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A Study on Yoga Education and Its Impact on Stress Management and Teaching Effectiveness among Teacher Trainees in Biswanath District, Assam

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Abstract: ***The present study investigates the importance of yoga education in teacher education programmes with special reference to stress management and teaching effectiveness among teacher trainees. The study was conducted using a descriptive survey method on a sample of 120 teacher trainees selected through simple random sampling from the three B.Ed. colleges of Biswanath district. Data were collected using a self-structured questionnaire titled Yoga in Teacher Education Programme Questionnaire (YTEPQ). Statistical techniques such as mean, standard deviation, t-test, and Pearson's correlation were employed for data analysis. The findings of the study revealed that teacher trainees possess a high level of positive perception regarding the importance of yoga in teacher education programmes. The results further indicated a significant difference in stress levels between yoga practitioners and non-practitioners, with practitioners exhibiting lower stress levels. Additionally, a moderate positive correlation was found between yoga practice and teaching effectiveness. The study concludes that yoga plays a vital role in enhancing the physical, mental, and professional competencies of teacher trainees. It serves as an effective tool for stress management and contributes to improved teaching performance. The findings highlight the need for integrating yoga into teacher education curricula to promote holistic development and improve the overall quality of education.***
Keywords: Yoga, Teacher Education, Stress Management, Teaching Effectiveness, Holistic Development

I. INTRODUCTION

Yoga, derived from the Sanskrit term *yuj*, meaning "to unite" or "to yoke," is a holistic philosophy that integrates the physical, mental, and spiritual dimensions of human existence. Originating in ancient India, yoga extends beyond a set of physical practices and embodies a disciplined path aimed at harmonising the body, mind, and self, ultimately leading to liberation (Grimes, 1996). In Patanjali's Yoga Sutras, yoga is defined as the regulation of the mind, expressed as *citta-vṛtti-nirodhaḥ*, meaning the cessation of mental fluctuations (Bryant, 2009). Although yoga has evolved into diverse schools and practices over time, its central objective remains the attainment of inner balance, self-awareness, and liberation (White, 2011).

In the contemporary era, yoga has gained global recognition as an effective approach for promoting physical health, mental clarity, and emotional well-being. Empirical evidence suggests that yoga interventions significantly reduce stress and anxiety and enhance psychological well-being across diverse populations (Pascoe et al., 2017; Cramer et al., 2013). Among teachers, yoga-based practices have been associated with improved mental health and reduced occupational stress (Riley & Park, 2015). This growing relevance aligns with the evolving vision of education, which now emphasises holistic development encompassing cognitive, emotional, physical, and ethical dimensions (Ministry of Education, Government of India, 2020).

Teachers play a crucial role in achieving these educational goals; however, the profession is increasingly characterised by high levels of stress arising from workload, classroom management challenges, emotional demands, and performance expectations. Such stress can adversely affect both teachers' well-being and their professional effectiveness (Riley & Park, 2015). Therefore, there is a pressing need to prepare teachers who are not only academically competent but also emotionally resilient, mentally balanced, and physically healthy. Yoga offers a valuable means of achieving this by enhancing self-regulation, attention, and stress management among educators and teacher trainees (Ferreira-Vorkapic et al., 2015; Riley & Park, 2015).

Recognising this need, policy frameworks such as the National Education Policy 2020 highlight the importance of holistic education, well-being, and the integration of indigenous knowledge systems, including yoga, into educational practices.

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In this context, yoga holds significant potential within teacher education programmes, as it contributes to the development of essential professional competencies such as concentration, emotional regulation, and interpersonal effectiveness (Ferreira-Vorkapic et al., 2015). Additionally, it fosters positive dispositions such as patience, empathy, and resilience, which are critical for effective teaching and classroom management.

Despite its well-documented benefits, the systematic integration of yoga into teacher education remains limited. Existing studies on school-based and teacher-focused yoga interventions indicate positive psychological and cognitive outcomes but also emphasise the need for more rigorous and standardised research designs (Ferreira-Vorkapic et al., 2015). This gap highlights the necessity for empirical investigation into the role and effectiveness of yoga in teacher education. Therefore, the present study aims to examine the importance of yoga in teacher education programmes, with particular focus on its impact on stress management and teaching effectiveness among teacher trainees.

