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Smart AI Legal Advisor

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Abstract: ***In today's world, legal systems are often difficult to navigate due to the complexity of legal language, time-consuming procedures, and high costs involved in seeking professional legal help. Legal documents are filled with technical jargon and structured in a way that makes them hard for non-lawyers to understand. Many individuals, especially those living in rural or underdeveloped areas, lack easy access to legal professionals, which can lead to confusion, delays, or even legal risks when dealing with contracts or disputes. Hiring lawyers can also be expensive, making legal support inaccessible for many people and small businesses. Additionally, individuals often sign contracts without fully understanding the terms, leading to potential disputes and financial losses.***

This project focuses on building an intelligent legal advisor platform that combines an AI assistant, a legal text simplifier, and a false clause detector. Designed to enhance legal understanding, the system uses natural language processing to simplify complex legal terms, detect potentially malicious contract clauses, and provide real-time assistance. The platform leverages advanced AI models and legal ontology for accurate analysis while highlighting modern NLP practices. This project aims to make legal language accessible and empower users with clarity, demonstrating the practical impact of AI in legal tech solutions.

Keywords: Legal Technology, Natural Language Processing, Legal Chatbot, Contract Analysis, Text Simplification, AI in Law, Legal Accessibility, Indian Civil Law

I. INTRODUCTION

Legal documents and procedures are often difficult for non-lawyers to understand due to complex terminology and structure. Many individuals, especially in developing countries, lack access to affordable legal advice. Recent advancements in AI and NLP have enabled the development of intelligent systems that can interpret and simplify legal texts. This project aims to bridge the gap between common users and legal information by building a Smart AI Legal Advisor that offers instant legal help, simplifies documents, and assists with contract interpretation. The focus is on civil law topics relevant in India, such as contracts, consumer protection, property disputes, and family matters.

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II. LITERARY SURVEY

Several AI applications have been developed for legal domains, including legal document retrieval systems, chatbots like DoNotPay, and document summarizers. However, these tools often focus on a single task, such as legal advice or document analysis. Systems like ROSS Intelligence and LexisNexis utilise AI to support lawyers, but they are not designed for the general public. Our approach integrates multiple capabilities—Q&A, scanning, and simplification—into one platform, making it user-friendly for non-experts. Furthermore, our focus on Indian civil law and regional accessibility sets it apart from many Western-focused solutions.

III. METHODOLOGY

A. System Overview

The *Smart AI Legal Advisor* is an integrated AI system designed to help users interact with legal content more easily. It includes three primary features: a chatbot for answering legal queries, a contract scanner for extracting and analysing legal clauses, and a text simplifier for translating complex legal language into simpler terms. The system aims to improve legal accessibility, especially for non-lawyers, by combining AI, NLP, and document processing technologies in a single platform.

B. System Architecture and Technologies

- Frontend: Developed using HTML, CSS, and JavaScript.
- Backend: Built with Python, the backend uses LangChain and Google Generative AI for chatbot responses. Tesseract OCR and OpenCV handle contract scanning. It connects all features and processes through APIs.

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- Database: The database consists of a curated dataset including the Indian Constitution and legal information sourced from various government portals. These documents are stored and searched using keyword-based methods to provide relevant legal information to users.

C. Key Modules and Algorithm Design

Legal Chatbot:

- Accepts user queries in natural language.
- Generates informative responses via Google Generative AI.

Contract Scanner:

- Scans uploaded legal documents using OCR.
- Detects key clauses with NLP models.
- Provides simplified clause summaries.

Legal Text Simplifier:

- Simplifies complex legal passages using fine-tuned transformer models.
- Enhances accessibility by rephrasing legal jargon into plain English.

D. System Requirements

1) Hardware: Minimum 16GB RAM, 500GB storage, Intel i3 or higher, internet connection.

2) Software: Python 3.8+ ,FastAPI ,Langchain ,VS Code.

