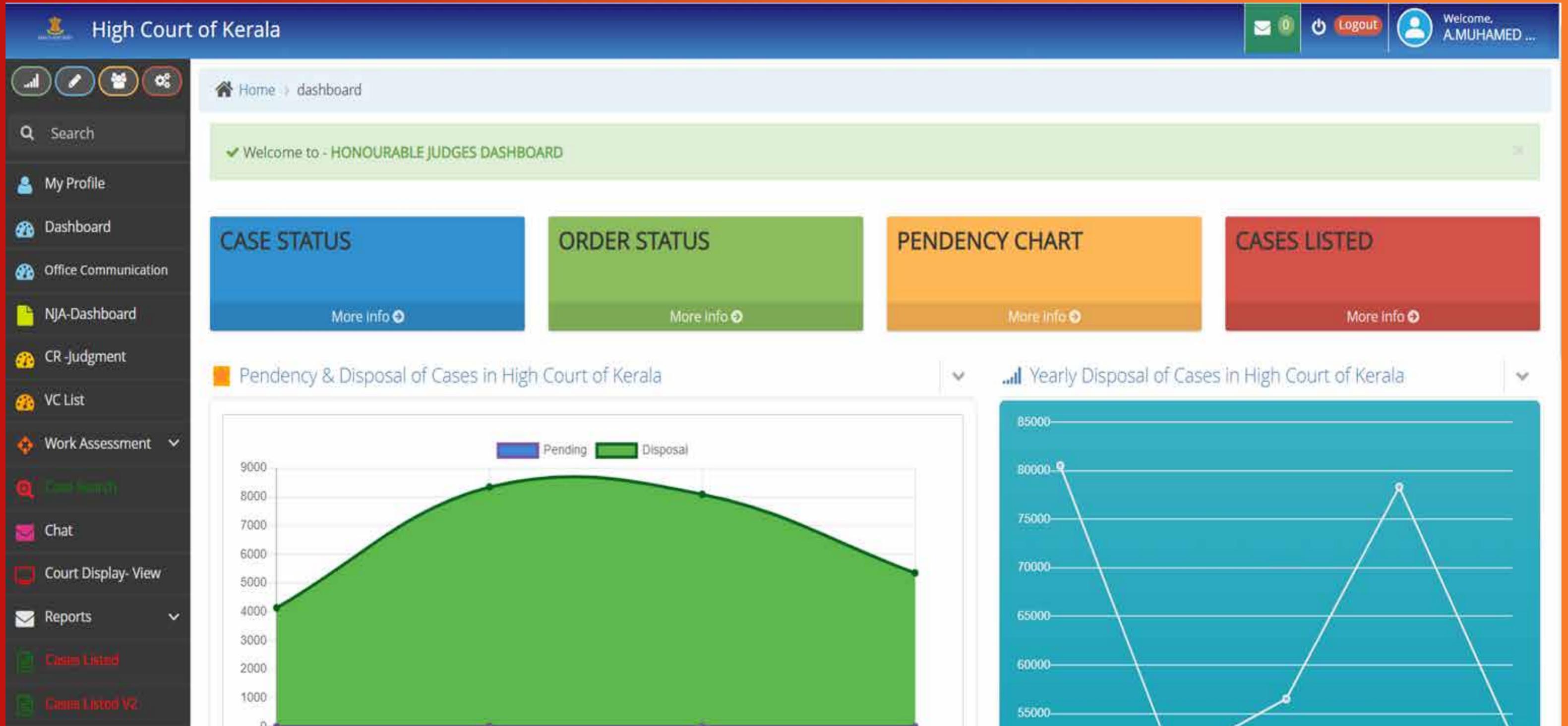
# Digital Courts Eliminating Territorial Barriers

Digital Courts are future courts where digital services would be the norm. It would be an ever evolving and open technology infrastructure that enables the creation of solutions specifically catered to the diverse and unique needs of lawyers, citizens, government institutions, companies, court employees and judges.

