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Exploring the Relationship between Social Networking Addiction, Academic Stress and Academic Performance

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Abstract: ***The contemporary digital landscape presents a complex interplay between social networking addiction, academic stress, and academic performance. As students navigate the challenges of academia while remaining constantly connected to the digital world, it is essential to examine the relationships between these factors. This study endeavors to explore the intricacies of this relationship, drawing upon existing research and shedding light on potential implications for students, educators, and policymakers alike. A deeper understanding of these dynamics equips us to navigate the digital age while preserving the pursuit of academic excellence. This study utilized a quantitative research design to collect data from two groups: males and females, using a self-administered questionnaire that will gather information on social network addiction, academic stress and academic performance. In this study, the examination of the intricate relationship among social networking addiction, academic stress, and academic performance has provided valuable insights into the complex interplay of these factors. However, the study has also brought to light several research gaps that require further investigation. In conclusion, this study has illuminated the elaborate dynamics among social networking addiction, academic stress, and academic performance. By addressing these complexities and leveraging the insights gained, researchers and educational institutions can strive to create a healthier and more supportive academic environment that empowers students to excel academically while maintaining a balanced relationship with the digital world.***

Keywords: Social Networking Addiction, academic stress, academic performance, social media, youth.

I. INTRODUCTION

In the 21st century, the rapid proliferation of digital technology has ushered in an era characterized by unprecedented connectivity, fundamentally transforming the way individuals interact, communicate, and engage with the world. One of the most influential facets of this technological revolution is the advent of social networking platforms. Social media platforms have permeated every aspect of modern society, offering unique avenues for social interaction, self-expression, and information exchange. While these platforms offer numerous benefits, they have also raised concerns regarding their addictive nature and potential consequences for academic life. This study delves into the intricate relationship between social networking addiction, academic stress, and academic performance, aiming to illuminate how these factors intersect and influence one another.

1) *The Prevalence of Social Networking Addiction:* The concept of social networking addiction has garnered substantial attention in recent years. As individuals increasingly rely on social media to fulfill their social and informational needs, distinguishing between healthy usage and addictive behavior has become challenging. Social networking addiction is characterized by excessive, compulsive, and disruptive use of social media platforms, which can lead to a range of adverse consequences. It is important to note that "addiction" in this context does not adhere to clinical criteria for substance addiction but rather denotes problematic behavior and psychological dependence on social media (Andreassen et al., 2012). Numerous studies have examined the prevalence of social networking addiction among student populations. Research conducted by Kuss and Griffiths (2011) revealed that a significant portion of students exhibited symptoms indicative of addiction to social networking sites, with a strong correlation between addiction and the amount of time spent online. This addictive behavior can have far-reaching implications for various aspects of students' lives, including their academic performance.
2) *The Nexus of Social Networking Addiction and Academic Stress:* Academic life, particularly in higher education, is known for its demanding curriculum, stringent deadlines, and the constant pursuit of excellence. Understandably, students experience a substantial amount of stress during their academic journeys. However, the advent of social networking platforms has introduced a novel dimension to this stress.

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The allure of social media, with its constant notifications, updates, and virtual social circles, can be particularly distracting for students, diverting their attention from academic responsibilities. Several studies have explored the connection between social networking addiction and academic stress. For instance, research by Al-Menayes (2016) identified a positive association between social media addiction and academic stress levels among university students. This association suggests that students who are addicted to social networking platforms may experience heightened academic stress due to the time and cognitive resources allocated to online interactions at the expense of academic pursuits.

3) *The Impact on Academic Performance*: The ultimate consequence of social networking addiction and academic stress is their potential impact on students' academic performance. While social media platforms offer valuable tools for academic networking and information sharing, their excessive use can hinder academic progress. Constant interruptions and procrastination associated with social media can lead to reduced study time and decreased focus on academic tasks. Research conducted by Karpinski et al. (2013) indicated that students who frequently use social networking sites tend to achieve lower GPAs than those who use them less frequently.

In conclusion, the contemporary digital landscape presents a complex interplay between social networking addiction, academic stress, and academic performance. As students navigate the challenges of academia while remaining constantly connected to the digital world, it is essential to examine the relationships between these factors. This study endeavors to explore the intricacies of this relationship, drawing upon existing research and shedding light on potential implications for students, educators, and policymakers alike. A deeper understanding of these dynamics equips us to navigate the digital age while preserving the pursuit of academic excellence.