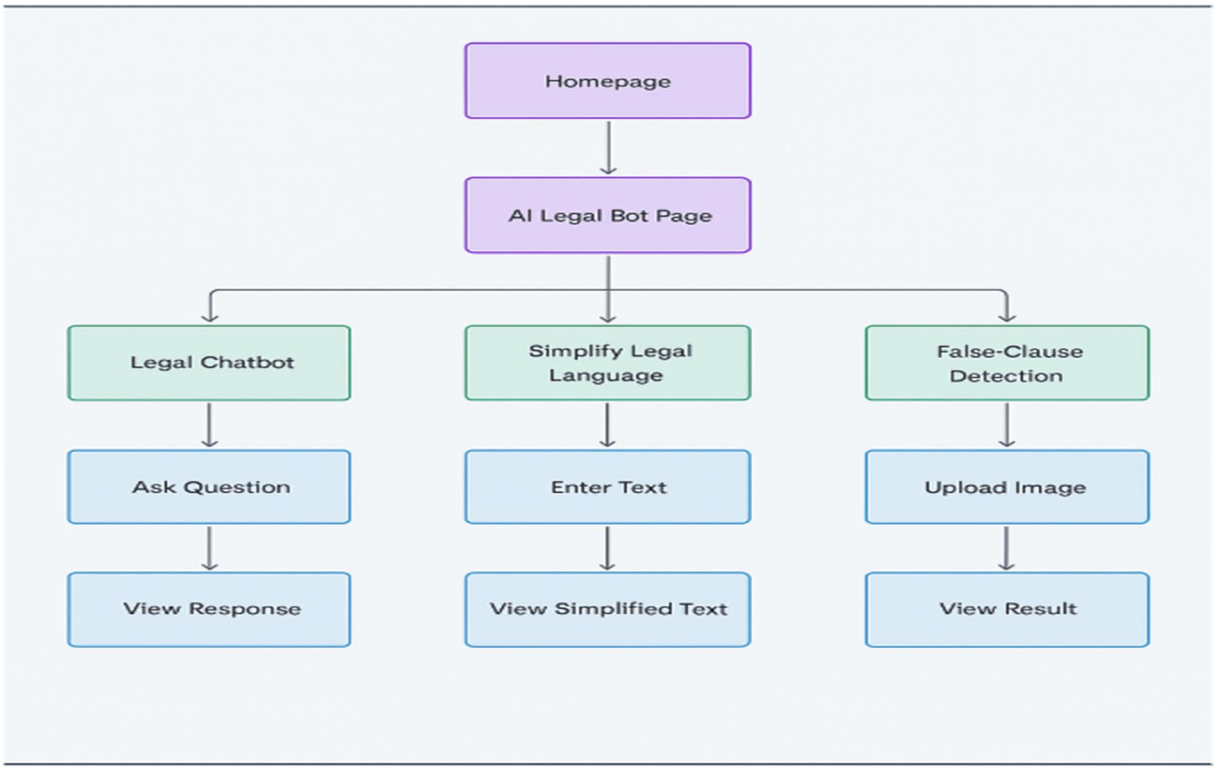


Figure 1: Architecture Diagram

IV. CONCLUSION

The *Smart AI Legal Advisor* demonstrates how modern artificial intelligence and natural language processing technologies can be effectively applied to bridge the gap between complex legal language and everyday users. By integrating a legal chatbot, contract scanner, and text simplifier into a single platform, the system provides comprehensive support for understanding and navigating Indian civil law.

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The chatbot offers quick, accurate, and context-aware legal answers by combining document retrieval and AI-generated responses, enabling users to get reliable information without needing a legal expert. The contract scanner helps demystify dense legal contracts by extracting and explaining key clauses in simple language, reducing the risk of misunderstandings. Meanwhile, the text simplifier further empowers users by converting complicated legal jargon into plain English, making legal documents more accessible.

This project highlights the potential of AI-powered legal tools to democratize access to legal knowledge, especially for individuals who may not have the resources to consult lawyers. Although the system currently focuses on Indian civil law and selected datasets, it can be extended to cover additional legal areas and integrate more advanced AI models to improve accuracy and usability.

Overall, the *Smart AI Legal Advisor* serves as a practical step toward making legal information transparent, understandable, and widely available, contributing to informed decision-making and better legal awareness among users.