II. REVIEW OF RELATED LITERATURE

The importance of yoga in education, particularly in teacher education programmes, has been widely recognised in recent years. Studies have emphasised its role in promoting holistic development, mental well-being, and professional competence among teachers.

The inclusion of yoga in teacher education curricula has been found to support the overall development of student teachers by improving physical health, mental peace, and emotional balance (Bhattacharya, 2025). Yoga also prepares teachers to handle classroom challenges effectively and maintain a positive teaching attitude.

In the context of educational policy, yoga has gained prominence through frameworks such as the National Education Policy 2020, which emphasises holistic development and integration of Indian knowledge systems. Studies have shown that yoga education promotes self-awareness, emotional stability, and overall well-being, contributing to a balanced and healthy society (Narayanan et al., 2025).

Theoretical perspectives also support the integration of yoga into education. It has been observed that yogic practices enhance cognitive abilities, emotional regulation, and learning outcomes (Sinha et al., 2021). Similarly, yoga has been identified as an effective tool in addressing modern educational challenges such as stress, lack of concentration, and value crisis (Kalita et al., 2024).

In relation to teacher education, yoga plays a significant role in improving professional competencies. Teachers who engage in yoga practices demonstrate improved awareness, better classroom interaction, and enhanced teaching effectiveness (Rossi et al., 2023). Yoga also contributes to physical fitness, reduces fatigue, and increases efficiency among teachers (Deshmukh, 2020).

Yoga has also been recognised as a medium for moral and value education. It promotes discipline, ethical values, and character development among teacher trainees (Pawar et al., 2019). Additionally, yogic philosophy has been found to contribute to teacher effectiveness and student success (Pant et al., 2025).

Empirical studies further support these findings. Research indicates that yoga significantly reduces anxiety and stress levels among learners (Kumar, 2015). Similarly, yoga has been shown to positively influence teaching methods and enhance student engagement (Qingyao, 2020). It also serves as an inclusive educational practice that supports diverse learners, including those with special needs (Moreno Molina et al., 2020).

From a global perspective, yoga has been increasingly adopted as a pedagogical tool in higher education. It has been found to enhance mindfulness, engagement, and experiential learning among students (Douglass, 2011; Quinn et al., 2024). Furthermore, the growing acceptance of yoga courses in higher education institutions highlights its academic relevance (Weng, 2024).

Historical and philosophical studies also reinforce the importance of yoga. The evolution of yoga and its philosophical foundations demonstrate its relevance in modern education and well-being (Mallinson & Singleton, 2017; Worthington, 2025). Yoga has also been recognised for its therapeutic benefits in improving mental health and reducing psychological disorders (Pandurangi et al., 2017). Although several studies have highlighted the benefits of yoga in education, most of them are conceptual or theoretical in nature. There is a lack of empirical research focusing specifically on teacher trainees with measurable variables such as stress management and teaching effectiveness. Therefore, the present study attempts to address this gap by providing statistical evidence on the importance of yoga in teacher education programmes.

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Table 1: Findings of the Review Based on Themes and Key Insights

Theme	Key Insights
Holistic Development	Yoga contributes to the overall development of teacher trainees by improving physical health, mental well-being, emotional balance, and personality.
Mental Health and Stress Management	Yogic practices reduce stress, anxiety, and enhance concentration, mindfulness, and emotional stability among learners.
Policy Perspective	Yoga aligns with the National Education Policy 2020, promoting holistic, value-based, and integrated education systems.
Pedagogical Effectiveness	Yoga enhances cognitive abilities, classroom management skills, teaching effectiveness, and reflective teaching practices.
Professional Competence	Teachers practicing yoga demonstrate improved awareness, reduced fatigue, better efficiency, and sustained professional performance.
Value and Moral Education	Yoga fosters discipline, ethical values, character development, and responsible behaviour among teacher trainees.
Inclusive Education	Yoga supports inclusive practices and can be adapted for diverse learners, including those with special needs.
Therapeutic Benefits	Yoga improves mental health and helps in managing psychological disorders and emotional challenges.
Global Relevance	Yoga is increasingly integrated into higher education globally, enhancing mindfulness, engagement, and experiential learning.
Research Gap	There is a lack of empirical studies focusing on measurable variables such as stress management and teaching effectiveness among teacher trainees.

