iJRASET
International Journal For Research in Applied Science and Engineering Technology



INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Volume: 11 **Issue:** XII **Month of publication:** December 2023

DOI: https://doi.org/10.22214/ijraset.2023.57811

www.ijraset.com

Call: 08813907089 | E-mail ID: ijraset@gmail.com

International Journal for Research in Applied Science & Engineering Technology (IJRASET)
ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.538
Volume 11 Issue XII Dec 2023- Available at www.ijraset.com

Role of Artificial Intelligence in Transforming Work Engagement on Unorganised Sector

Hefsiba Joseph M L[1], Dr. Lissy Bennet[2]
[1]*Research scholar, Government College for Women, University of Kerala*
[2]*Assistant Professor, All Saint's College, University of Kerala*

Abstract: ***Technological advancement made a tremendous change among the workers. In India majority of the workers were in unorganized or in the informal sector. While considering our traditional economic system, these workers were considered as the margin of the economy. But artificial intelligence (AI) have the possibility to take these workers to the mainstream of the economy. Even these changes happen but still some of the people were also under the disparity to access these technologies effectively. If they use artificial intelligence (AI) at its full potential these workers can increase their productivity to a great extent. Work engagement means a person's emotional attachment to his work; because he believes that his action can make changes in the current scenario. A highly engaged worker is considered an asset to the organization. By utilizing the possibilities of AI the workers in the unorganized sector can also create new trends of jobs. Even though these changes happened, some of the workers were struggling to adapt to these changes. This study mainly focused on how these issues can be solved through work engagement, how to increase the number of workers, and how to get them into the mainstream of the economy. The study primarily focused on the relationship between work engagement and the adoption of AI technology in the unorganized sector.***
Key Terms: Artificial intelligence, work engagement, informal workers, adaptations, economy.

I. INTRODUCTION

In India the majority of the workers were found in the informal sector, and these workers were operating outside the scope of traditional labour structure. These workers include street venders, freelancers, gig economy participants, and others engaged in various informal economic activities (NITI Aayog, 2023). Development in technology sector has impacted on this sector to cope up with the changes. Now a days AI has great influence on these workers. Because Artificial Intelligence make a spark on all the sectors, offering both opportunities and challenges (EASHW, 2022). Most of them largely depend on technology to came forward to their respective fields. Ans also they still face many problems too. While concentrated on the works perspective the AI would helps to these workers to maintain the benefits such as superior work life balance, healthier lifestyle, increased flexibility and autonomy, and the promotion of the wellbeing of these workers (Braganza et al., 2021).

While AI introduce efficiency and innovation. Its integration will affect the engagement of the workers. An engaged worker be considered as the asset to the respective sector. Because they always focused that their contribution will make certain changes to the respective sector. An engaged worker be positive, affective motivational and also have a high level of dedication (Lakhanpal, 2018). The engagement will change as per the changes in working condition, personal characteristics, and behaviour strategies (Bakker & Albrecht, 2018). For that purpose, these workers needed to be engaged physical, emotional and cognitively. For informal sector workers both these levels of engagement were very important. The study primary relies on the examining how AI technologies affect the work engagement of the gig workers, and how influence their transition from the periphery to a more central role in the economy.

II. REVIEW OF LITERATURE

Aleem et al., (2023) made a model to understand the influence of AI to remote workers during COVID 19 pandemic. The study found that a crisis had been created due to the shift of working cultures to remote workers because of the pandemic.

Wang et al., (2021) discussed the acceleration of AI in workers engagement at hospitality sector. This study focused on attitude, satisfaction and user intention with AI technology. It concluded that techno-overloaded and techno-stressor play a mediatory role for work engagement. The finding suggest that increasing engagement will lead to positive attitude and satisfaction and higher user intention. The study only considers the health sector and also trying to figure out the mediating effect of engagement.