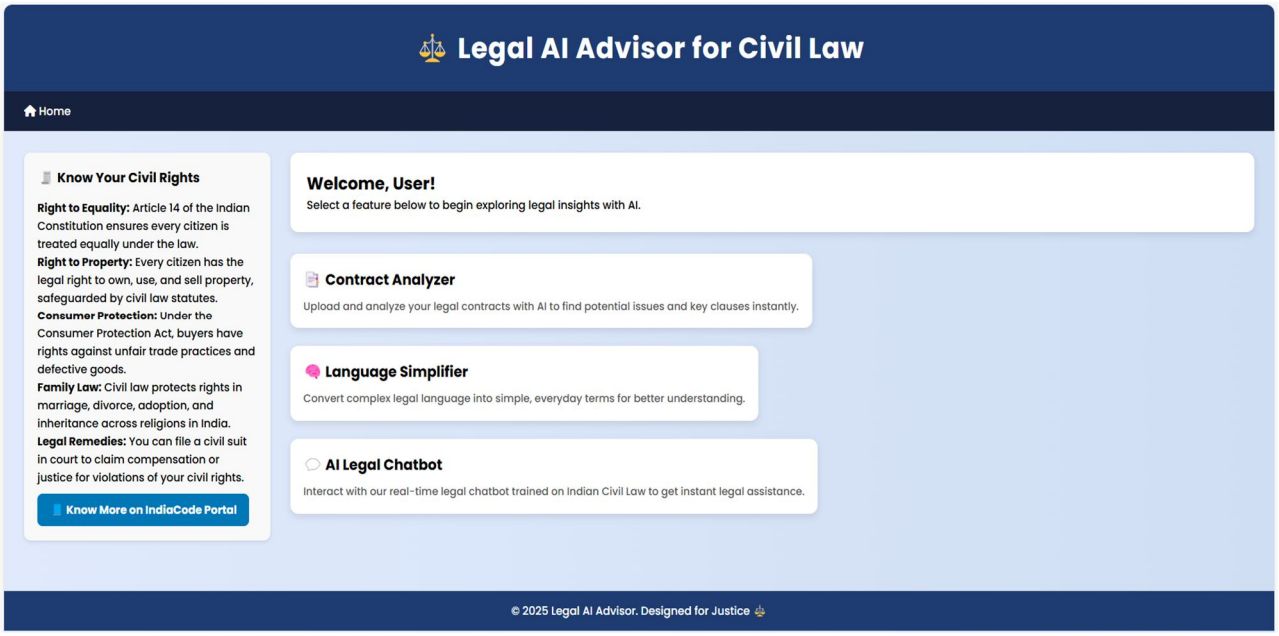


Figure 2: Home Page

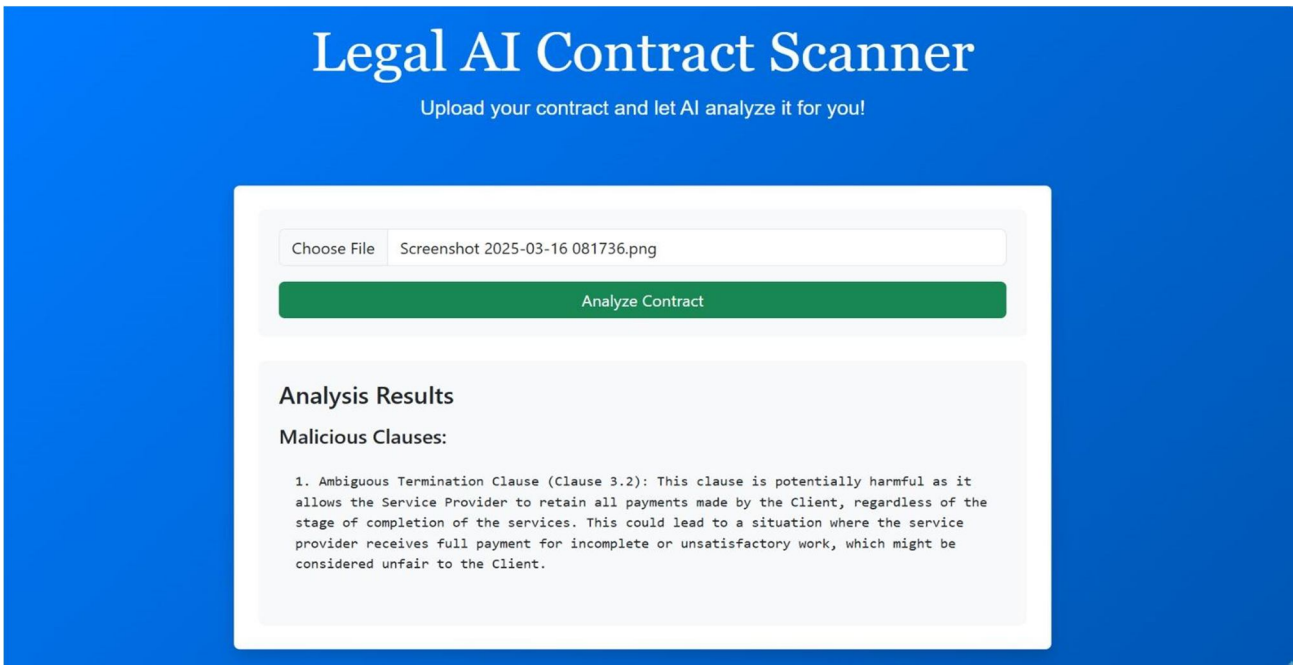


Figure 3: Legal AI Contract Scanner

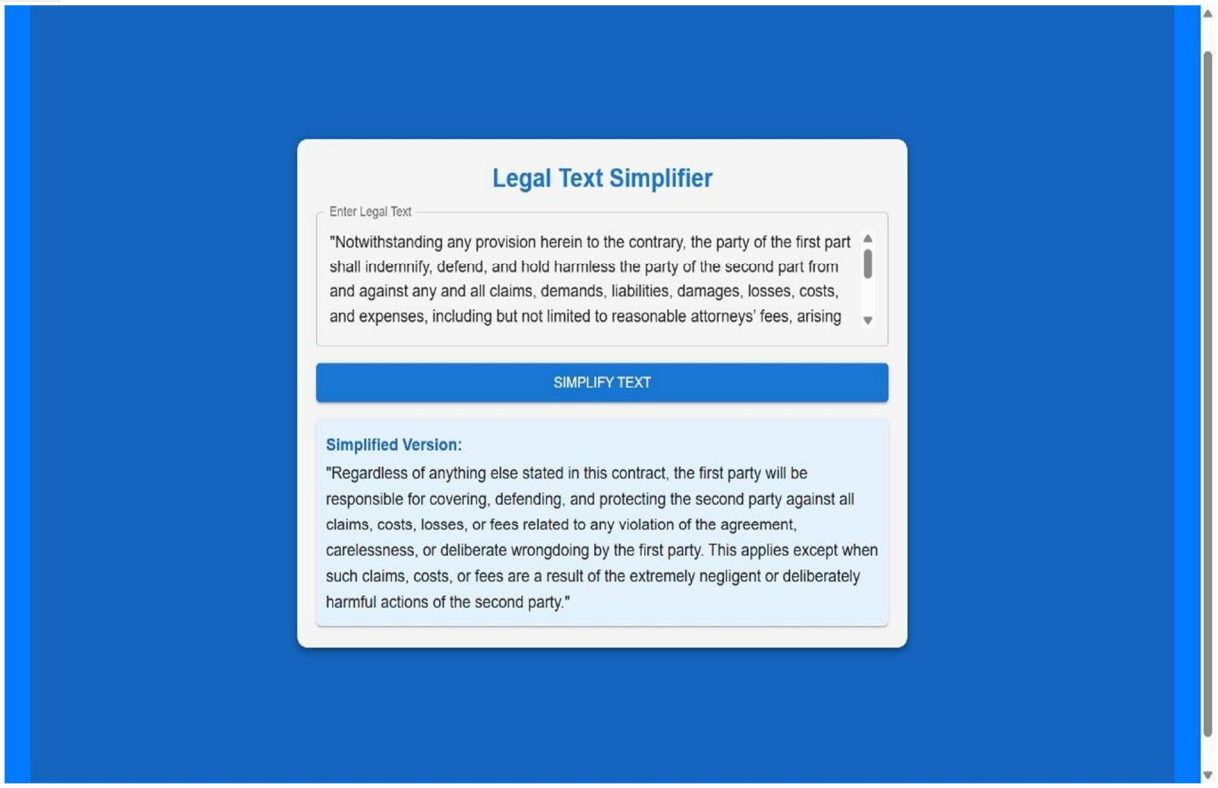


Figure 4: Legal Text Simplifier

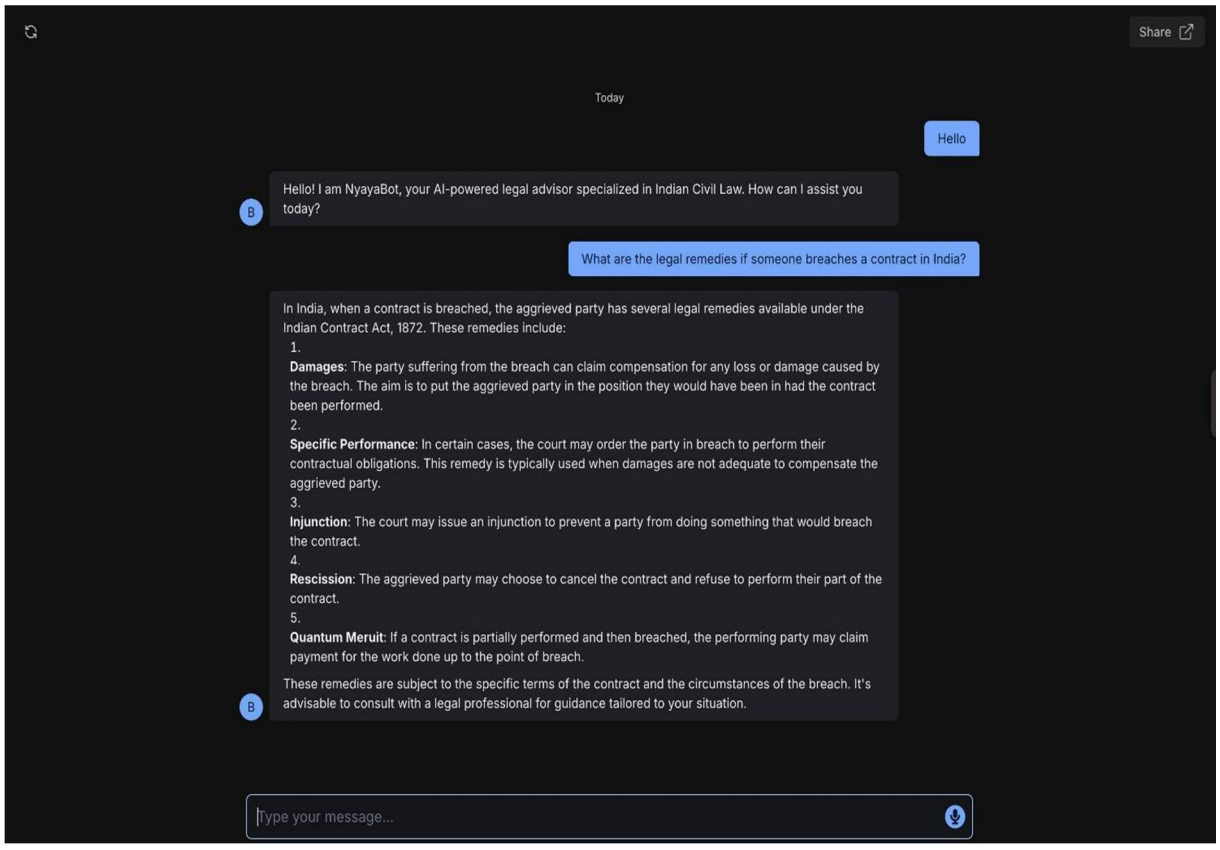


Figure 5: AI Legal Chatbot

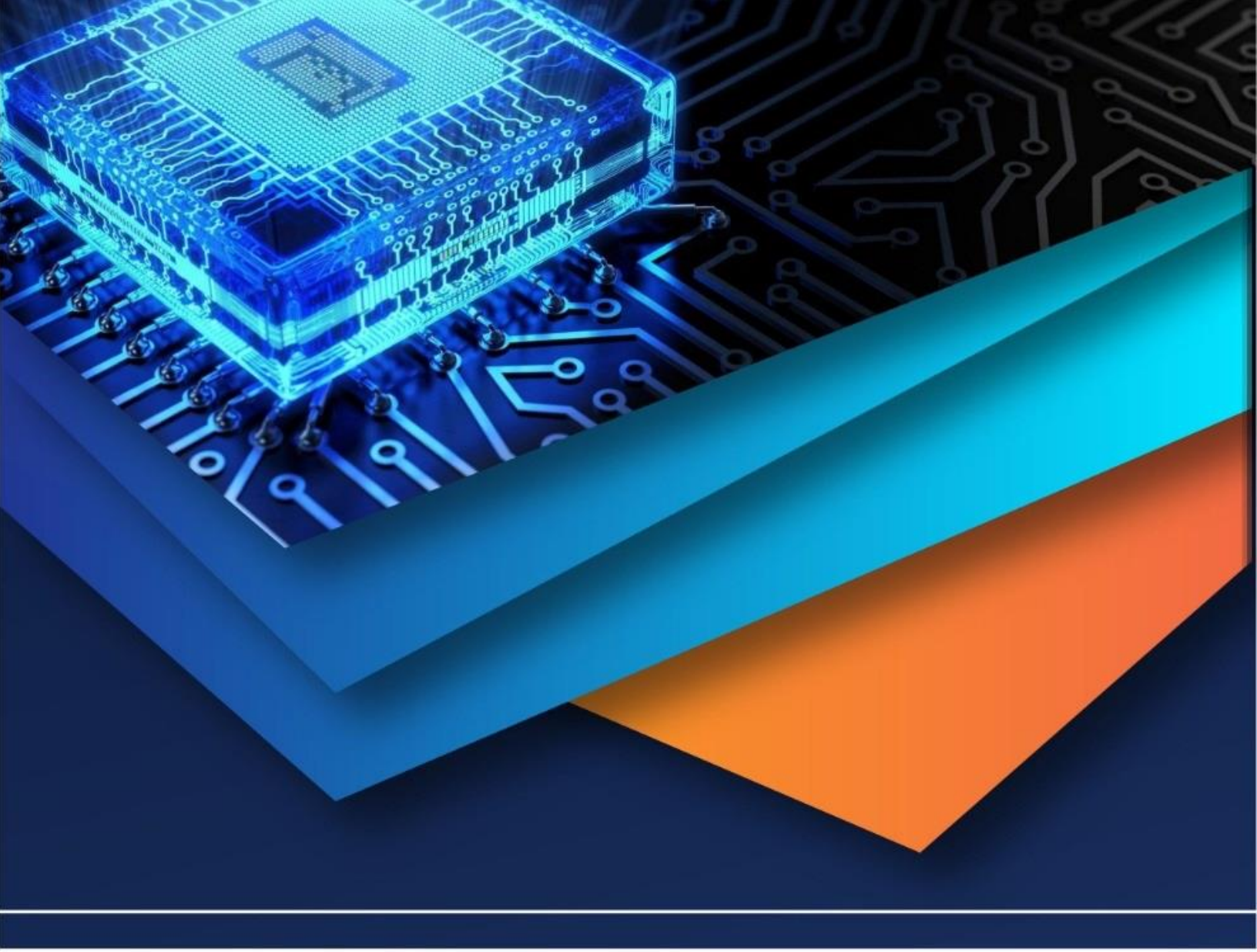
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Published: 2020
Overview: Introduces a family of BERT-based models pre-trained on legal corpora, enhancing performance on various legal NLP tasks.
Access: ACL Anthology | arXivarXiv+1ResearchGate+1RWS Content Solutions+4ACL Anthology+4ResearchGate+4

[2] CUAD: An Expert-Annotated NLP Dataset for Legal Contract Review
Authors: Dan Hendrycks, Collin Burns, Anya Chen, Spencer Ball
Published: 2021
Overview: Presents a dataset with over 13,000 annotations across 510 legal contracts, facilitating the development of models for contract clause detection.
Access: arXiv | GitHub RepositoryEECS Berkeley+4arXiv+4OpenReview+4Papers with Code+3atticus-project+3OpenReview+3

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Overview: Utilises AI to automate the review and approval of contracts, aiming to expedite the contract negotiation process for businesses.
Access: Lawgeex Website

[4] Lexi
Overview: An AI-powered legal assistant that provides answers to legal questions using a rule-based system, focusing on simplifying legal information for users.
Access: Lexi Website



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