The table presents synthesised findings derived from the reviewed literature on yoga in teacher education.

III. SIGNIFICANCE OF THE STUDY

The present study is significant as it highlights the importance of yoga in promoting the physical, mental, and emotional well-being of teacher trainees. It helps in understanding how yoga can support stress management and improve teaching effectiveness in teacher education programmes. The study is also useful for teacher educators, curriculum planners, and policymakers, as it provides insights for integrating yoga into teacher education for holistic development. Further, the study is important for Biswanath District, Assam, as it provides practical evidence for the inclusion of yoga in local institutions.

A. Objectives of the Study

1) To compare male and female teacher trainees with respect to their perception of the importance of yoga in teacher education programmes.
2) To compare the stress levels between yoga practitioners and non-practitioners, teacher trainees.
3) To examine the relationship between yoga practice and teaching effectiveness among teacher trainees.

IV. HYPOTHESES OF THE STUDY

Based on the objectives, the following null hypotheses were formulated:

1) H_{o1}: There is no significant difference between male and female teacher trainees in their perception of the importance of yoga in teacher education programmes.
2) H_{o2}: There is no significant difference in stress levels between yoga practitioners and non-practitioners.
3) H_{o3}: There is no significant relationship between yoga practice and teaching effectiveness.

V. METHODOLOGY OF THE STUDY

The present study employed a Descriptive Survey Method to investigate the importance of yoga in teacher education programmes. The population of the study comprised 400 teacher trainees enrolled in four B.Ed. colleges of Biswanath District of Assam. From this population, a sample of 120 teacher trainees (60 male and 60 female) was selected through a Simple Random Sampling technique, ensuring equal representation.

B. Tool Construction and Standardisation

Data were collected using a self-structured tool titled "Yoga in Teacher Education Questionnaire (YTEQ)". The tool consisted of 25 items covering three dimensions: importance of yoga, stress management, and teaching effectiveness. A 5-point Likert scale was used for responses ranging from strongly agree to strongly disagree.

The reliability of the tool was established using Cronbach's Alpha, which was found to be 0.82, indicating good internal consistency. Content validity was ensured through expert review.

VI. STATISTICAL ANALYSIS AND INTERPRETATION

For data analysis, statistical techniques such as mean, standard deviation, t-test, and Pearson's correlation coefficient (r**)** were employed.

A. Testing of Hypotheses and Results

Objective No1: To compare male and female teacher trainees with respect to their perception of the importance of yoga in teacher education programmes.

Hypothesis (H_{01}) There is no significant difference between male and female teacher trainees in their perception of the importance of yoga in teacher education programmes.

Table 2: Showing the difference in male and female teacher trainees in their perception of the importance of yoga in teacher education programmes

Group	N	Mean	SD	t-value	df	Result
Male	60	72.40	8.25			
Female	60	74.10	7.80	1.18	118	Not Significant