Friedman, (2014) conducted a study on Engaging the Workforce During Tough Times in which he discuss about creating a successful work environment by three engagement outcome. He emphasises that engaging employees is not a time-consuming or difficult task that necessitates a complete rethinking of the company's engagement strategy.

©IJRASET: All Rights are Reserved

It's usually a matter of refocusing efforts or supplementing them with new ones. The keys to engaging employees are to connect with them individually, show real interest in them, and provide a safe environment for them to grow.

III. STATEMENT OF THE PROBLEM

The unorganised sector workers like freelancers, delivery workers, content creators, online sellers, crowed sourced labour are considered as the major part of the workforce. These workers doesn't get the benefits like the formal workers(ILO, 2005). Now a days the Artificial intelligence (AI) create a greater influence on these workers. It helps to take automated or semi-automated decisions or provide the necessary information to take the proper decisions

Traditional methods of engagement and skill enhancement are mainly focused othe formal sector workers, and they are failing to address the dynamic and diverse need of the unorganised sector workers. Moreover the technological infrastructure and resources in these setting shows the disparities and the conventional solution that needed to be implemented for improving the work engagement. As such there is a need for exploring the potential role of Artificial intelligence in revolutionalising work engagement for the informal workers. This involves identifying and addressing specific challenges faced by this diverse workforce segment, while also considering ethical implications, technological accessibility, and the creation of inclusive and adaptable Ai driven solution tailored to the unique context of the unorganised sector.

A. Significance of The Study

In comparison to the past, the informal sector now exists and operates in a completely different environment. To face the problems, informal sector workers must be engaged and channelled with the goal of transforming them into dynamic and enthusiastic change agents. The study is undertaken to gauge the after effect of the AI on the social and economic lives of the commoners.

B. Scope of The Study

The unorganised labour force consists of people working in unorganised enterprises or households, excluding regular workers who get benefits under the social protection programme, who do not have access to employers' employment or social security services (ILO, 2005). The informal workers like freelancers, Delivery workers, Content creators, online sellers, crowd sourced labors are considered as the major part of the workforce.

C. Objectives of The Study

1) To understand the work engagement factors that affected workers in the informal sector.
2) To examine the influence if AI in the informal sector.

D. Methodology of The Study

The current paper undertakes a conceptual work where multiple streams of literature are integrated to present a rather holistic yet critical overview of the relationship between AI and work engagement among the informal workers.

IV. INFORMAL WORKERS

At the start of the 1970s, the concept of the informal or informal sector began to gain popularity around the world. The informal sector plays a critical role in the Indian economy and requires special attention. Changes in commerce and technology, combined with growing global connectivity, have posed a challenge to worker income, particularly in emerging countries where the informal sector is fast rising due to low job quality, and India is no different. In the informal sector, there are numerous issues. The unorganised labour force consists of people working in unorganised enterprises or households, excluding regular workers who get benefits under the social protection programme, who do not have access to employers' employment or social security services (ILO, 2005)

A. Work Engagement

Work engagement is a term in human resources (HR) that represents a worker's level of dedication and enthusiasm to their job. Workers that are engaged care about their jobs and believe that their efforts contribute something different. A engaged worker is motivated by more than just a pay check, and they may view their well-being to be tied to their productivity, and hence crucial to their success. Since the 1990s, work engagement has been a part of management philosophy, and it has been increasingly popular in the 2000s. Work engagement refers to the level of mental and emotional attachment workers have to their jobs, their teams, and their company.

Satisfied workers vary from engaged workers in that a satisfied worker will work hard only for the money that is being paid to him. They merely carry out the tasks that are expected of them. Work engagement encompasses more than just worker satisfaction and retention. AI-driven advancements might impact the levels of engagement among these workers. For instance, AI tools might streamline tasks, potentially affecting the sense of fulfillment or connection that workers derive from their roles. Conversely, AI could also enhance certain aspects of their work, fostering a deeper sense of engagement by allowing them to focus on more value-added tasks. impact of AI on the motivation, dedication, and sense of purpose among informal workers. It underscores the need to balance technological integration with preserving the intrinsic motivation and commitment that drives these workers within the informal labor sector.