- Identification of Unequal distribution of works
- Equal workload distribution, including trials transcending territorial jurisdiction
- Integrating video conferencing as an essential tool for trials



# Judge's Dashboard - <https://ecourt.keralacourts.in/digicourt/>



# New Judge's Dashboard For Live Court- <https://highcourt.keralacourts.in/>

The screenshot shows the 'Causelist' page for the High Court of Kerala. The interface includes a search bar, a user profile for A.MUHAMED MUSTAQUE, and a sidebar with navigation options like Dashboard, Today's Causelist, Case Search, and Case File Generation. The main content area displays the court's name and the presiding judges: HONOURABLE MR. JUSTICE A.MUHAMED MUSTAQUE and HONOURABLE MR. JUSTICE HARISANKAR V. MENON. Below this, a table lists the cases for admission.

Sr.No.	Case Number	Main Parties	Pet./Res. Advocate's
<b>ADMISSION</b>			
1	OP (RC)/148/2025 ONLINE Remark: SNC (STEPS NOT TAKEN); I/O EXTENSION	BABY PAILY Vs MURALEEDHARAN M.K	
<b>ADMISSION</b>			
2	RCRev./147/2025 ONLINE	SATHI.C.K Vs	

# Case Documents including Interim Orders

Interim Order 21/07/2025

**Additional Files**

Interim Order 21/07/2025

Order Sheet

**Case Files**

Docket

Index

Synopsis

Statement Of Facts

Affidavit

Exhibit P1

Exhibit P2

Exhibit P3

Exhibit P4

Exhibit P 5

Exhibit P6

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OP (RC) No.148/2025 1 / 1

IN THE HIGH COURT OF KERALA AT ERNAKULAM  
PRESENT  
THE HONOURABLE MR. JUSTICE A.MUHAMED MUSTAQUE  
&  
THE HONOURABLE MR. JUSTICE JOHNSON JOHN  
Monday, the 21<sup>st</sup> day of July 2025 / 30th Ashadha, 1947

OP (RC) NO. 148 OF 2025

EP 42/2025, PRINCIPAL MUNSIFF COURT, ERNAKULAM IN RCA 30/2025, DISTRICT COURT & SESSIONS COURT/RENT CONTROL , APPELLATE AUTHORITY, ERNAKULAM

PETITIONER/JUDGMENT DEBTOR IN EP 42/2025 AND APPELLANT IN RCA 30/2025:

BABY PAILY, AGED 65 YEARS, W/O. PAILY, METHARA HOUSE, AYAMBILI KAVU ROAD, LABOUR JUNCTION, EROOR DESOM, NADAMA VILLAGE, KANAYANNUR TALUK, PIN - 682306

RESPONDENT/DECREE HOLDER IN EP 42/2025 AND RESPONDENT IN RCA 30/2025:

MURALEEDHARAN M.K S/O. LATE MADHAVI AMMA, MANCHERIL HOUSE, EROOR DESOM, NADAMA VILLAGE, KANAYANNUR TALUK, PIN - 682306

Op (rent control) praying inter alia that in the circumstances stated in the affidavit filed along with the OP (RC) the High Court be pleased to stay all further proceedings in EP No.42/2025 in RCP 39/2021 of the Principal Munsiff's Court Ernakulam till the hearing of RCA No.30/2025 pending before the Rent Control Appellate Authority, Ernakulam.

This petition coming on for admission upon perusing the petition and the affidavit filed in support of OP (RC) and upon hearing the arguments of M/S.P.JAYA & N.G.SUNIL Advocates for the petitioners the court passed the following:

Main Files | Order Files | View All Files

# Case file Annotation-with Highlighting, Text insertions etc.

The image shows a digital document viewer interface. At the top, there is a search bar with '3 of 48' and a zoom control set to 'Automatic Zoom'. Below this is a toolbar with icons for Select, Rectangle, Circle, Free Hand, Free Highlight, Text, Color, and Save. On the left side, a sidebar lists the document's contents: Docket, Index, Synopsis (Page 1), Statement Of Facts (Page 4), Affidavit (Page 14), Exhibit P1 (Page 15), Exhibit P2 (Page 19), Exhibit P3 (Page 20), Exhibit P4 (Page 28), Exhibit P 5 (Page 31), Exhibit P6 (Page 42), Exhibit P7 (Page 43), Exhibit P8 (Page 45), and Vakalatnama (Page 46). The main document area displays the 'Synopsis (Page-1)' with the following text:

