**Final Year Project Proposal**

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**Suggested Supervisor**:

Faculty Member’s Name: Dr Taimoor khan Signature: \_\_\_\_\_\_\_\_\_

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**Project Details**

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| **Project Title** | ***Pushto Text to Speech System*** | | |
| **Project Area of Specialization** | Natural language processing, Artificial Intelligence. | | |
| **Project Start Date** | 2021-9-17 | **Project End Date** | 2022-09-17 |
| **Project Summary (less than 2500 characters)** | We will built a system which will take Pashto text as input and will generate output as speech. We will work only in specific dialect. | | |
| **Project Objectives (less than 2500 characters)** | 1. To prepare a reasonable size corpus of Pashto text and corresponding speech.  2. Develop text to speech system model for Pashto  3. To evaluate the model based on intelligibility and naturalness of speech objective and subjective measure. | | |
| **Project Implementation Method (less than**  **2500 characters)** | Various methods such as HMMs and different neural net-work architectures such as RNNs and its variations LSTM and BLSTMs, MDNs, and others  have been applied to achieve intelligible and natural synthesized speech. However, more research is required to address these issues. | | |
| **Benefits of the Project (less than 2500 characters)** | 1. Will help visually impaired people in reading.  2. Will help speech impaired people in communication.  3. Useful in cross culture communication.  4.Useful in audio book reading. | | |
| **Technical Details of Final Deliverable (less than 2500 characters)** | In the Past Used Different approaches to tackle this problem like formant method and articulatory method to address the text but state of the art is Concatenatative method but this one also fail on unseen data. We Will move toward machine learning to handle this problem. | | |
| **Final Deliverable of the Project** | Final product will be web application. | | |
| **Type of Industry** | Natural language processing, Artificial Intelligence | | |
| **Technologies** |  | | |
| **Sustainable Development Goals** | 1. As Pashto language is not yet fully recognized globally so it will get importance. | | |

**Project Key Milestones**

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| --- | --- | --- |
| **Elapsed time in (days or weeks or month or quarter) since start of the project** | **Milestone** | **Deliverable** |
| FYP-1 | 1st 4 Months |  |
| FYP-2 | 2nd 4 Months |  |

**Project Equipment Details**

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| --- | --- | --- | --- | --- |
| **Item Name** | **Type** | **No. of Units** | **Per Unit Cost (in Rs)** | **Total (in Rs)** |
| Azure Credits | Web service | 2 | 500 | 1000 |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  | **Total in (Rs)** | **1000** |