V. LEVELS OF ENGAGEMENT

Work engagement is a metric that gauges how happy workers are with their workplace. Workers are divided into four groups based on their impressions of their workplace.

A. Workers that are Highly Engaged

Highly engaged informal workers exhibit strong positive sentiments toward their workplace. They feel a deep connection to their teams, derive satisfaction from their work, and hold favorable opinions about work environment. These individuals are not just dedicated but also act as advocates, promoting their workplace to others. Their enthusiasm motivates their peers, contributing significantly to the institution's success.

B. Workers that are Moderately Engaged

Moderately engaged informal workers possess favorable views of their workplace but also acknowledge areas for improvement. While they enjoy their work, they may feel there are constraints or aspects preventing them from reaching full engagement. This group might be less inclined to seek additional responsibilities and could exhibit lower levels of performance due to perceived barriers within the organization (Febriansyah et al., 2018).

C. Workers Who are Barely Engaged

Workers that are barely engaged exhibit disinterest in their workplace. They lack motivation and might perform only the minimum required or even less. This group poses a risk of attrition as they might actively seek alternative employment opportunities, further impacting productivity (Jaharuddin & Zainol, 2019).

D. Workers that are Disengaged

Disengaged informal workers hold negative perceptions about their workplace. They are detached from the organization's mission, goals, and future. Their lack of interest in their roles and obligations poses a challenge, potentially affecting the morale and productivity of their peers. Managing disengaged workers becomes crucial to prevent their negative attitudes from affecting the overall work environment(Mittal, 2017). AI-driven changes might affect the engagement levels among these workers. For instance, improved tools or streamlined processes might positively impact highly and moderately reengaged workers by enhancing their job satisfaction. Conversely, if AI changes result in increased monotony or decreased autonomy, it could further disengage workers or impede their ability to reach higher levels of engagement. Recognizing these distinct levels of engagement among informal workers provides insights into tailoring AI interventions that not only enhance productivity but also foster a more engaged and satisfied workforce within the informal labor sector(Kahn, 1990).

VI. FACTORS OR DRIVERS OF ENGAGEMENT

It's critical to understand how AI inspires workers and drives them to be personally committed in their work to promote work engagement. This is done to improve their feeling about their position, duties, companions, customers and the organizational culture. However, there are no uniform factors that influence worker engagement.

A. Work Environment

For informal workers affected by AI, the work environment might not necessarily be a traditional office space. It could involve remote locations, online platforms, or shared workspaces. Ensuring access to necessary technological tools, fair work conditions, and opportunities for collaboration (even in virtual spaces) becomes crucial. (Khandekar, 2018).

©IJRASET: All Rights are Reserved | SJ Impact Factor 7.538 | ISRA Journal Impact Factor 7.894 |

B. Reward and Recognition

Informal workers may not always have fixed salaries or benefits. AI might influence how tasks are rewarded or recognized. Platforms using AI can track and acknowledge achievements, offer incentives or bonuses, or provide access to better opportunities based on performance, which can significantly impact engagement and motivation. (Kumarasamy et al., 2022).

C. Training and Development

For informal workers engaging through AI platforms, tailored training modules or skill development programs integrated into these platforms could enhance their capabilities. Short, interactive learning sessions or AI-powered personalized recommendations for skill enhancement might be more practical for workers in informal sectors. (Arslan et al., 2022).

D. Job Characteristics

While intrinsic motivation remains crucial, the nature of tasks for informal workers affected by AI might involve gig-based work or short-term projects. Ensuring these tasks have clear objectives, autonomy, significance, and feedback loops can enhance their engagement despite the transient nature of their roles.(Khandekar, 2018).

E. Superior Support

In an AI-influenced setting, platforms could provide instant assistance or guidance to informal workers, mimicking the support of a supervisor. This might include AI-driven chatbots or support systems to address queries and offer guidance promptly.

