

# **A Multiple Regression Analysis of Academic Workload, Stress Level, Procrastination, and Academic Performance of 4<sup>th</sup> year Architecture and Industrial Engineering Students At the Technological Institute of the Philippines - Quezon City A.Y 2022-2023**

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## **Abstract**

Many students, particularly 4th-year Architecture and Industrial Engineering students, have been influenced by the change to e-learning in the Philippines as a result of the COVID-19 pandemic. This puts a strain on college students' efforts to fulfill daily academic demands, which can negatively impact their well-being and motivation to study. Due to the effects of the Covid-19 pandemic, the education sector adopted a new normal in the form of Online Learning. This paper addresses different factors affecting students academic performance such as academic workload, stress level, and procrastination in online classes. The study aims to establish the multiple regression relationship between academic workload, academic stress, academic procrastination and academic performance. This study benefits and serve awareness for students, faculty teachers, Commission of Higher Education (CHED), and future researchers towards the factors that could affect the students academic performance based on the level of workload, stress, and academic procrastination. The number of participants of architecture students with 107 and industrial engineering students with 71 with a total of 178 students. The results shows , the average level of procrastination is 26.75(High) for architecture students and 28.4(High) for industrial engineering students. While the average academic workload for architecture students is 16.95(High) and for industrial engineering students is 17.49(High), the average academic stress for architecture students is 26.75(High) and for industrial engineering is 17.75(Moderate). The results showed that academic workload and procrastination had a significant relationship with students' academic performance based on the indicated coefficients with a 95% confidence interval with, R-squared = 47.84% variance shows that the independent variable a had a significant relationship in students' academic performance, which is normal since predictive analysis of human behavior tends to give a value of less than 50%.

## **Keywords**

Procrastination, Academic Stress, Academic Workload, Academic Procrastination and Online Class.

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## **Biographies**

**Buenaventura H, Jefferson Jr** is currently a fourth-year Industrial Engineering student at the Technological Institute of the Philippines—Quezon City, taking up a Bachelor of Science in Industrial Engineering. He had experience with related industrial engineering such as Microsoft Office, Autocad, Lingo, C++ programming, and Promodel. He had experience as a representative of the Wadhvani Foundation competition (Tech 101), and he was the leader of the group. He became dean lister from the school year 2020 to present.

**Garcia, Mark Joshua B.** is currently a fourth year student in Bachelor of Science in Industrial Engineering at Technological institute of the Philippines, Quezon city. Garcia is experienced with Microsoft Office, Excel, AutoCAD, and other Engineering tools regarding the BSIE program. And also a good team player in handling problems and pressure in the given project to have confidence in many other school activities. Also attended many IE seminars on ORIENTS and still willing to learn more on how and Industrial Engineering can do in the field.

**Gan, Marc Sheen M.** is currently a Senior Year Industrial Engineering student at Technological Institute of the Philippines, he had work experience in using AutoCAD in making well said blueprints and outlines related to construction, and also had a little bit of experience in using engineering tools related to Industrial Engineering. He also got a certificate of achievement by Wadhvani Foundation as one of the candidates in making Potential Real Venture in Engineering Entrepreneurship. He is also an experienced leader among members and is very innovative and confident in making such things. He is active in most activities and always attends seminars, training, conferences among Industrial Engineering.

**Madero, Stewart Alvin M.** is currently a fourth year student at the Technological Institute of the Philippines in Quezon city taking up a Bachelor of Science in Industrial Engineering (BSIE). He was a Student Athlete since high school, represented Antipolo for 9 years in table tennis and was a member of pep squad in college representing IE 2018, and player of table tennis representing IE Champion.

**Pizarro, Jussell Joe V.** is currently senior year of Industrial Engineering at Technological Institute of the Philippines, Quezon City, Philippines. he was an student-athlete representing IE department of Technological Institute of the Philippines during the Inter-department 2019 and his Former school Christ the King College of Angono. He was a member of the PIIE in 2019-2020 and became VPAA Lister from the school year 2020-present. He envisioned better transportation in the future of the Philippines and took an elective course of Railway Engineering because of it. During his High school days he became Secretary of Drum and lyre from 2016-2017 and became class officers entitled Auditor in his Grade 10 day's. Not only he has talent in Badminton but also has talents in academics he became rank 4 total in his Grade 9 and consistent in Grade 10.

**Ramos, Ralph Andrei I.** is currently a fourth (4th) year undergraduate student at the Technological Institute of the Philippines in Quezon City, taking up a Bachelor of Science in Industrial Engineering (BSIE). Ramos is experienced with Microsoft Office, AutoCAD, Lingo Software, MATLAB, and ProModel, all of which are related to Industrial Engineering. He is innovative, creative, and motivated about learning new things. In terms of the chores allocated to him, he also knows how to manage time. He also attended numerous training and seminars like communications, and accounting management on development in the study of Industrial Engineering.

**Usita Robert Ian D.** is a fourth year student pursuing a Bachelor of Science in Industrial Engineering (BSIE) at Technological Institute of the Philippines In Quezon city. Usita is experienced with Microsoft Office, Excel, and all of which are related to the Industrial Engineering Program. He was a student-dancer from high school up to senior high school, representing STEM STRAND 1st runner up and a member of CEA GROUP in college, representing IE AY 2019-2020 champion in the competition.