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Rockford, IL April 2nd, 2024

To whom it may concern:

Letter of Appreciation

It gives me immense pleasure to appreciate **Shaun Noronha**, **Sheetal**, **Ritesh Shetty and Shreenidhi**, undergraduate students from the Department of Information Science and Engineering of N.M.A.M Institute of Technology for successful completion of project entitled "**Machine Learning Techniques for Acoustic Emission Based Monitoring of Hip Implants**" together with Dr. Rashmi Shetty.

Over the course of their involvement from 01.10.2023 to 31.03.2024, Shaun Noronha, Sheetal, Ritesh Shetty, and Shreenidhi worked on developing a machine learning model to analyze and predict the hip implant condition based on the Acoustic Emission data. They successfully developed a Multilayer Perceptron neural network model by achieving a remarkable accuracy of 99%. Additionally, they orchestrated the creation of a user-friendly webpage facilitating interaction with the model, enhancing its accessibility and usability.

Their hard work and commitment have not only made a significant impact on the project's success but have also left a lasting impression on me as a mentor. I am confident that they will continue to excel in their academic and professional endeavors.

Yours sincerely,

Mathew T. Mathew, Ph.D.

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Professor,

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