F. Autonomy

AI can empower informal workers by providing them with tools and decision-making support rather than micromanaging their tasks. This can foster a sense of ownership and commitment to their work.

G. Capacity

Ensuring easy access to AI tools and resources can enhance the capacity of informal workers, enabling them to deliver efficiently without barriers.

H. Relationships Between Coworkers

For informal workers engaged through AI platforms, fostering virtual communities or forums where they can interact, share experiences, and collaborate might emulate the coworker relationships found in traditional workplaces.

I. Fairness

Engagement is influenced by more than just coworker relationships. Workers' perceptions of how equitably they (and others) are treated inside the organisation are also important. This driver reflects several critical characteristics, including how workers feel about the task they're assigned, what they think of their pay, and how they assess the level of respect they receive from their bosses and coworkers. Leaders, take note: Workers are always comparing their work situations to those of their peers, so it's critical to establish clear goals and a consistent compensation structure.

J. Feedback and Goal Assist

AI algorithms can provide real-time performance feedback and assist in setting and achieving goals, offering support similar to what a traditional supervisor might provide.

K. Availability of the Leader

In an AI-driven context, leaders might manifest as the developers or administrators of these AI platforms. Their availability, transparency, and integrity in developing and maintaining these systems could impact workers' perceptions.

L. Learning and Development and Role clarity

These aspects would need adaptation to suit the transient, task-based nature of informal work settings influenced by AI. Platforms or systems could emphasize continual learning opportunities, create psychologically safe environments, and ensure clarity in task descriptions and expectations.

©IJRASET: All Rights are Reserved | SJ Impact Factor 7.538 | ISRA Journal Impact Factor 7.894 |

VII. ARTIFICIAL INTELLEGENCE AND INFORMAL WORKERS

1) *Weak AI vs. Strong AI:* Understanding the distinction between Weak AI and Strong AI provides insights into the capabilities and limitations of AI systems. For informal workers, the prevalence of Weak AI, which simulates intelligent behavior without consciousness or understanding, might influence their interactions with AI-driven tools. For instance, using chatbots or automated systems for job-related inquiries or tasks might offer apparent intelligence but lacks human-like consciousness. This distinction underscores the importance of managing expectations regarding AI's capabilities, especially in supporting or augmenting the work of informal workers(NITI Aayog, 2018).
2) *Narrow AI vs. General AI:* The differentiation between Narrow AI and General AI is pivotal in gauging the breadth of AI's utility for informal workers. Narrow AI, limited to specific tasks or domains, might present immediate applications, such as enhancing specific job functions or streamlining certain work processes for informal laborers. For example, AI-driven tools catering to specific tasks like inventory management for street vendors or optimizing delivery routes for gig economy workers fall under Narrow AI. However, the potential of General AI, which could perform various tasks across diverse environments, poses considerations for the future of work among informal laborers. The advent of such advanced AI might reshape job scopes, skill requirements, and employment dynamics for these workers (NITI Aayog, 2018).
3) *Superintelligence:* The concept of Superintelligence, depicting AI surpassing human intelligence, remains speculative but prompts discussions about the potential far-reaching impacts on work and society. For informal workers, the advent of Superintelligence could signify significant shifts in job landscapes, potentially altering the nature of informal labor or creating new opportunities. Understanding the hypothetical implications of Superintelligence on job displacement, skill demands, and socio-economic structures becomes crucial in anticipating the evolving role of informal workers in an AI-driven world (NITI Aayog, 2018).