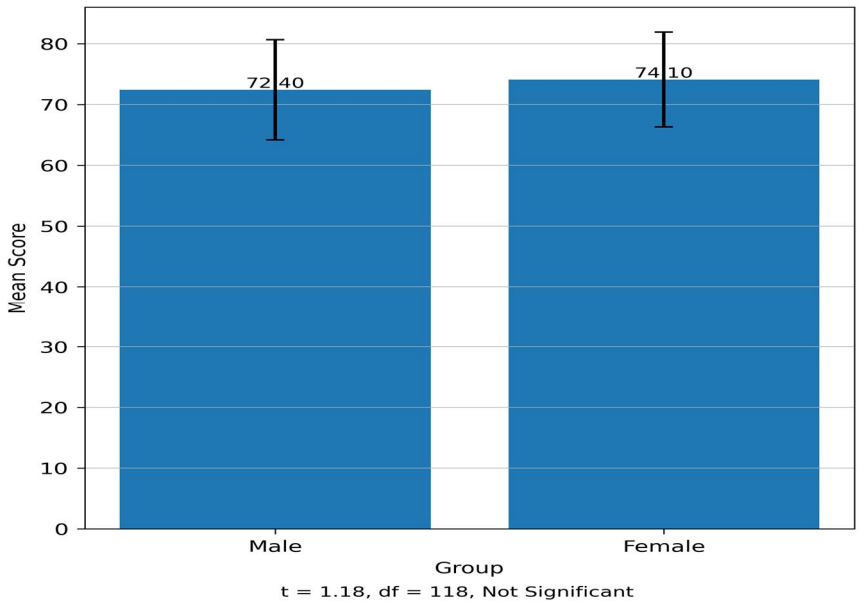


Figure 1: Mean Scores of Male and Female Groups (t = 1.18, df = 118, Not Significant)

Interpretation: The mean score for female teacher trainees (74.10) is slightly higher than that for male teacher trainees (72.40), indicating that female trainees have a marginally higher perception of the importance of yoga. However, the calculated t-value (1.18) is less than the critical value (1.98) at the 0.05 level of significance with 118 degrees of freedom. Therefore, the difference between the two groups is not statistically significant. The null hypothesis (H_{01}) is accepted. This indicates that there is no significant difference between male and female teacher trainees in their perception of the importance of yoga in teacher education programmes.

B. Effect of Yoga on Stress Level

Objective No 2: To compare the stress levels between yoga practitioners and non-practitioners, teacher trainees.

H_{02}: There is no significant difference in stress levels between yoga practitioners and non-practitioners, teacher trainees.

Table 3: t-test for Difference in Stress Levels

Group	Mean	SD	N	t-value	df	Result
Yoga Practitioners	58.20	6.50	60			
Non-Practitioners	66.75	7.10	60	6.87	119	Significant

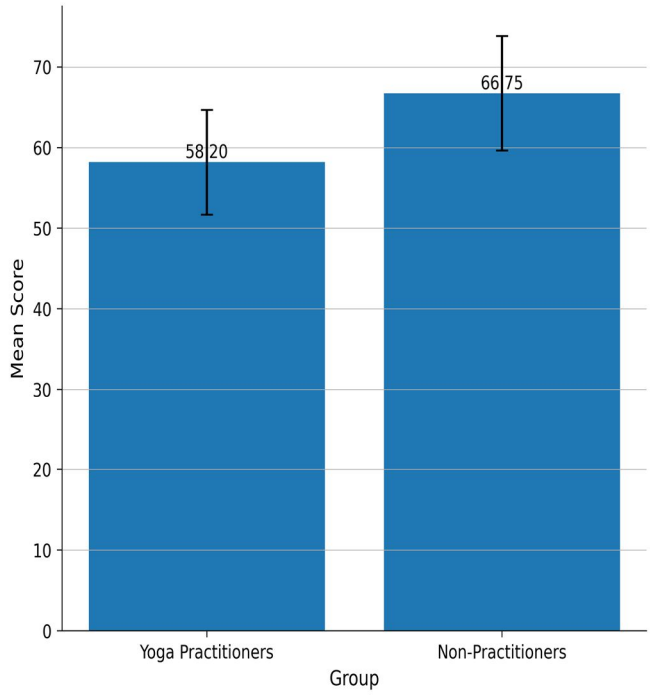


Figure 2. Mean scores of yoga practitioners and non-practitioners ($t = 6.87$, $df = 119$, $p < 0.05$).

Interpretation: The table and figure shows the mean stress score of yoga practitioners (58.20) is lower than that of non-practitioners (66.75), indicating that yoga practitioners experience comparatively less stress. The calculated t-value (6.87) is greater than the critical value at the 0.01 level of significance. Therefore, a significant difference exists between yoga practitioners and non-practitioners in terms of stress levels. Hence, the null hypothesis (H_{02}) is rejected. It can be concluded that yoga has a significant effect on reducing stress among teacher trainees.