II. OBJECTIVE

1) To investigate the association between social networking addiction and coping strategies among students, determining whether a significant relationship exists or if no association is evident between these variables.
2) To explore the correlation between academic performance and social networking addiction among students, assessing whether heightened levels of social networking addiction negatively affect academic performance.
3) To examine the connection between social networking addiction and academic stress among students, aiming to identify if a significant relationship exists or if no discernible association is present between these factors.
4) To evaluate the impact of academic stress on students' academic performance, investigating whether increased academic stress positively or negatively influences academic achievements.
5) To investigate the potential relationship between students' academic performance and their employed coping mechanisms, determining whether a significant association exists or if no correlation can be established between these variables.
6) To analyze the correlation between academic stress and coping strategies among students, aiming to ascertain whether heightened academic stress is linked to reduced effectiveness in coping mechanisms.
7) To compare and contrast the correlations observed between the studied metrics (e.g., social networking addiction, academic performance, coping, and academic stress) within the male and female populations, with the goal of identifying potential differences in these correlations based on gender.

III. RESEARCH METHODOLOGY

This study utilized a quantitative research design to collect data from two groups: males and females. Data was collected using a self-administered questionnaire that gathered information on social network addiction, academic stress and academic performance. Standardized scales for social network addiction, academic stress and academic performance were included in the questionnaire.

1) *Sample size:* The intent of the study was to gather data from the youth population belonging to the age group of 18-25. The sample consisted of 40 males and 40 females. Doing this helped to draw a comparative study between the both groups of students. The sample size was kept small. It was made sure that all the subjects have relatively same economic, social and cultural background so that it does not interfere with the study as an extraneous variable.
2) *Sampling Technique*: The participants were recruited through advertisements in social media on the basis of snowball sampling. A non-probability sampling technique called snowball sampling, also known as chain referral sampling, depends on the referrals of beginning participants to produce additional participants. In snowball sampling, the researcher begins with a small number of participants, usually from a specific population of interest. The initial participants are then asked to refer other individuals who they believe may be relevant for the study.

3) *Inclusion Criteria:* The criterions that were included is the age range and gender of the participants. The age of the participants varied between 18 to 25 which included males and females. The responses of the participants were kept confidential. The cultural and social background of the participants were kept to be almost similar.
4) *Exclusion Criteria:* The criterions that were excluded were that participants below the age of 18 and above the age of 25 were not included in the research study. The participants who cannot read were also excluded as the researcher acquired questionnaire method. Extraneous variables were minimized as much as possible.
5) *Measures:*

a) *Social Media Disorder Scale*: The social media disorder scale (researcher's version) developed by van der eijnden. The scale consists of 9 items to measure one's feelings about social media. Response options for the items were "yes" or "no". The responses were scored as "yes" - 1 and "no" - 0.

b) *Academic Stress Questionnaire:* The academic stress questionnaire developed by amritpal kaur. The questionnaire is divided into two parts. The first part of the scale studies academic stress which consists of 52 items. The second part focuses on how to cope to stress which consists of another 22 items. Response options for the items were alaway, often, sometimes, rarely and never. The first part of the questionnaire is divided into 7 dimensions and they are:

- Academic stress due to student's own behaviour
- Academic stress due to classmates
- Academic stress due to classroom environment
- Academic stress due to teaching methodology
- Academic stress due to family problems
- Academic stress due to examination

The items measuring responses on five-point scale were given weightages as 1,2,3,4,5 for positive items and 5,4,3,2,1 for negative items respectively.

c) *Personal Information Form:* The third variable that is studied is academic performance. The personal information form used to study academic performance of the college students. The information form had 5 questions about gender, age, educational level, school of study and grade point average (GPA). After the responses are collected, we get the total score which is the academic performance of each individual.

d) *Procedure:* Data was collected through the questionnaire method. The questionnaires were given to the subjects in google forms format. The questions were close-ended ones. The participants will be instructed to respond honestly and to the best of their ability. The survey took nearly 10 to 15 minutes to be done. After the responses were collected the total score for each individual was calculated. Then a comparative study was made to see the difference between both the groups.

