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Dr. Laxmidhar Behera Professor

To whom so ever it may concern

Date: 25 August 2020

This is to certify that Mr. Kaustubh Dwivedi of Vellore Institute of Technology, Vellore has successfully completed the internship program under my guidance as part of 90 day "Applied Machine Learning and Data Science" program organized by CCE, IIT Kanpur.

As part of the internship, he completed the project – "Sentiment analysis of tweets using Natural Language Processing". As part of this project, he had to classify a set of tweets based on their polarity as positive, negative or neutral. He developed skills such as - various techniques for pre-processing text, text representation using word embeddings, comparing efficacy of models such as LSTMs, GRUs and CNNs for text classification.

His overall performance as part of the internship was *Excellent*.

Best regards,

Dr Laxmidhar Behera

Poonam and Prabhu Goel Chair Professor

Indian Institute of Technology Kanpur