**Final Year Project – Registration Form**

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| **Project Title:** | **AI-Powered Psychotherapy Virtual Companion** |
| **Supervisor Name:** | **Dr Sher Muhammad Daudpota** |
| **Co-Supervisor (if any)** |  |
| **Group Leader:** | **Muskan Chawla** |
| **Group Member:** | **Koyal Punjabi, Madhan Lal** |
| **Submission Date:** |  |
| **Abstract:**  In contemporary society, the prevalence of mental health issues has become a pressing concern, with many individuals hesitating to seek professional help due to various barriers. The primary aim is to offer accessible and stigma-free mental health support to individuals who may otherwise refrain from consulting a healthcare professional. This project addresses the problem by proposing a novel solution—an AI-powered psychotherapy virtual companion utilizing a large language model and generative AI. A large language model (LLM) is a powerful tool that enables a machine to enhance its ability to understand natural language and generate text that appears human-like. This LLM-based chatbot will be developed by annotating text with data such as intent, entities, sentiment, and dialogue structure. Based on this annotated data, the bot can provide users with relevant answers to their queries and engage in meaningful dialogue with them. The proposed methodology for constructing the AI-driven mental health companion including Natural Language Processing (NLP) frameworks like SpaCy and NLTK for text interaction and emotion recognition technology will be implemented for analyzing users' emotional states from text inputs. Moreover, Context retention mechanisms using databases will ensure personalized conversations based on past interactions. Continuous learning will be facilitated by machine learning algorithms via frameworks like TensorFlow. Lastly, developing a user-friendly interface, ensuring privacy, and conducting rigorous testing to validate its effectiveness. In a nutshell, the project aims to bridge the gap between mental health needs and professional assistance in an inclusive and supportive manner, thereby enhancing individual well-being. | |

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| * **Name** | **Team Member 1** | **Team Member 2** | **Team Member 3** |
| **Muskan Chawla**  **(021-21-0031)** | **Koyal Punjabi**  **(021-21-0028)** | **Madhan Lal**  **(021-21-0025)** |
| **Signature** |  |  |  |

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**Supervisor Signature Co-Supervisor Signature**