IV. RESULTS AND DISCUSSIONS

The statistical analysis of a study investigating the relationships among social networking addiction, academic stress, and academic performance plays a pivotal role in drawing meaningful conclusions from the collected data. Descriptive statistics are used to provide a concise summary of the main data characteristics. These statistics include measures like means and standard deviations. In this context, descriptive statistics offer an overview of average social media usage patterns, the distribution of academic stress scores, and the range of academic performance scores within the surveyed student population. Also, to explore the relationships between the variables of interest—social networking addiction, academic stress, and academic performance—correlation analysis is typically employed. Pearson's correlation coefficient is a common tool for assessing the strength and direction of linear relationships between variables. Through correlation analysis, researcher aims to determine if there are statistically significant associations, such as a positive correlation between higher social networking addiction scores and increased academic stress.

Table 1. Result table displaying the mean and S.D. of total the scores of participants for social networking addiction, academic performance and academic stress.

	Academic Performance	Social Networking Addiction	Academic Stress	Academic Stress (coping)
Mean	8.18	3.5	155.36	66.76
Standard Deviation	0.99	2.36	20.57	6.36

Note: N=80 (Male=40 and Female=40)

In Table 1, the statistical analysis of the raw scores reveals significant findings. The mean score for academic performance is 8.18, with a standard deviation of 0.99, indicating the consistency in performance levels among the study participants. Social networking addiction, on the other hand, exhibits a mean score of 3.5, accompanied by a standard deviation of 2.36, suggesting a wide range of addiction levels within the sample. Academic stress is reflected in a mean score of 155.36 and a standard deviation of 20.57, highlighting substantial variability in stress levels among the students. Lastly, coping with academic stress is represented by a mean score of 66.76 and a standard deviation of 6.36, indicating a moderate level of variation in the effectiveness of coping mechanisms employed by the participants in response to academic stressors.

Table 2. Result table displaying the mean and S.D. scores of female participants for social networking addiction, academic performance, academic stress and academic stress (coping)

Variables	Mean	Standard deviation
Social networking addiction	3.65	2.06
Academic performance	8.05	0.81
Academic stress	152.33	20.14
Academic stress (coping)	65.76	6.79

Table 3. Result table displaying the mean and S.D. scores of male participants for social networking addiction, academic performance, academic stress and academic stress (coping)

Variables	Mean	Standard deviation
Social networking addiction	3.35	2.64
Academic performance	8.31	1.13
Academic stress	158.4	20.79
Academic stress (coping)	67.75	5.81

Referring to Tables 2 and 3, a comparative analysis between male and female participants' scores reveals notable distinctions in various aspects. Firstly, concerning social networking addiction, the mean score for males is 3.35, with a standard deviation of 2.64, while for females, it is 3.65, with a standard deviation of 2.06. Although the disparity in scores is marginal, it suggests that female participants exhibit a slightly higher susceptibility to social networking addiction compared to their male counterparts.

Secondly, in the realm of academic performance, males attain a mean score of 8.31, with a standard deviation of 1.13, whereas females achieve a mean score of 8.05, with a standard deviation of 0.81. Despite the minimal difference between the male and female scores, it implies that male participants tend to perform slightly better academically than their female counterparts.

Moving on to academic stress, male participants record a mean score of 158.4, with a standard deviation of 20.79, while female participants have a mean score of 152.33, with a standard deviation of 20.14. The data suggests that male participants experience a slightly higher level of academic stress compared to their female counterparts.

Lastly, regarding coping with academic stress, males demonstrate a mean score of 67.75, with a standard deviation of 5.81, whereas females exhibit a mean score of 65.76, with a standard deviation of 6.79. Interestingly, although male participants experience greater academic stress than females, they appear to be more adept at coping with these stressors.

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Table 4. Result table displaying mean and S.D. of dimension-wise scores of the male and female participants for academic stress.

FEMALE			MEN		
Dimensions	Mean	SD	Dimensions	Mean	SD
Academic stress due to student's own behavior	25.83	6.14	Academic Stress due to student's own behavior	26.75	6.62
Academic stress due to classmates	15.83	2.66	Academic Stress due to classmates	16.13	2.85
Academic stress due to classroom environment	43.1	6.87	Academic Stress due to Classroom environment	44.48	9.39
Academic stress due to teaching methodology	32.53	8.96	Academic Stress due to teaching methodology	34.25	6.90
Academic stress due to family problems	10.75	2.69	Academic Stress due to family problems	10.25	2.22
Academic stress due to school facilities	3.98	1.19	Academic Stress due to school facilities	4.53	0.72
Academic stress due to examination	20.33	5.89	Academic Stress due to examination	22.03	6.48

Table 4 presents an analysis of various dimensions of the academic stress scale, highlighting gender-based differences in perceived stressors.

