



**GUJARAT TECHNOLOGICAL UNIVERSITY  
(GTU)  
INNOVATION COUNCIL (GIC)  
Patent Search & Analysis Report  
(PSAR)**



**Date of Submission : 09/10/2019**

Dear Gulani Simran Mahendra,

Studied Patent Number for generation of PSAR : 19BE7\_160410116038\_2

### **PART 1: PATENT SEARCH DATABASE USED**

- |                                   |   |   |
|-----------------------------------|---|---|
| 1. Patent Search Database used    | : | Google Patents  |
| Web link of database              | : | <a href="https://patents.google.com/">https://patents.google.com/</a> |
| 2. Keywords Used for Search       | : | Chat bot, NLP, De-stress service, AI, NLP Query Processing            |
| 3. Search String Used             | : | Query Processing  |
| 4. Number of Results/Hits getting | : | 7624  |

### **PART 2: BASIC DATA OF PATENTED INVENTION /BIBLIOGRAPHIC DATA**

- |   |   |   |
|---|---|---|
| 5. Category/ Field of Invention               | : |   |
| 6. Invention is Related to/Class of Invention | : | NLP Query Processing  |
| 6 (a) : IPC class of the studied patent       | : | G06F16/3332   |
| 7. Title of Invention                         | : | Natural language utterances to keyword search queries   |
| 8. Patent No.                                 | : |   |
| 9. Application Number                         | : | 13/592,638  |
| 9 (a) : Web link of the studied patent        | : | <a href="https://patents.google.com/patent/US9064006B2/en?q=~patent%2fUS20180174020A1&amp;patents=false">https://patents.google.com/patent/US9064006B2/en?q=~patent%2fUS20180174020A1&amp;patents=false</a> |
| 10. Date of Filing/Application (DD/MM/YYYY)   | : | 06/23/2015  |
| 11. Priority Date (DD/MM/YYYY)                | : |   |
| 12. Publication/Journal Number                | : |   |
| 13. Publication Date (DD/MM/YYYY)             | : |   |
| 14. First Filled Country : Albania            | : |   |

**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	Dilek Zeynep HakkaniTur	Los Altos
2	Gokhan Tur	Los Altos
3	Rukmini Iyer	Los Altos
4	Larry Paul Heck	Los Altos

**17. Applicant/Assignee Details.**

Sr.No	Name of Applicant/Assignee	Address/City/Country of Applicant
1	Microsoft Technology Licensing LLC	Redmond

**18. Applicant for Patent is** : Company

**PART 3: TECHNICAL PART OF PATENTED INVENTION****19. Limitation of Prior Technology / Art**

Inappropriate reply to the user query.

**20. Specific Problem Solved / Objective of Invention**

The only objective of invention is to make system efficient by receiving appropriate response to the user query.

**21. Brief about Invention**

A sta

See application file for complete search history. tistical model may be trained to detect domains according to a plurality of query click log data.

**22. Key learning Points**

Search keywords of user query.

**23. Summary of Invention**

Upon receiving a natural language query, the statistical model may be used to translate the natural language query into an action, Such as a search engine query. The action may then be performed and at least one result associated with performing the action may be pro vided

**24. Number of Claims** : 19

**25. Patent Status** : Published Application

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

> 91 %

**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)**

After deployment of application, survey from different parts of country in order to get distinguish data and ultimately more responses will be

stored in database.