BEFORE THE HON'BLE HIGH COURT OF KERALA  
ERNAKULAM  
OP (RC) No. / 2025

Baby Paily : Petitioner  
Vs.  
Muraleedharan M.K : Respondent

**SYNOPSIS**

The Petitioner is the tenant and respondent in RCP No.39/2021 of the Rent Control Court, Ernakulam and the respondent herein is the petitioner. The petitioner is running a tailoring shop in the petition schedule property, which is the only source of income for her livelihood. During Covid pandemic and following lock down the Petitioner's shop remained closed as per the government orders. Taking this as an opportunity the respondent locked the shop room in the absence of the Petitioner. The Petitioner's sewing machines,

Annotations include a red highlight under 'The Petitioner is the tenant and respondent in RCP No.39/2021' and a red text insertion 'test' next to 'The respondent herein is the petitioner'. The right sidebar shows a 'Notes : 5' panel with entries for Page 2 (a note about a true copy of e-court proceedings) and Page 3 (three notes labeled 'test3', 'test', and 'test1', 'test2'). At the bottom, there are buttons for 'Main Files', 'Order Files', and 'View All Files', along with icons for a list, AI, a clock, a pencil, and a refresh symbol.

# Facility for judge's personal notes-Handwritten or Text

The image shows a digital document viewer interface. The main document is titled "Synopsis (Page-1)" and is a legal filing from the Hon'ble High Court of Kerala, Ernakulam. It details a case between Baby Paily (Petitioner) and Muraleedharan M.K. (Respondent) regarding an OP (RC) No. / 2025. The synopsis text is partially highlighted in red. On the right side, there is a "Judge Note" panel with a "Hand" and "Type" input mode, a red highlighter icon, and a text area containing the handwritten number "155".

3 of 48

Automatic Zoom

Select Rectangle Circle Free Hand Free Highlight Text Copy Save

Synopsis (Page-1)

BEFORE THE HON'BLE HIGH COURT OF KERALA  
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Judge Note

Hand Type

155

# Customised AI Assistant for easy analysis of case bundle

The image displays a software interface for a legal AI assistant. On the left, a chat window titled "Chat with AI Law Bot - (Beta)" contains a blue button with the text "please provide case summary with trail court details". Below the button, a white text box shows the AI's response: "Based on the provided court document excerpts, it is clear that the petitioner in EP No.42/2025 of the Principal Munsiff Court Ernakulam filed an execution petition against the respondent/decrease holder in EP No.42/2025 of the Rent Control Appellate Authority, Ernakulam. The". A text input field at the bottom of the chat window contains the placeholder "Type your message...". A red disclaimer at the bottom left of the chat window reads: "Disclaimer: This data has been generated by AI based on the content of the provided PDF file. The output is derived from the file's readable content and DCR results. Accuracy may vary depending on the quality of the document. Please verify the information before use."