In Dimension 1, focusing on academic stress stemming from students' own behavior, females exhibit a mean score of 25.83, with a standard deviation of 6.14, while males have a mean score of 26.75, with a standard deviation of 6.62. These results suggest that male participants perceive slightly more academic stress associated with their own behavior compared to their female counterparts.

In Dimension 2, which explores academic stress caused by classmates, females display a mean score of 15.83, with a standard deviation of 2.66, while males record a mean score of 16.13, with a standard deviation of 2.85. This indicates that male participants perceive marginally more academic stress attributable to their classmates than female participants.

Dimension 3 pertains to academic stress linked to the classroom environment. In this dimension, females report a mean score of 43.1, with a standard deviation of 6.87, while males report a mean score of 44.48, with a standard deviation of 9.39. Thus, male participants perceive slightly more academic stress emanating from the classroom environment than female participants.

In Dimension 4, focusing on academic stress due to teaching methodology, females have a mean score of 32.53, with a standard deviation of 8.96, whereas males have a mean score of 34.25, with a standard deviation of 6.90. This suggests that male participants perceive slightly more academic stress arising from teaching methodologies compared to their female counterparts.

Dimension 5 examines academic stress linked to family problems. In this dimension, females report a mean score of 10.75, with a standard deviation of 2.69, while males report a mean score of 10.25, with a standard deviation of 2.22. This implies that female participants perceive slightly more academic stress related to family problems than male participants.

In Dimension 6, which assesses academic stress associated with school facilities, females have a mean score of 3.98, with a standard deviation of 1.19, whereas males have a mean score of 4.53, with a standard deviation of 0.72. These results suggest that male participants perceive slightly more academic stress due to school facilities than female participants.

Lastly, in Dimension 7, examining academic stress related to examinations, females report a mean score of 20.33, with a standard deviation of 5.89, while males report a mean score of 22.03, with a standard deviation of 6.48. This indicates that male participants perceive slightly more academic stress associated with examinations than their female counterparts.

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Table 5. Result table displaying the correlation between social networking addiction, academic performance and academic stress.

Variables	Academic Performance	Social Networking Addiction	Academic Stress	Academic Stress (Coping)
Academic Performance	1			
Social Networking Addiction	-0.20	1		
Academic Stress	0.45	-0.51	1	
Academic Stress (Coping)	-0.15	-0.36	-0.002	1

In Table 5, which presents the computed Pearson's product-moment correlation coefficients (r) between social networking addiction, academic performance, and academic stress, several key observations emerge:

Firstly, the correlation coefficient between social networking addiction and academic performance is r = -0.20, with a p-value greater than 0.05. These statistics suggest a non-significant correlation between susceptibility to social media addiction and students' academic performance. In simpler terms, it appears that there is no clear relationship between these two variables among the participants in this study.

Secondly, the correlation coefficient between academic stress and academic performance is r = +0.45, with a p-value less than 0.05. This implies a moderate positive correlation between students' academic performance and their perceived academic stress. In other words, higher levels of academic stress are likely to correspond with higher levels of academic performance among the participants in this study.

Furthermore, the correlation coefficient between academic stress and social networking addiction is r = -0.51, with a p-value less than 0.05. This signifies a moderate negative correlation between students' susceptibility to social media addiction and their perceived academic stress. In practical terms, higher levels of academic stress are likely to correspond with lower levels of social networking addiction among the participants.

On another note, the correlation coefficient between coping with academic stress and academic performance is r = -0.15, with a p-value greater than 0.05. This indicates a non-significant correlation between students' perceived academic stress and their coping mechanisms. In essence, there doesn't appear to be a clear relationship between these two variables within this group of participants.

Moreover, the correlation coefficient between coping with academic stress and social networking addiction is r = -0.36, with a p-value less than 0.05, suggesting a weak negative correlation between susceptibility to social media addiction and coping with academic stress.

Lastly, the correlation coefficient between coping with academic stress and academic stress itself is r = -0.002, with a p-value greater than 0.05. This indicates a non-significant correlation between students' perceived academic stress and their coping strategies. In practical terms, there seems to be no clear relationship between these two variables within this set of participants.

