GUJARAT TECHNOLOGICAL UNIVERSITY

(GTU)

INNOVATION COUNCIL (GIC)

Patent Search & Analysis Report

(PSAR)

Date of Submission : 15/10/2020

Dear **Aghera Kishan Amrutlal,**

Studied Patent Number for generation of PSAR	:	**20BE7_170170107003_3**

PART 1: PATENT SEARCH DATABASE USED

1. Patent Search Database used	:	Indian Patent Office database
Web link of database	:	http://ipindiaservices.gov.in/publicsearch/
2. Keywords Used for Search	:	ai,chatbot,voicebot
3. Search String Used	:	ai chatbot voicebot
4. Number of Results/Hits getting	:	109

PART 2: BASIC DATA OF PATENTED INVENTION /BIBLIOGRAPHIC DATA

5. Category/ Field of Invention	:	
6. Invention is Related to/Class of Invention	:	Computer Science
6 (a) : IPC class of the studied patent	:	H04L 12/00
7. Title of Invention	:	ARTIFICIAL CHATBOTS AND VOICEBOTS FOR SMART CITY CITIZENS SERVICES
8. Patent No.	:	
9. Application Number	:	201821023423
9 (a) : Web link of the studied patent	:	http://ipindiaservices.gov.in/PublicSearch/PublicationSearch/PatentDetails
10. Date of Filing/Application (DD/MM/YYYY)	:	06/11/2018
11. Priority Date (DD/MM/YYYY)	:	
12. Publication/Journal Number	:	
13. Publication Date (DD/MM/YYYY)	:	
14. First Filled Country : Albania	:	100

15. Also Published as

Sr.No	Country Where Filled	Application No./Patent No.
1		

16. Inventor/s Details.

Sr.No	Name of Inventor	Address/City/Country of Inventor
1	JIMMY PADIA	INDIA

17. Applicant/Assignee Details.

Sr.No	Name of Applicant/Assignee	Address/City/Country of Applicant
1	ZOROIM IPSYSTEMS PRIVATE LIMITED	212-214, Madhav Darshan, Waghawadi Road, Bhavnagar, GUJARAT, INDIA

18. Applicant for Patent is : Company

PART 3: TECHNICAL PART OF PATENTED INVENTION

19. Limitation of Prior Technology / Art

No limitation found as of now.

20. Specific Problem Solved / Objective of Invention

The main objective of the presently invented method is to make available and aggregate the eGovernance services, ULB (Urban Local Body) services, CCRS (Comprehensive Complain Redressal system), and ICOP (Integrated City Operations Platform) services to Citizens over intuitive AI Chatbot and Voicebot.

The further object of the present invention is to make all the government services and ULB (Urban Local Body) services made available to each citizen of city, town, village through AI (Artificial Intelligence) Chatbot/Voicebot in English as well as a local vernacular language.

The present invented Artificial Intelligence bot model is designed, architected and trained for G2C engagement

The further object of the present invention is to engage the citizens specially youth of the country on AI Chatbot. Thereby, revolutionize the G2C (Government to Citizen) engagement space.

21. Brief about Invention

The present invention relates to AI CHATBOT AND VOICEBOT FOR SMART CITY CITIZEN SERVICES. The present invention gives Citizen the power and convenience to access all the local Government services, ULB (Urban Local Body) Services such as complain registration, eGovernance (Birth certificate, death certificate, marriage certificate, payment of property tax, professional tax, water tax, etc.), Citizen complain management (CCRS – Comprehensive Complain Redressal System), ICOP (Integrated City Operations Platform) smart city services (smart parking, temperature, pollution reading, access of IoT devices, GIS, Health management, solid waste management, City Surveillance, etc) through AI Chatbot or Voicebot.

22. Key learning Points

Artificial Intelligence, Voicebot

23. Summary of Invention

AI bot (Chatbot or Voicebot) services can be used to offer a multitude of services to its users. One such service is the ability to communicate with government agencies, local municipality, and access all government and ULB services (eGovernance, CCRS, and ICOP) through an intelligent chatbot. The intelligent personal assistant is offered to the citizen for communication, information, and to avail of all governance and smart city services either through a Chatbot or Voicebot.

Today’s government (Local/state/national) needs an effective medium to support and engage their citizens especially the next generation citizens: millennial

Most of the government services are digitized but usability is still an issue – we don’t see citizen usage or participation as expected in using these government websites or apps

Interaction/Engagement between the government and citizens feels disconnected and still done using conventional methods such as hoardings or local media (newspaper/TV). A lot of smart city applications, eGovernance, and ULB systems are deployed but there is hardly any usage of these applications because they are deployed in silos (isolation from each other) or are available through multiple web apps or mobile apps. Most of the Smart city systems are not accessible to citizens at all and have not penetrated in cities, towns, and villages. Each state has more than 150+ ULBs (Urban Local Bodies) – India might have collectively around 3500+ ULBs. The government has launched many online services such as eGovernance, Smart city applications for ULBs but most of them are not accessible to citizens and the usage of these digital systems by

citizens is very minimal.

24. Number of Claims : 10

25. Patent Status : Published Application

26. How much this invention is related with your IDP/UDP?

71 to 90%

27. Do you have any idea to do anything around the said invention to improve it? (Give short note in not more than 500 words)

The current invented chatbot platform has to Analyze section to evaluate what are major pain areas of citizens thereby guiding the government to address these issues with high priority. The current invented chatbot platform has Sentiment Analysis of citizens – each chat is tagged as positive, negative, or neutral. While the invention has been described with respect to the given embodiment, it will be appreciated that many variations, modifications, and other applications of the invention may be made.