The right side of the interface is a document viewer. At the top, there is a toolbar with icons for "Select", "Rectangle", "Circle", "Free Hand", "Free Highlight", "Text", "Color", and "Save". Below the toolbar, a QR code is displayed. Underneath the QR code, the text "E-FILING NO - EF-HCK-2025-069346" is shown. The main body of the document contains the following text: "BEFORE THE HON'BLE HIGH COURT OF KERALA AT ERNAKULAM", "OP (RC) No ..... Of Year 2025", "IN", "EP 42/2025 ,PRINCIPAL MUNSIFF COURT, ERNAKULAM", "IN", "RCA 30/2025 ,DISTRICT COURT & SESSIONS COURT/RENT CONTROL APPELLATE AUTHORITY, ERNAKULAM", "42.00 BUILDING LEASE AND RENT CONTROL ACT", "42.00 BUILDING LEASE AND RENT CONTROL ACT". Below this, the text reads: "PETITIONER(S)/JUDGMENT DEBTOR IN EP 42/2025 AND APPELLANT IN RCA 30/2025", "1. BABY PAILY", "VS", "RESPONDENT(S)/DECREE HOLDER IN EP 42/2025 AND RESPONDENT IN RCA 30/2025", "1. MURALEEDHARAN M.K", "MEMORANDUM OF ORIGINAL PETITION (RENT CONTROL) FILED UNDER ARTICLE 227 OF THE CONSTITUTION OF INDIA". On the right side of the document viewer, there is a "Notes" panel with five entries: "Page 2" with a note "True copy of the e court proceedings of the Hon'ble Rent Control Appellate Authority dated 30.6.2025-42", "Page 3" with a note "test3", "Page 4" with a note "test", "Page 5" with a note "test1", and "Page 6" with a note "test2". At the bottom of the document viewer, there are buttons for "Main Files", "Order Files", and "View All Files", along with a "Show desktop" button.

# Access to case history

The screenshot displays a legal document viewer interface. A 'Case History' pop-up window is centered on the screen, containing the following information:

- Hearing Date: 21-07-2025**
- Proceedings: Adjourned.notice.stay
- Judicial Officer: HONOURABLE MR. JUSTICE A.MUHAMED MUSTAQUE, HONOURABLE MR. JUSTICE JOHNSON JOHN
- Next Date : 30-07-2025**

The background document is partially visible, showing a paragraph that begins with "following lock down the Petitioner's shop remained closed as per the government orders. Taking this as an opportunity the respondent locked the shop room in the absence of the Petitioner. The Petitioner's sewing machines,". The word "lock" is underlined in red. The interface includes a toolbar at the top with options like 'Automatic Zoom', 'Select', 'Rectangle', 'Circle', 'Free Hand', 'Free Highlight', 'Text', 'Color', and 'Save'. A sidebar on the left lists document sections such as 'Docket', 'Index', 'Synopsis (Page 1)', 'Statement Of Facts (Page 4)', and various 'Exhibit P' pages. A 'Notes' panel is visible on the right side of the document.

# 24/ 7 ON COURT PROJECT IN KOLLAM DISTRICT

- **People Centric Design - Section 138 NI Act matters**
- Access from anywhere, Guided experience
- Proactive communication
- Integration with courier services and iCops automates issuance of notice/ summons and warrants with real-time notice status tracking for all users.
- **Asynchronous Workflows** - it leverages technology to provide for different actors (litigants, lawyers, judges, and staff) to perform their roles independently and at different times.
- **Litigants, Lawyers, Judges, Court Staff, and Administrators** benefit from a fully digital ecosystem enabling **real-time alerts, remote access, and digital signing of documents.**
- **AI-driven filing, scrutiny, and case management** ensure error-free, paperless operations with automated notices, summons, and data analytics.
- The system promotes **transparency, efficiency, and accessibility**, reducing physical visits and accelerating the overall adjudication process.



# MODEL DIGITAL FAMILY COURT IN KOLLAM DISTRICT

Implemented under the e-Courts initiative to establish a paperless, Technology-enabled judicial system.

Aims to streamline family court procedures through complete digitization, automation, and remote accessibility.

## Exclusive E-Filing System (DCMS Portal):

- All filings (main petitions, counter, Vakalath, caveats) are made through <https://filing.keralacourts.in>.
- Online payment of court fees directly credited to the Treasury. Optional physical filing only in cases exempted under Rule 10 of the Electronic Filing Rules for Courts (Kerala), 2021.

