(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :09/04/2025

(21) Application No.202541034981 A

(43) Publication Date : 09/05/2025

(54) Title of the invention : IMPROVING EFL STUDENTS' IMPROMPTU SPEAKING PERFORMANCE AND LEARNING ENGAGEMENT IN HIGHER EDUCATION WITH MACHINE LEARNING

(51) International classification	:G09B0007020000, G09B0019060000, G09B0005060000, G09B0019040000, G06Q0050200000
(86) International Application No Filing Date	:NA :NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

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(57) Abstract :

IMPROVING EFL STUDENTS' IMPROMPTU SPEAKING PERFORMANCE AND LEARNING ENGAGEMENT IN HIGHER EDUCATION WITH MACHINE LEARNING The present invention relates to the higher education English as a Foreign Language (EFL) 5 10 15 students need to be able to talk spontaneously, yet many have trouble with fluency, coherence, and confidence. Students' success is often limited by traditional teaching approaches' inability to offer real-time assessment and tailored feedback. This study investigates how machine learning (ML) can be used to improve the spontaneous speaking abilities and learning engagement of EFL students. Students can more effectively evaluate and improve their speech by using ML-powered speech analysis tools that provide automated feedback on pronunciation, grammar, and speech fluency. Furthermore, speaking activities are tailored using ML-based adaptive learning algorithms according to each person's skills and shortcomings, encouraging motivation and active engagement. Comparing ML-assisted learning to traditional methods, experimental results indicate that the former greatly enhances students' speaking skills and engagement.

No. of Pages : 12 No. of Claims : 1