Chapter 12
Innovative-secure Human Resource Recruitment Solutions With Brain-Computer Interface Systems

B. T. Geetha
https://orcid.org/0009-0005-2606-3098
Department of ECE, Saveetha School of Engineering, SIMATS, Saveetha University, India

Toopalli Sirisha
Department of Management Studies, Sri Venkateswara College of Engineering, India

Anjali Sahai
https://orcid.org/0000-0002-2438-8682
Amity Institute of Psychology and Allied Sciences, Amity University, Noida, India

Suhail Javed Quraishi
https://orcid.org/0000-0002-0245-2030
Manav Rachna International Institute of Research and Studies, India

M. Gurusamy
https://orcid.org/0000-0002-9425-9368
Adarsh Institute of Management and Information Technology, India

Shahul Hameed Abdul Gaffar
Consolidated Techniques Co. Ltd., Saudi Arabia

ABSTRACT

In the realm of human resources recruitment, the application of brain-computer interface (BCI) technology presents a novel approach to improving the hiring process. The goal of this research is to better understand how brain-computer interfaces (BCIs) might enhance the hiring process for human resources by using real-time

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neural data to assess candidates' eligibility more precisely. Brain-computer interfaces (BCIs) allow for a more nuanced understanding of candidates' abilities, attitudes, and organizational fit by offering deeper insights into cognitive and emotional reactions during interviews and evaluations. The goal of this project is to look into how hiring practices might benefit from using big data analytics (BCI) technology to better match candidates' skills to open positions, expedite the candidate review process, and lessen bias. This study aims to assess the viability and effectiveness of recruitment solutions boosted by BCI through experimental assessments and HR professionals' feedback. The results suggest that BCIs can fundamentally transform hiring practices.

INTRODUCTION

In the rapidly changing employment market, human resources (HR) departments are looking for less creative ways to improve applicant assessment, expedite the reclamation process, and increase hiring efficiency. While they can be somewhat successful, traditional reclamation strategies usually collapse when it comes to dealing with the complexities of contemporary work operations and seeker assessments. Brown, T., Adams, R., & Lee, S. (2021) use of cutting-edge technologies has become essential as associations aim to obtain a competitive advantage in gift acquisition. Brain-Computer Interface (BCI) is one such cutting-edge technology that has the potential to improve HR reclamation by bridging the gap between digital systems and mortal cognitive processes (He, X., et al., (2020). Through direct connectivity between the human brain and external bias, BCI technology opens up new avenues for data collection and trade. Previously, undiscovered perceptivity into a seeker's cognitive abilities, emotional reactions, and even stressful situations by deciphering brain signals. With this capability, HR departments have a game-changing opportunity to modernize their reclamation tactics and go past traditional approaches that usually rely heavily on standardized testing and private assessments (Devasenapathy, D. et al., 2023). The perfection of seeker evaluations could be greatly improved by integrating BCI devices into HR reclamation procedures. It is helpful, traditional methods like questionnaires, interviews, and psychometric testing are intrinsically constrained by their reliance on self-reported data and canvasser inclinations. Contrary to popular belief, brain-computer interface (BCI) technology provides objective (Babu, M., et al.,2020), real-time perception into a seeker's cognitive reactions to

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