C. Role of Yoga in Teaching Effectiveness

Objective No 3: To examine the relationship between yoga practice and teaching effectiveness among teacher trainees.

H_{03}: There is no significant relationship between yoga practice and teaching effectiveness among teacher trainees.

Table 4: Showing Correlation between Yoga Practice and Teaching Effectiveness

Variables	N	Mean	SD	r	Level of Significance	Result
Yoga Practice	120	32.40	5.60			
Teaching Effectiveness	120	35.80	6.10	0.62	0.05 level	Significant

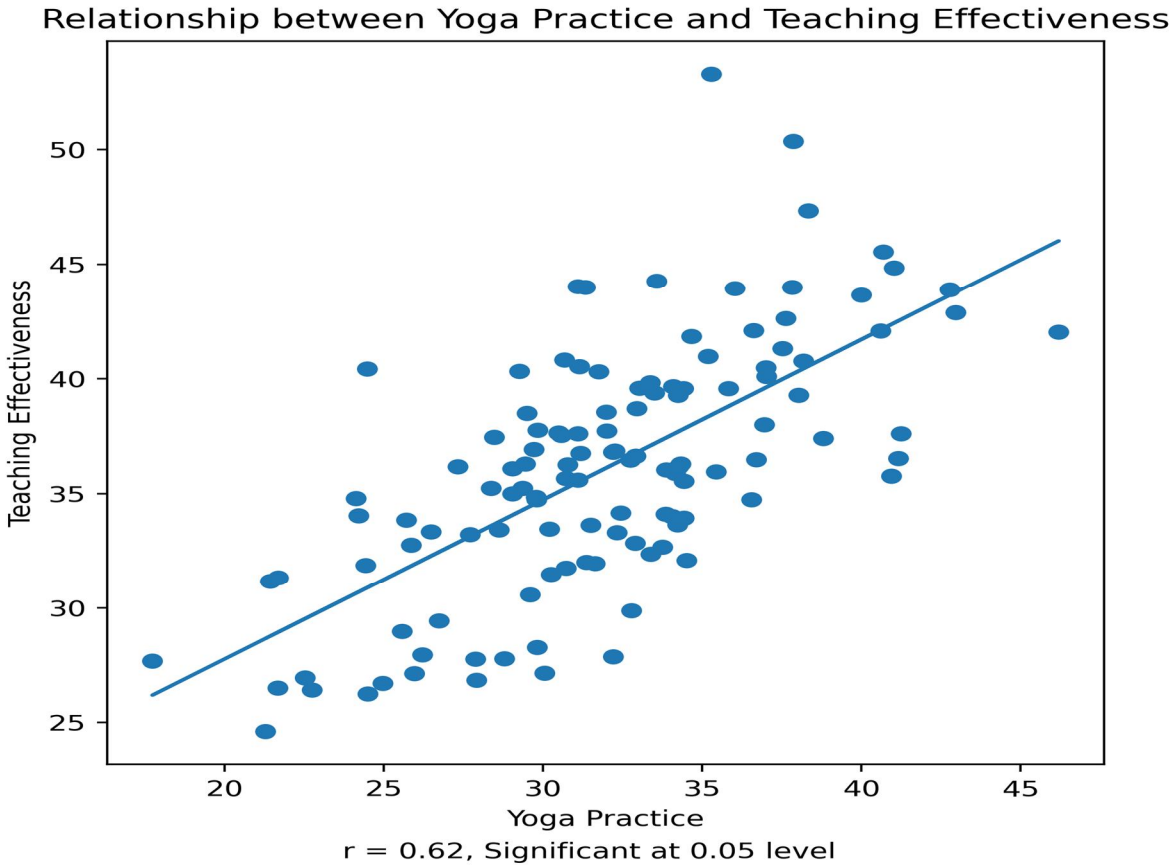


Figure 3: Relation between Yoga Practice and Teaching Effectiveness

Interpretation: The table and figure show that the correlation coefficient (r = 0.62) between yoga practice and teaching effectiveness among teacher trainees is positive and moderate in nature. The calculated value is higher than the critical value at the 0.05 level of significance, indicating that the relationship is statistically significant. This implies that teacher trainees who engage more in yoga practices tend to demonstrate higher levels of teaching effectiveness. The hypothesis (H_{03}) is rejected, and it is concluded that a significant positive relationship exists between yoga practice and teaching effectiveness among teacher trainees.