VIII. RISK FOR WORKERS

1) Intensification of work
2) Loss of job control and autonomy
3) Dehumanisation of work
4) Datafication of work
5) Worker discrimination and use of private and sensitive data
6) Performance monitoring and impact on workers
7) Worker rating systems
8) Risky and unsafe worker behaviour
9) worker reskilling and worker deskilling
10) Lack of transparency and stress
11) Power asymmetry

IX. FINDINGS

1) For informal workers, the prevalence of Weak AI, which simulates intelligent behavior without consciousness or understanding, might influence their interactions with AI-driven tools.
2) Narrow AI, limited to specific tasks or domains, might present immediate applications, such as enhancing specific job functions or streamlining certain work processes for informal laborers.
3) General AI, which could perform various tasks across diverse environments, poses considerations for the future of work among informal laborers.
4) For informal workers, the advent of Superintelligence could signify significant shifts in job landscapes, potentially altering the nature of informal labor or creating new opportunities.
5) The intensification of workloads due to AI-driven changes, coupled with a loss of job control and autonomy, emerges as a central concern.
6) This evolution risks the dehumanization of work, potentially undermining the intrinsic aspects of job satisfaction.
7) The datafication of work activities poses threats to privacy and autonomy, while the potential for worker discrimination through the misuse of private data looms large.
8) Additionally, continuous performance monitoring under AI regimes raises stress levels and influences worker performance.

©IJRASET: All Rights are Reserved | SJ Impact Factor 7.538 | ISRA Journal Impact Factor 7.894 |

9) AI-driven rating systems and evolving skill requirements introduce unpredictability in job prospects and pose challenges in maintaining workplace morale.

10) Furthermore, the reshaping of job roles leads to both worker reskilling and deskilling, contributing to a lack of transparency and power asymmetry between AI systems and workers.

X. CONCLUSION

Artificial intelligence can be used to manage the informal workers through the work engagement practice. This occurs by motivating the workers and controlling their actions. However the issues of trust , perceived risk, and fairness play a vital role in determining whether these systems will effectively manage the workforce in long run (Hughes et al., 2018). AI technologies are rapidly permeating various facets of our daily lives, presenting a rapid evolution that transforms society at an unprecedented pace. Within work environments, the integration of AI-driven tools and techniques offers a spectrum of benefits to both workers and employers. These advantages encompass improved health and safety protocols, heightened productivity, and the streamlining of shift schedules. However, amidst these promising advancements, experts caution against the inherent potential for AI-driven technologies to perpetuate and exacerbate existing socio-economic dilemmas. This includes but is not confined to issues such as inequalities, discrimination, human rights violations, and the erosion of democratic values.

In the midst of AI's changing landscape, the significance of worker engaged for the informal labor sector cannot be overstated. Engaged signifies not only a worker's cognitive and emotional commitment but also their alignment with organizational values, collaboration for enhanced performance, and willingness to invest discretionary effort. Amidst challenges faced by unorganized sector workers, from low wages to pandemic-induced anxieties, strategies focused on fostering favorable work conditions, recognition, support, training opportunities, and job value have emerged as crucial avenues for boosting and sustaining worker engagement (Tyutyuryukov & Guseva, 2021). AI's impact on worker engaged lies in its ability to foster autonomy, positive work cultures, self-evaluation, and satisfaction, pivotal for enhancing performance within the informal labor realm (Özkiziltan & Hassel, 2021). Prioritizing worker engaged amidst AI-driven changes not only fortifies a committed and productive workforce but also bolsters the well-being and success of individuals navigating the informal labor landscape.

REFERENCES

[1] Aleem, M., Sufyan, M., Ameer, I., & Mustak, M. (2023). Remote work and the COVID-19 pandemic: An artificial intelligence-based topic modeling and a future agenda. Journal of Business Research, 154(September 2021), 113303. https://doi.org/10.1016/j.jbusres.2022.113303

[2] Arslan, A., Cooper, C., Khan, Z., Golgeci, I., & Ali, I. (2022). Artificial intelligence and human workers interaction at team level: a conceptual assessment of the challenges and potential HRM strategies. International Journal of Manpower, 43(1), 75–88. https://doi.org/10.1108/IJM-01-2021-0052

[3] Bakker, A. B., & Albrecht, S. (2018). Work engagement: current trends. Career Development International, 23(1), 4–11. https://doi.org/10.1108/CDI-11-2017-0207

