

Multilingual Counter speech Generation

A PROJECT REPORT

Submitted by,

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Under the guidance of,

Mr. Likhith S R

Assistant Professor

in partial fulfillment for the award of the degree of

BACHELOR OF TECHNOLOGY

IN

COMPUTER SCIENCE AND ENGINEERING

At



PRESIDENCY UNIVERSITY

BENGALURU


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PRESIDENCY UNIVERSITY


SCHOOL OF COMPUTER SCIENCE ENGINEERING

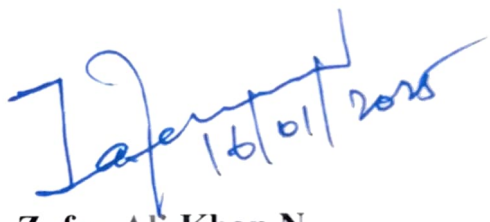
CERTIFICATE


This is to certify that the Project report “**Multilingual Counter speech Generation**” being submitted by “Avyukth Potnuru, Ayush Samuel Ajith, Naheel N Akhtar, Hasan Raza B A” bearing roll number(s) “20211CAI0123, 20211CAI0091, 20211CAI0142, 20211CAI0092” in partial fulfillment of the requirement for the award of the degree of Bachelor of Technology in Computer Science and Engineering is a bonafide work carried out under my supervision.


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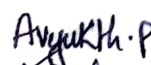

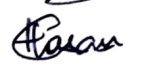

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DECLARATION

We hereby declare that the work, which is being presented in the project report entitled **Multilingual Counter speech Generation** in partial fulfillment for the award of Degree of **Bachelor of Technology** in **Computer Science and Engineering**, is a record of our own investigations carried under the guidance of **Mr. Likhith S R, School of Computer Science Engineering & Information Science, Presidency University, Bengaluru.**

We have not submitted the matter presented in this report anywhere for the award of any other Degree.

Name of the Student	Roll Number	Signature
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ABSTRACT

In this project we aim to focus on one such solution - Multilingual counter-speech generation using Generative AI, which allows for state-of-the-art natural language processing techniques to successfully detect hate speech, analyse its sentiment and toxicity and generate culturally relevant, informative, and appropriate counter narratives that can curb the mindset of people. The system is designed to be able to process user input, detect the language of the hate speech to ensure global coverage, and classify it into target groups such as religion, caste, colour, or gender. Techniques such as TF-IDF vectorization and cosine similarity allow us to identify relevant examples from curated datasets to inform the analysis. The sentiment and toxicity scores allow for the system to process the severity and intention behind the inputted hate speech. To ease the user's interaction with the model, we have included a user interface created using the Gradio library. Through rigorous evaluation and validation techniques, the project emphasizes cultural sensitivity, linguistic accuracy, and the ethical implications of AI-driven counter-speech.