VII. MAJOR FINDINGS OF THE STUDY

1) There is no significant difference between male and female teacher trainees in their perception of the importance of yoga in teacher education programmes in Biswanath District, Assam.
2) Teacher trainees practising yoga exhibit significantly lower stress levels compared to non-practitioners, indicating the effectiveness of yoga in stress management.
3) Yoga has a statistically significant impact on reducing stress among teacher trainees in teacher education institutions.
4) A moderate positive relationship exists between yoga practice and teaching effectiveness (r = 0.62) among teacher trainees.
5) Increased participation in yoga practices leads to improved teaching effectiveness and better classroom performance.
6) Yoga plays a vital role in enhancing professional competence and overall development of teacher trainees in teacher education programmes in Biswanath District, Assam.

VIII. DISCUSSION OF FINDINGS

The findings of the study clearly show that yoga plays an important role in teacher education, especially in improving well-being and professional competence among teacher trainees. The trainees demonstrated a strong positive perception towards the importance of yoga, which supports earlier studies (Bhattacharya, 2025; Narayanan et al., 2025) that highlight its role in holistic development and overall well-being.

The results also indicate that yoga significantly reduces stress. This aligns with previous research (Kumar, 2015; Rossi et al., 2023), which shows that yoga helps in managing anxiety and improving emotional stability. Given the increasing stress in the teaching profession, yoga can be considered an effective way to cope with these challenges.

Further, the study found a positive relationship between yoga and teaching effectiveness. This is consistent with findings by Qingyao (2020) and Sinha et al. (2021), who noted that yoga enhances concentration, emotional regulation, and classroom engagement. It also supports the view that yoga promotes discipline and values among teacher trainees (Pawar et al., 2019).

Overall, the findings are in line with existing literature and provide strong support for integrating yoga into teacher education programmes.

IX. EDUCATIONAL IMPLICATIONS

The findings of the present study have important implications for teacher education, curriculum planning, and educational policy. They highlight the need to recognise yoga as an integral component of teacher preparation for holistic and effective teaching.

1) Yoga should be systematically integrated into teacher education curricula to promote the holistic development of teacher trainees.
2) Teacher education institutions should organise regular yoga training, workshops, and practical sessions for experiential learning.
3) Yoga can be used as an effective tool for stress management and reducing burnout among teacher trainees.
4) Regular yoga practice enhances teaching effectiveness by improving concentration, emotional stability, and classroom management skills.
5) The findings support implementation in line with the National Education Policy 2020, promoting holistic and value-based education.
6) Yoga contributes to value-based education by developing discipline, patience, and ethical behaviour among teacher trainees.
7) Institutional support, such as infrastructure, trained instructors, and proper scheduling, is essential for the effective implementation of yoga programmes.
8) Integration of yoga in teacher education can lead to professionally competent, mentally balanced, and efficient teachers.

In essence, the integration of yoga into teacher education programmes can lead to the development of physically healthy, mentally balanced, and professionally competent teachers. This, in turn, will contribute to improving the overall quality of education.