Table 6. Result table displaying the correlation between social networking addiction, academic performance and academic stress in male participants.

Variables	Academic performance	Social Networking Addiction	Academic Stress	Academic Stress (Coping)
Academic Performance	1			
Social Networking Addiction	-0.33	1		
Academic Stress	-0.03	0.63	1	
Academic Stress (Coping)	-0.24	-0.08	-0.30	1

Table 7. Result table displaying the correlation between social networking addiction, academic performance and academic stress in female participants.

Variables	Academic performance	Social Networking Addiction	Academic Stress	Academic Stress (Coping)
Academic Performance	1			
Social Networking Addiction	0.07	1		
Academic Stress	0.41	-0.30	1	
Academic Stress (Coping)	-0.35	-0.27	0.04	1

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In examining the correlations among the three variables for male and female participants, notable distinctions emerge. Among males, the data suggests weak negative correlations between the three variables, except for the relationship between academic stress and social networking addiction, which indicates a weak positive correlation. Conversely, among females, the scores reveal a weak positive correlation between academic stress and academic performance, social networking addiction and academic performance, and coping with academic stress and academic stress. In contrast, the remaining correlations among females are characterized by weak negative associations.

V. IMPLICATIONS AND RESEARCH GAPS

In the process of exploring the intricate relationship between social networking addiction, academic stress, and academic performance, it's vital to consider the implications of our findings and recognize the existing gaps in research.

Implications:

1) *Student Well-being:* Understanding the connection between social networking addiction and academic stress holds significant implications for promoting student well-being. Educational institutions and policymakers can leverage this knowledge to formulate strategies and interventions aimed at assisting students in establishing a healthy equilibrium between online and offline activities, consequently reducing academic stress.
2) *Academic Performance Enhancement:* Acknowledging the adverse effects of social networking addiction on academic performance underscores the importance of nurturing digital literacy and time management skills among students. Institutions can introduce educational initiatives to enhance students' capacity to employ social media productively without jeopardizing their academic achievements.
3) *Educational Policy Development:* Higher education institutions may need to revisit and adapt their policies concerning technology usage on campus. This could involve creating designated technology-free zones within libraries and study areas or implementing guidelines for responsible social media usage during academic activities.

Research Gaps:

a) *Causality:* While numerous studies have established correlations between social networking addiction, academic stress, and academic performance, there is a dearth of longitudinal research that investigates causality and the direction of these relationships. Does social media addiction cause academic stress, or does academic stress lead to increased social media use?
b) *Moderating Factors:* The impact of social networking addiction on academic performance may vary depending on individual characteristics such as personality traits, time management skills, and the nature of academic programs. Identifying these moderating factors can provide a more nuanced understanding of the relationship.
c) *Technological Changes:* The digital technology landscape is perpetually evolving, with new platforms and features constantly emerging. Research should adapt to these changes to provide insights into their impact on students' academic experiences.

The implications and research gaps highlighted in this section underscore the significance of sustained investigation into the complex interplay of social networking addiction, academic stress, and academic performance. This knowledge can inform strategies to support students in maintaining a harmonious balance between their online and academic lives, ultimately contributing to their overall well-being and success in education.

VI. CONCLUSION

In this study, the examination of the intricate relationship among social networking addiction, academic stress, and academic performance has provided valuable insights into the complex interplay of these factors. The findings bear significant implications for student well-being and the educational landscape, while also highlighting critical research gaps that warrant further exploration.

The practical implications of these findings underscore the importance of addressing social networking addiction in the context of academic stress and performance. Educational institutions and policymakers can harness this knowledge to formulate strategies and interventions aimed at fostering a balanced approach to online and offline activities among students. By nurturing digital literacy, time management skills, and mental health support services, institutions can assist students in managing academic stress and reducing their reliance on social media as an escape.

However, the study has also brought to light several research gaps that require further investigation. To establish causality and understand the direction of the relationships between social networking addiction, academic stress, and academic performance, longitudinal research is needed. This will help determine whether social media addiction causes academic stress, or if academic stress leads to increased social media use, ultimately aiding in the development of effective interventions.

Furthermore, exploring moderating factors that influence the impact of social networking addiction on academic performance is essential.