[4] Braganza, A., Chen, W., Canhoto, A., & Sap, S. (2021). Productive employment and decent work: The impact of AI adoption on psychological contracts, job engagement and employee trust. Journal of Business Research, 131(August 2019), 485–494. https://doi.org/10.1016/j.jbusres.2020.08.018

[5] EASHW. (2022). Artificial intelligence for worker management: implications for occupational safety and health European Agency for Safety and Health at Work. https://doi.org/10.2802/76354

[6] Febriansyah, H., Pringgabayu, D., Hidayanti, N., & Febrianti, F. C. (2018). Enhancing the employee engagement through the organizational climate. Journal of Business and Retail Management Research, 12(3), 104–112. https://doi.org/10.24052/jbrmr/v12is03/art-09

[7] Friedman, G. (2014). Workers without employers: Shadow corporations and the rise of the gig economy. Review of Keynesian Economics, 2(2), 171–188. https://doi.org/10.4337/roke.2014.02.03

[8] Hughes, C., Robert, L., Frady, K., & Arroyos, A. (2018). Artificial intelligence, employee engagement, fairness, and job outcomes. Managing Technology and Middle-and Low-Skilled Employees, 21(3), 1–12.

[9] ILO. (2005). Waving through history : How the ILO finally got an official flag. World of Work, 54, 16–20. www.ilo.org/communication%5Cnwww.us.ilo.org

[10] Jaharuddin, S., & Zainol, L. N. (2019). The Impact of Work-Life Balance on Job Engagement and Turnover Intention.

[11] Kahn, W. A. (1990). Psychological Conditions of Personal Engagement and Disengagement at Work. In Source: The Academy of Management Journal (Vol. 33, Issue 4).

[12] Khandekar, D. (2018). Employee engagement in Nationalized banks with special reference to selected banks in Rajasthan [University of Rajasthan]. http://hdl.handle.net/10603/337464

[13] Kumarasamy, M. M., Hasbolah, F., Hamzah, H., Fazmi, K. N. M., & Omar, S. A. (2022). The Moderating role of Organisational support towards achieving a good Work life balance in the New normal: A Malaysian Lectures' Perspective. International Journal of Business and Society, 23(2), 913–930. https://doi.org/10.33736/IJBS.4845.2022

[14] Lakhanpal, Y. (2018). Work life balance among teacher educators in relation to work engagement and organizational role stress [Panjab University]. http://hdl.handle.net/10603/326673

