



(<http://ipindia.nic.in/index.htm>)



(<http://ipindia.nic.in>)

## Patent Search

|                         |  |
|-------------------------|--|
| Invention Title         | AUTOMATION, INTELLIGENT, AND SMART SYSTEMS USING AI-BASED MODELING: METHODS, APPLICATIONS, AND RESEARCH ISSUES |
| Publication Number      | 23/2023  |
| Publication Date        | 09/06/2023   |
| Publication Type        | INA  |
| Application Number      | 202311031916   |
| Application Filing Date | 04/05/2023   |
| Priority Number         |  |
| Priority Country        |  |
| Priority Date           |  |
| Field Of Invention      | BIO-MEDICAL ENGINEERING  |
| Classification (IPC)    | A61B 051450, G06N 050200, G06N 200000, G09B 233000, G16H 502000  |

### Inventor

| Name                               | Address   | Country |
|------------------------------------|---|---------|
| PROF.(DR.)RAHUL KUMAR MISHRA       | DIRECTOR SCHOOL OF COMPUTER SCIENCE AND APPLICATIONS IFTM UNIVERSITY DELHI ROAD, MORADABAD Pin:244102 UTTAR PRADESH INDIA   | India   |
| Dr. R. Sivaraman                   | Associate Professor, Department of Mathematics Dwaraka Doss Goverdhan Doss Vaishnav College, Arumbakkam, Chennai Pin: 600106 Tamil Nadu India   | India   |
| Dr. Manoj Lipton                   | : Associate Professor Radharaman Institute of Technology and Science, Ratibad Bhopal Pin:462046 Madhya Pradesh India  | India   |
| Dr. Aditya Agarwal                 | Assistant Professor SRM Institute of Science and Technology, Delhi NCR Campus, Delhi Meerut Road, Sikri Kalan, Modinagar Ghaziabad Pin: 201204 Uttar Pradesh India                                    | India   |
| Mr. Deepak D J                     | Assistant Professor R V Institute of Technology and Management, Chaithanya Layout, 8th Phase, J. P. Nagar Bengaluru Pin:560076 Karnataka India  | India   |
| Mr. KATROTH BALAKRISHNA MARUTHIRAM | ASSISTANT PROFESSOR DEPARTMENT OF IT, JNTU UNIVERSITY HYDERABAD Pin: 500085 TELANGANA INDIA   | India   |
| Dr. G.Nagaraj                      | Associate Professor Sethu Institute of Technology, Pulloor, Kariapatti, Virudhunagar District. Pin:626115 Tamilnadu India   | India   |
| Dr.Sarat Kumar Swain               | PROFESSOR GITA AUTONOMOUS COLLEGE, BHUBANESWAR, AT/PO:MADANPUR, KHORDHA, PIN-752054 ODISHA INDIA  | India   |
| Dr.Belsam Jeba Ananth. M           | Associate Professor Department of Mechatronics Engineering, SRM Institute of Science and Technology, Faculty of Engineering and Technology, Kattankulathur Chengalpattu Pin: 603 203 Tamil Nadu India | India   |
| Mr. Annam Karthik                  | Assistant Professor Institute of Aeronautical Engineering, Dundigal, Hyderabad. Medchal Pin:500 043 Telangana India   | India   |
| Dr. Harikumar Pallathadka          | Director and Professor Manipur International University, Ghari, Imphal, Imphal West, Imphal Pin: 795140 Manipur India   | India   |

### Applicant

| Name                               | Address   | Country |
|------------------------------------|---|---------|
| PROF.(DR.)RAHUL KUMAR MISHRA       | DIRECTOR SCHOOL OF COMPUTER SCIENCE AND APPLICATIONS IFTM UNIVERSITY DELHI ROAD, MORADABAD Pin:244102 UTTAR PRADESH INDIA   | India   |
| Dr. R. Sivaraman                   | Associate Professor, Department of Mathematics Dwaraka Doss Goverdhan Doss Vaishnav College, Arumbakkam, Chennai Pin: 600106 Tamil Nadu India   | India   |
| Dr. Manoj Lipton                   | : Associate Professor Radharaman Institute of Technology and Science, Ratibad Bhopal Pin:462046 Madhya Pradesh India  | India   |
| Dr. Aditya Agarwal                 | Assistant Professor SRM Institute of Science and Technology, Delhi NCR Campus, Delhi Meerut Road, Sikri Kalan, Modinagar Ghaziabad Pin: 201204 Uttar Pradesh India                                    | India   |
| Mr. Deepak D J                     | Assistant Professor R V Institute of Technology and Management, Chaithanya Layout, 8th Phase, J. P. Nagar Bengaluru Pin:560076 Karnataka India  | India   |
| Mr. KATROTH BALAKRISHNA MARUTHIRAM | ASSISTANT PROFESSOR DEPARTMENT OF IT, JNTU UNIVERSITY HYDERABAD Pin: 500085 TELANGANA INDIA   | India   |
| Dr. G.Nagaraj                      | Associate Professor Sethu Institute of Technology, Pulloor, Kariapatti, Virudhunagar District. Pin:626115 Tamilnadu India   | India   |
| Dr.Sarat Kumar Swain               | PROFESSOR GITA AUTONOMOUS COLLEGE, BHUBANESWAR, AT/PO: MADANPUR, KHORDHA, PIN-752054 ODISHA INDIA   | India   |
| Dr.Belsam Jeba Ananth. M           | Associate Professor Department of Mechatronics Engineering, SRM Institute of Science and Technology, Faculty of Engineering and Technology, Kattankulathur Chengalpattu Pin: 603 203 Tamil Nadu India | India   |
| Mr. Annam Karthik                  | Assistant Professor Institute of Aeronautical Engineering, Dundigal, Hyderabad. Medchal Pin:500 043 Telangana India   | India   |
| Dr. Harikumar Pallathadka          | Director and Professor Manipur International University, Ghari, Imphal, Imphal West, Imphal Pin: 795140 Manipur India   | India   |