## Digital Case Files

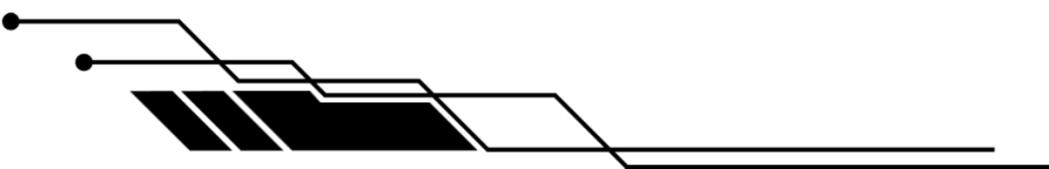
### Handling of Documents:

- Classification of documents: natively digital, physical, or digitally converted copies.
- Physical documents scanned, uploaded, and tracked; originals retained securely if required.
- Certified copies issued only through the online DCMS system

### Paperless & Automated Processes:

- Orders, notices, and judgments are **digitally generated, signed, and uploaded**.
- Witness depositions recorded via **voice-to-text transcription**.
- Digital tagging of exhibits and indexed metadata for easy retrieval.
- Trial Court Records transmitted digitally to appellate courts—**no physical record movement**.

**Support Infrastructure: E-sewa kendra and Helpdesk for users**



# Wayanad Paperless Courts Project: A Blueprint for Future Adjudication

- **India's First Fully Paperless Judicial District:** Kalpetta (Wayanad) courts operate end-to-end digitally—from e-filing to final judgments—eliminating physical records entirely.
- **AI-Assisted Judicial Functioning:** In-house AI tools generate structured case summaries, enable interactive case-specific queries, and allow digital annotations, improving judicial efficiency and decision quality.
- **Advanced Courtroom Technologies:** Voice-to-text transcription for evidence and dictation; secure digital signatures ensure legal validity, integrity, and authenticity of orders and judgments.
- **In-House, Secure & Reliable Systems:** Developed entirely by the Kerala High Court, ensuring data reliability, confidentiality, and freedom from third-party proprietary risks.
- **Access, Efficiency & Green Justice:** Real-time access to electronic records for all stakeholders, reduced costs and delays, and a significant step toward environmentally sustainable (“green”) jurisprudence.



# Justice on Fast-forward : ADALAT AI

Available at : [Adalat AI - End-to-End Justice Tech Stack](#)

An artificial intelligence-based speech-to-text tool, for recording witness statements and evidence.

They offer an “end-to-end justice tech stack” built to address bottlenecks in courtrooms — from transcription of hearings to case-flow management and document processing.

**Real-time transcription of court proceedings.**

**Case-flow management dashboard:** Integration with court case systems to streamline workflows, track hearings, manage documents.

**Security & data governance:** 100% data residency in India, no third-party APIs, client-side encryption, strict access controls – addressing sensitivity of legal data.  
**Document digitization & intelligence.**

## **SUCCESS STORY IN KERALA**

The Kerala High Court has mandated Adalat AI's in all district/trial courts of the state starting 1st November 2025.

As per data received from Adalat AI, a total of 1,836 judicial officers and court staff from Kerala have been onboarded to the platform.

To date, 2,998 hours (179,871 minutes) of proceedings have been recorded using the system, resulting in an estimated time saving of 7,495 hours (approximately 449,677 minutes).



## **Digital Innovations of the Supreme Court: Emerging AI-Driven Initiatives**

**SUPACE – AI-assisted legal research:** SUPACE (Supreme Court Portal for Assistance in Court Efficiency) is an AI-enabled research and workflow tool that helps judges and researchers extract key facts, relevant precedents, summaries, and chronologies from case files, significantly reducing manual review time.

**SUVAS – AI-based judicial translation:** SUVAS (Supreme Court Vidhik Anuvaad Software) uses machine-assisted AI translation to convert Supreme Court and High Court judgments from English into multiple Indian languages, greatly enhancing accessibility by making tens of thousands of judgments available in Hindi and other regional languages on official portals.

# Unified Digital Case Management enhancing judicial coordination : The road map of Supreme Court

The Supreme Court of India has launched a Unified Digital Case Management platform as a transformative step towards strengthening judicial coordination and enhancing the quality of adjudication.

