Department of Electrical and Computer Engineering
North South University

Senior Project Design

Towards the Analysis and Detection of MS and PhD Admission of Bangladeshi Students into different Ranking University

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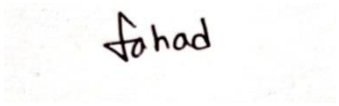
Declaration

This is to declare that no part of this report or the project has been previously submitted elsewhere for the fulfillment of any other degree or program. Proper acknowledgement has been provided for any material that has been taken from previously published sources in the bibliography section of this report.



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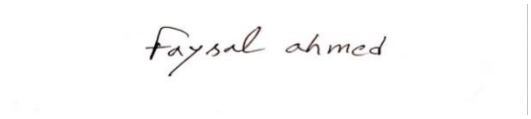

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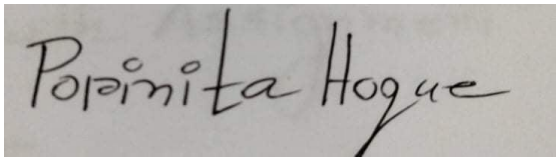

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Approval

The Senior Design Project entitle “Towards the Analysis and Detection of MS and PhD Admission of Bangladeshi Students into different Ranking University” by Md. Fahad Arafin, Md. Faysal Ahmed and Porinita Haque has been accepted as satisfactory and approved for partial fulfillment of the requirement of BS in CSE degree program.

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Acknowledgement

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Abstract

Towards the Analysis and Detection of MS and PhD Admission of Bangladeshi Students into different Ranking University

Many Bangladeshi students intend to pursue higher studies abroad after completing their undergraduate degrees every year. Choosing a university for higher education is an ambiguous task for students. Usually, they face various problems in selecting the perfect university for them according to their profile. Especially, the students with average and lower academic credentials (undergraduate grades, English proficiency test scores, job, and research experiences) can hardly choose the universities that could match their profile. In this paper, we have analyzed some real unique data of Bangladeshi students who had been accepted admissions at different universities worldwide for higher studies. Finally, we have produced prediction models, which can predict appropriate universities of specific classes for students according to their past academic performances. Two separate models have been studied in this paper, one for MS students and another for PhD students. According to the QS World University Rankings, the universities where the students got admitted have been divided into nine classes for Masters (MS) students and eight classes for PhD students. Random Forest and Decision tree algorithms are used for making the multi-class classification models. F1-score, accuracy, weighted accuracy, and the receiver operating characteristic curves have been studied for the two machine learning algorithms. Numerical results show that for MS data using random forest and decision tree we got same accuracy which is 86%. Again for PhD data using random forest and decision tree we got same accuracy which is 89%.