#### Abstract:

AUTOMATION, INTELLIGENT, AND SMART SYSTEMS USING AI-BASED MODELING: METHODS, APPLICATIONS, AND RESEARCH ISSUES Abstract: In the big data environment, personalized information of college libraries based on big data from three aspects: the overall architecture of the system model, the functional model of the design of system interface modules according to the design principles and requirements of the personalized information service system of the university library system design. In terms of the functional design of the platform, the service platform is divided into four levels: accurate identification of user needs based on big data, personalized customized services based on artificial intelligence, academic research and discussion space based on integrated media, and fine-grained subject resource aggregation based on knowledge. On this basis, a centralized model of individualized services of university libraries including internal and external personnel, information resources, technology, services, processes, platforms, and environment has been constructed. Artificial intelligence (AI) is one of the emerging trends and applications in computing in libraries. It involves programming computers to do things, which if done by humans, would be said to require intelligence. The ultimate promise of artificial intelligence in libraries is to develop computer systems or machines that think, behave, and in fact rival human intelligence, and this clearly has major implications on librarianship. The application of artificial intelligence in the library has become pervasive. They include expert systems for reference services, book reading and shelf-robots, virtual reality for immersive learning among others. Although the incorporation of artificial intelligence in libraries can be perceived to alienate librarians from their operations and services and will upgrade and heighten the relevance of libraries in an ever-changing digital society, AI is a technology at the forefront of the Fourth Industrial Revolution. It is capable of imparting human-like cognitive abilities to computers. This is what makes artificial intelligence a cutting-edge technology in the world of technology. Without AI-based modelling, it is difficult to construct automated, intelligent, and clever systems to meet the needs of the present. Analytical, functional, interactive, and visual AI are just a few examples of how the intelligence and skills of an application could be enhanced to enable it to address real-world challenges. However, developing a decent AI model is challenging due to inconsistent data and the constant flux of real-world events. In this study, we investigate the concept of "AI-based Modelling" in various disciplines, including business, banking, healthcare, agriculture, smart cities, and cyber security, among others. Additionally, we emphasize research topics that are essential for our investigation. This work's primary objective is to provide a comprehensive introduction to AI-based modelling for researchers, practitioners, and decision-makers in various domains and disciplines.

#### Complete Specification

##### Description: DESCRIPTIONS:

Artificial intelligence is the creation of intelligent devices, primarily computers. AI is utilised in a variety of applications, including expert systems, natural language processing, speech recognition, and machine vision. The public's interest in artificial intelligence (AI) is growing, so businesses must demonstrate how their products from this expanding field. When people refer to "artificial intelligence," they frequently mean a subset of the broader field, such as "machine learning." Creating and machine learning algorithms requires specialised hardware and software. Although there is no unique computer language that describes AI perfectly, many of the languages employed by AI engineers, such as Python, R, Java, C++, and Julia, share certain characteristics. Artificial intelligence is significant because it has the potential to transform our work and leisure lives. Customer service, lead generation, fraud detection, and quality assurance are just some of the corporate operations that have benefited from the automation of human labour. In several areas, artificial intelligence (AI) has already surpassed human intelligence. Typically, AI technologies can complete projects efficiently and with few errors. This is especially true for repetitive, detail-oriented tasks such as ensuring that critical fields on thousands of legal documents are filled out accurately. As a result of its ability to process vast amounts of data, artificial intelligence can reveal aspects of a company's operations that leaders would have overlooked. The number of individuals utilising generative AI tools is increasing rapidly, and these tools will be beneficial in numerous industries, including education, advertising, and product development. Artificial intelligence (AI) systems typically function by ingesting a large quantity of labelled training data, searching for correlations and patterns in that data, and then employing those correlations and patterns to predict future events. A system can learn to identify and describe objects in photographs by observing millions of examples, and a chatbot can learn to converse naturally with humans by observing millions of examples. The development of generative AI has reached a point where it can generate convincing text, images, and noises. Significant progress is being made in this field. The

[View Application Status](#)



[Terms & conditions \(http://ipindia.gov.in/terms-conditions.htm\)](http://ipindia.gov.in/terms-conditions.htm) [Privacy Policy \(http://ipindia.gov.in/privacy-policy.htm\)](http://ipindia.gov.in/privacy-policy.htm)  
[Copyright \(http://ipindia.gov.in/copyright.htm\)](http://ipindia.gov.in/copyright.htm) [Hyperlinking Policy \(http://ipindia.gov.in/hyperlinking-policy.htm\)](http://ipindia.gov.in/hyperlinking-policy.htm)  
[Accessibility \(http://ipindia.gov.in/accessibility.htm\)](http://ipindia.gov.in/accessibility.htm) [Archive \(http://ipindia.gov.in/archive.htm\)](http://ipindia.gov.in/archive.htm) [Contact Us \(http://ipindia.gov.in/contact-us.htm\)](http://ipindia.gov.in/contact-us.htm)  
[Help \(http://ipindia.gov.in/help.htm\)](http://ipindia.gov.in/help.htm)

**Content Owned, updated and maintained by Intellectual Property India, All Rights Reserved.**

**Page last updated on: 26/06/2019**