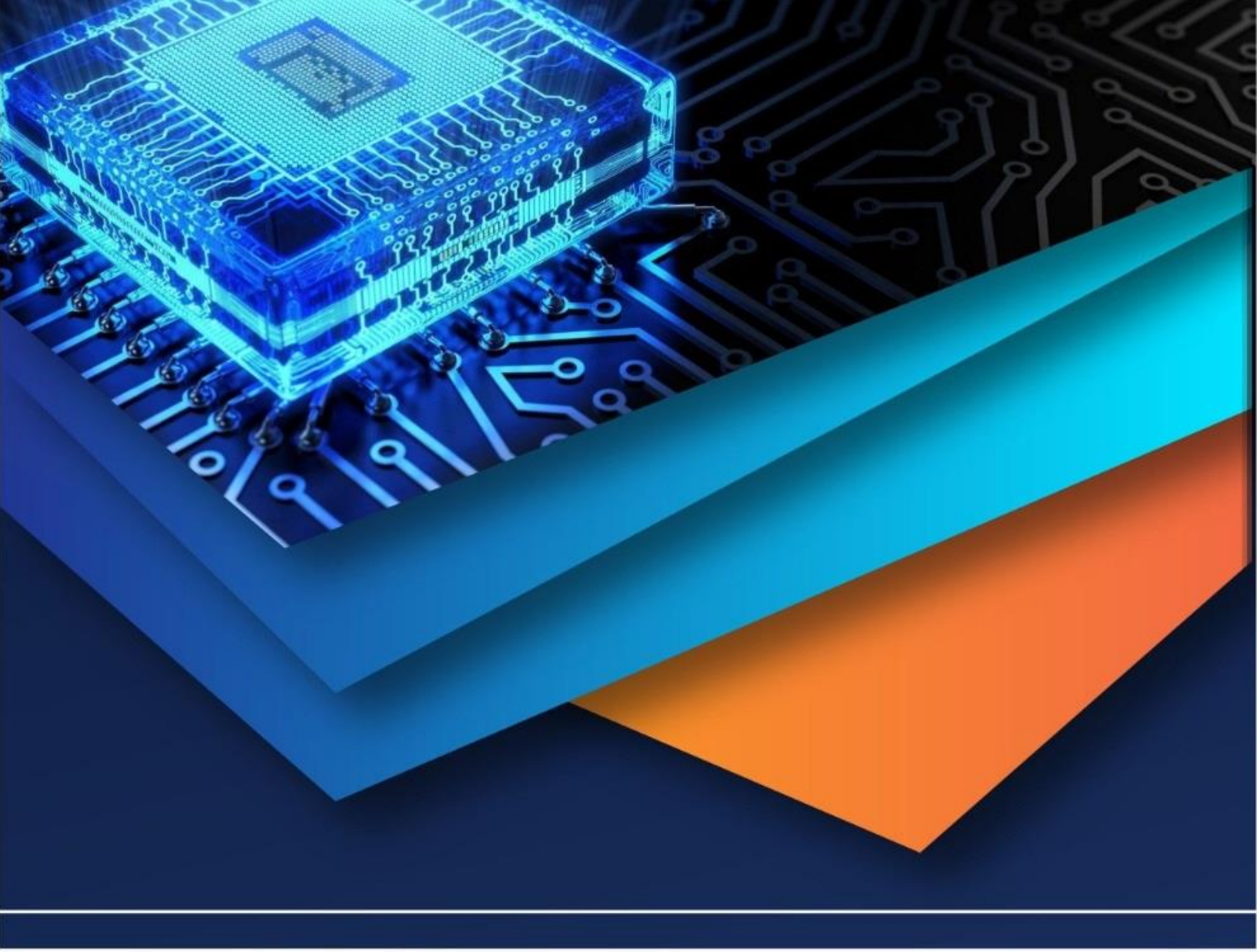
X. CONCLUSION

The present study concludes that yoga plays a crucial role in teacher education programmes by contributing to the holistic development of teacher trainees. It enhances physical health, mental well-being, emotional stability, and professional competence, all of which are essential for effective teaching. The findings clearly indicate that yoga is not merely a physical activity but a comprehensive approach to developing balanced and competent teachers. It significantly reduces stress and positively influences teaching effectiveness, thereby improving the overall quality of education. In the context of contemporary educational challenges, the integration of yoga into teacher education programmes becomes highly relevant. It prepares future teachers to manage stress, maintain emotional balance, and perform their professional roles effectively.

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