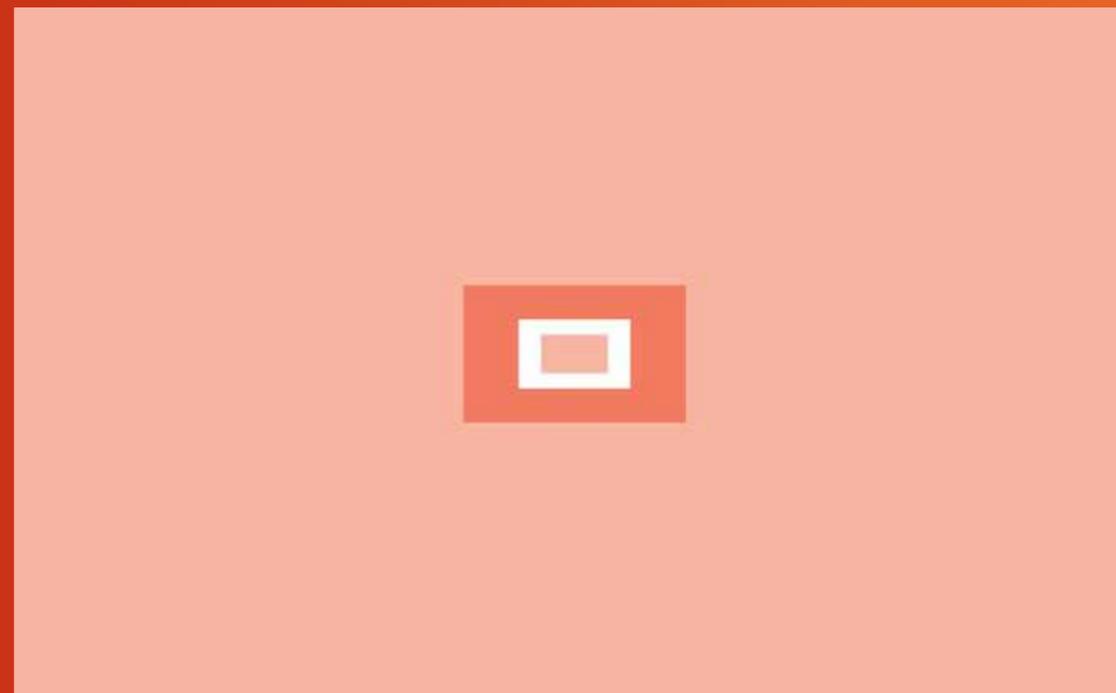
- **Integration:** Digital linking of Supreme Court and High Court case management systems to enable seamless data flow across jurisdictions.
- **Real-Time Updates:** Automatic reflection of case status changes based on orders passed by different courts, including stays, transfers, and remands
- **Consolidated Repository:** Creation of a unified, live database of pendency and procedural history accessible to all constitutional courts.
- **Judicial Dashboards:** Development of real-time dashboards for judges to monitor case movement, compliance, and implementation of directions.
- **AI-Assisted Support:** Use of AI tools to flag inconsistencies, delays, and non-compliance, supporting better case management without affecting adjudication.
- **Transparency & Access:** Controlled access for litigants and lawyers to track case progress, enhancing trust and reducing procedural uncertainty.

# RISK OF AI HALLUCINATIONS AND DEEP FAKES

AI hallucinations can lead to inaccurate legal research. Hence, rather than depending on external AI platforms, it is necessary to upgrade and integrate inbuilt judicial research engines - through institutional and private partnerships - ensure reliable and validated AI-assisted research.

Deepfakes have begun surfacing as **evidentiary and ethical challenges** before the courts, and Judiciary is increasingly alert to their **potential misuse in AI-assisted justice system**.

**Bangalore bench of ITAT - an order in Buckeye Trust vs PCIT-1 Bangalore (ITA No.1051/Bang/2024) in December 2024 - recalled as ChatGPT generated "fictitious case laws"**





# CHALLENGES OF ADOPTION OF AI IN JUDICIAL SYSTEM

## SHORT TERM CHALLENGES

- Ensuring transparency and explainability
- Preventing data and design biases that may perpetuate social inequalities
- Creating decision support systems that supplement and not supplant human judgment

## LONG TERM CHALLENGES

- Value lock-ins and stagnation in the law
- Constitutional role of judges and separation of powers



**THANK YOU**

