# logo and globo

# Expression of Interest

# Team Information

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| ***No.*** | ***Student Name*** | ***PGID*** | ***Mobile No.*** | ***CBA Email ID*** |
| 1 | Balaji Venkatesh | 11910041 | 9884294829 | balaji\_venktesh\_2019@cba.isb.edu |
| 2 | Gireesh Sundaram | 11910063 | 9003063767 | gireesh\_sundaram\_2019@cba.isb.edu |
| 3 | Soumya Prasad Panigrahi | 11910088 | 9042406381 | soumya\_panigrahi\_2019@cba.isb.edu |
| 4 | Vineet Kapoor | 11910076 | 8860785265 | vineet\_kapoor\_2019@cba.isb.edu |

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| Project No | Client Name | Title of the Project |
| 13 | Fast Lane Automotive Pvt. Ltd. | Transactional and Knowledge based virtual assistant for vehicle breakdown assistance. |

Project being applied for:-

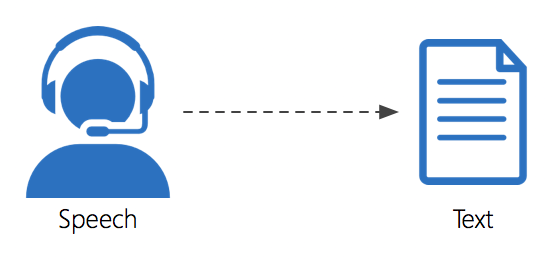
**1. Problem/ sub-problem as the team have understood.**

**First Two Weeks**

1. To create a detailed report on current state of the art virtual assistant and their applications.
2. To figure out the techniques of Data modelling, Speech recognition, NLP.
3. To research on whole model staring from vehicle breakdown to delivery of service.

**Next Two Weeks**

1. To understand workflows, existing UI , finalizing scenarios and setting up the infrastructure for project after having discussion with the client (UK partners).



**Next 8-10 Weeks**

1. To develop a virtual assistant prototype along with the integration of with a sample backend knowledge base.

**2. What is the approach you will take to address these issues?**

**Business Understanding:**

* We will work with the stakeholders to understand in detail the current workflows along with existing UI mockups and sample scenarios.
* We will understand automotive sector and how this project can become help UK automotive markets.

**Data Understanding:**

* Understanding the nuances of automotive and insurance Data. Relating the data and the features to the scenarios shared by client.

**Modeling:**

* We will try to understand Google APIs ,IBM Watson APIs for for speech to text and text to speech conversion.
* We will try to use to use HMM (Hidden Markov Modelling) and Recurrent NN ( RNN) layers to process sequences.(many to many).
* We will try to use Tensorflow to build a structure of Neural network. We will use LSTM which offer state of art of speech recognition
* The model will accommodate feedback from the current model as a part of reinforcement learning for constant fine tuning of the model

**Evaluation:**

* We will work with stakeholders to evaluate the model evaluation metrics to ensure the built model is acceptable and usable.
* To ensure built model does not lead to overfitting, we will randomly sample three subsets of data: Training, Validation and test set.

**Deployment:**

* We will work with internal stakeholders to provide recommendations on model deployment on internal data platforms

**3. Why is your team the best suited to take up this project? (your competencies as a team, interests and prior experience if any)**

Our team comprises of four people and three of the team members are located in Chennai which makes it easier to collobrate for this project. We are a group of like-minded people, coming together to solve a burning business problem, with the use of analytics.

Together as a team we are keen to work on growing technologies and bring a strong mixture of experience in analytical domain along with statistical and programming expertise with a combined experience of over 20 years.

Members in our team complement each other in terms of industry knowledge and skill set – we have good industry knowledge to take up this project and have working knowledge of different tools and techniques. In addition, we also bring a sound knowledge of statistics and machine learning algorithms, with almost all of us working in similar domain.

**Team Details:**

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|  | **Balaji Venktesh** (currently Senior Associate at Cognizant) has over 9 years of experience in Data analytics and is highly experienced in handling a team, clearly identifying and defining problem statement and taking solution approach to the problem. |
|  | **Gireesh Sundaram** (currently Associate) has 5.5 years of experience working on Statistical Analysis and BI reporting tools using SAS and various other software packages, and approaches any problem with analytical mindset. |
|  | **Soumya Prasad** (Data Scientist at DMI Innovations) has 5 years of experience with a blend of Business Intelligence and Data Science. He has hands on experience on several machine learning applications across highly diversified domains. |
|  | **Vineet Kapoor** (Data Engineer at Genpact) has almost 3.5 years of experience in Data analytics, Data integration, python programming. His expertise lies in R&D and has worked in analytics/research related assignments for various clients like mass media and information firm of Canada, US financial services units. He has developed Data pipeline for financial data for media and information firm, to help the SFDC, ML and AI teams. He has exposure to various tools like python, Tableau(Desktop and Server), Salesforce,Excel, APIs |