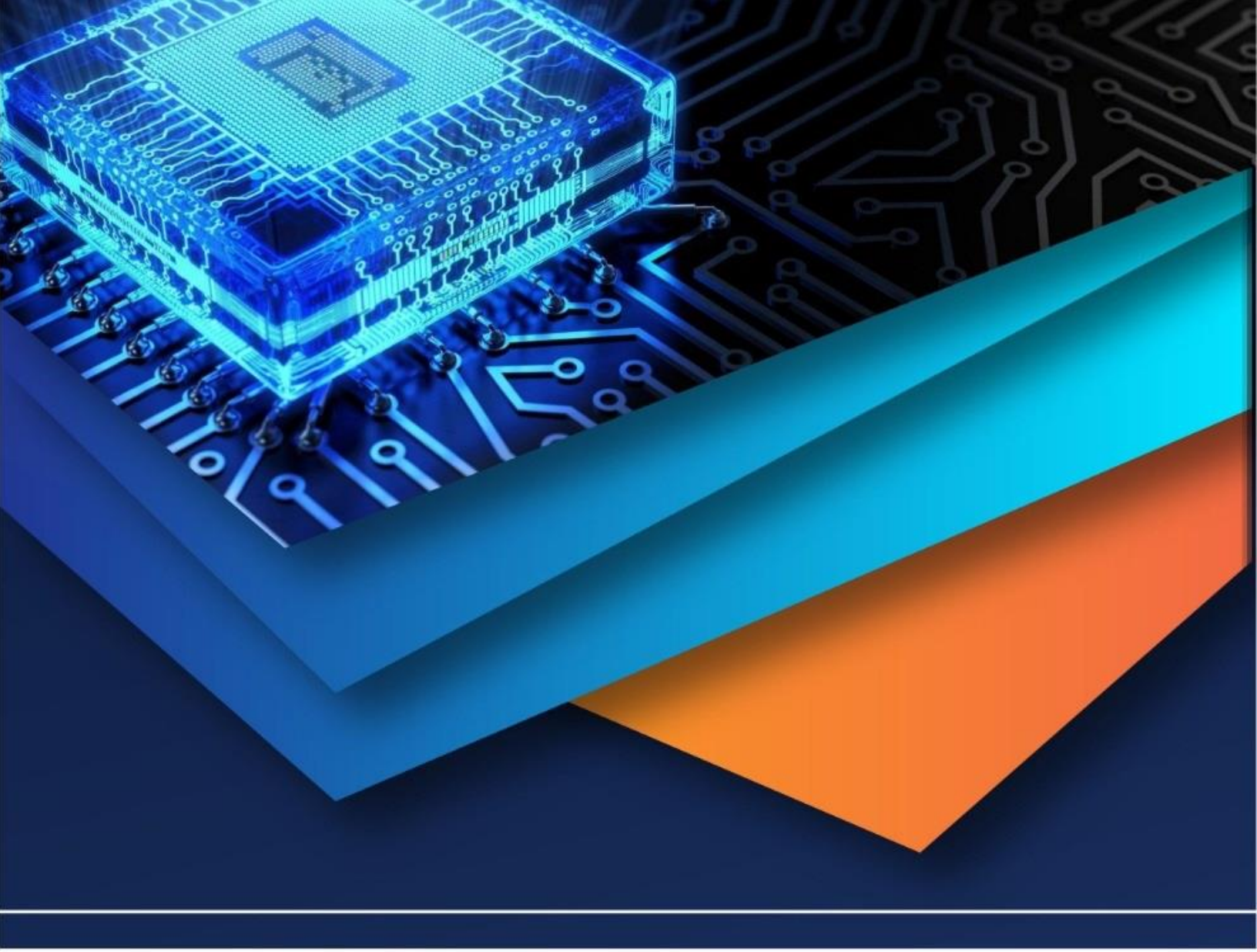
[15] Mittal, E. (2017). Employee engagement practices in banking sector a comparative study of public and private banks [Punjabi University]. http://hdl.handle.net/10603/255331

[16] NITI Aayog. (2018). National Strategy for Artificial Intelligence.

©IJRASET: All Rights are Reserved | SJ Impact Factor 7.538 | ISRA Journal Impact Factor 7.894 |

[17] NITI Aayog. (2023). Annual Report 2022-2023.
[18] Özkiziltan, D., & Hassel, A. (2021). Artificial Intelligence at Work: An Overview of the Literature. SSRN Electronic Journal, March. https://doi.org/10.2139/ssrn.3796746
[19] Tyutyuryukov, V., & Guseva, N. (2021). From remote work to digital nomads: Tax issues and tax opportunities of digital lifestyle. In IFAC-PapersOnLine (Vol. 54, Issue 13, pp. 188–193). Elsevier B.V. https://doi.org/10.1016/j.ifacol.2021.10.443
[20] Wang, W., Chen, L., Xiong, M., & Wang, Y. (2021). Accelerating AI Adoption with Responsible AI Signals and Employee Engagement Mechanisms in Health Care. Information Systems Frontiers, June, 2239–2256. https://doi.org/10.1007/s10796-021-10154-4

©IJRASET: All Rights are Reserved | SJ Impact Factor 7.538 | ISRA Journal Impact Factor 7.894 |



10.22214/IJRASET

45.98

IMPACT FACTOR: 7.129

IMPACT FACTOR: 7.429

INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Call : 08813907089 (24*7 Support on Whatsapp)