




BMS INSTITUTE OF TECHNOLOGY AND MANAGEMENT
(An Autonomous Institution, affiliated to VTU)

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Department of MCA

Consolidated Final Year Project Abstract (2023-2024)

Project Title	Music Tuner
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Project Area	Digital Signal Processing
Abstract	<p>The development of an advanced audio tuner application using Python and various digital signal processing (DSP) techniques aims to provide musicians and audio engineers with a precise tool for real-time musical note and frequency detection. Leveraging libraries such as Tkinter for the graphical user interface (GUI), pyaudio for audio capture, and specialized algorithms for frequency detection and noise reduction, the project addresses common challenges in audio tuning, including handling noisy environments and delivering real-time feedback. The application offers features such as real-time frequency detection, accurate note identification, recording and playback, logging and history of detected notes, and customizable noise reduction settings.</p>