These factors may encompass individual characteristics, cultural influences, and the specific attributes of academic programs, providing a more nuanced understanding of the relationship. The efficacy of interventions designed to mitigate social networking addiction also requires in-depth evaluation. Identifying the most effective strategies for addressing social media addiction and its adverse effects on academic life is paramount for the development of tailored interventions. Lastly, as digital technology continually evolves, research must adapt to assess the impact of emerging platforms and features on students' academic experiences.

VII. ACKNOWLEDGEMENT

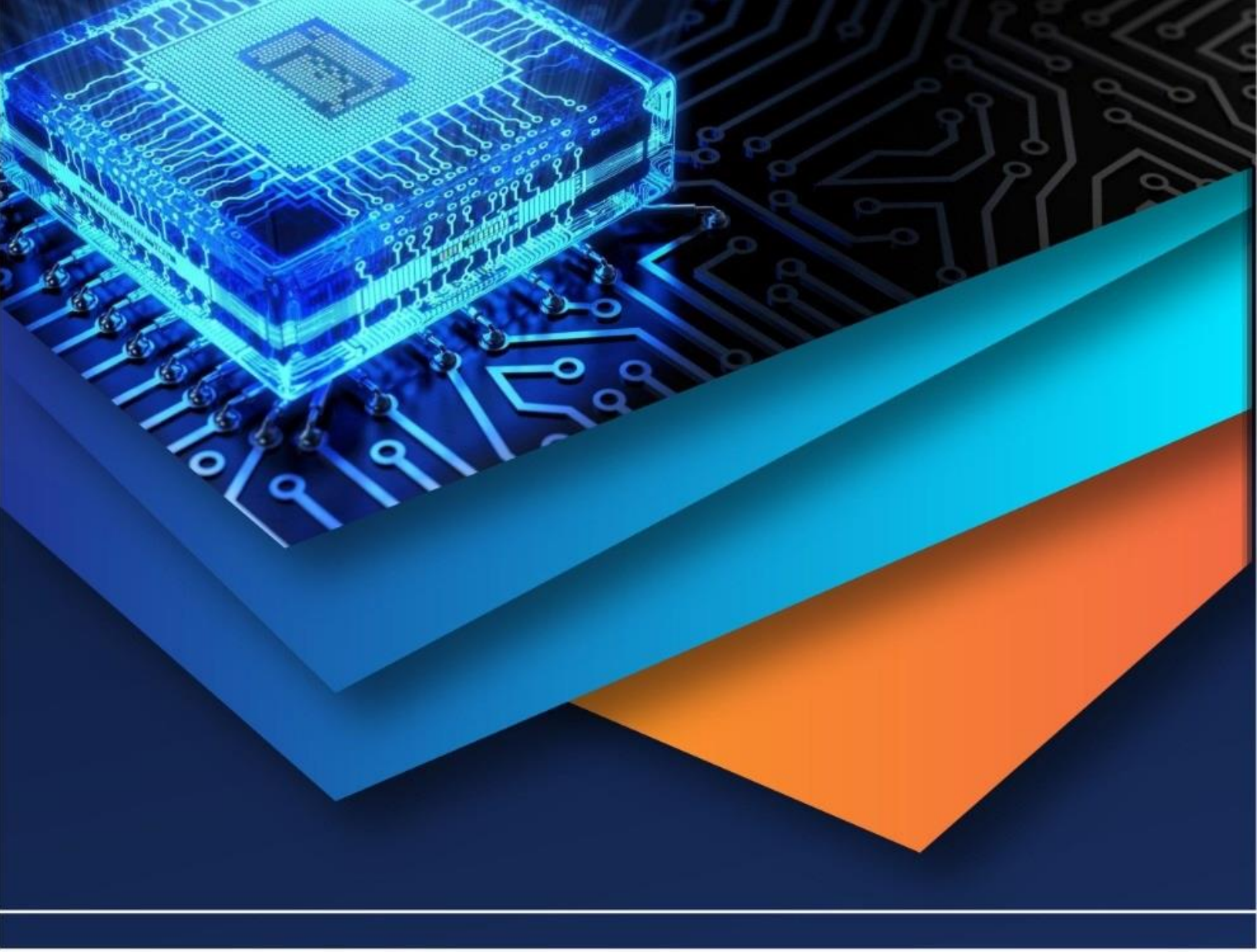
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