9219 - Manasvi Patil

Title: Artificial Neural Networks in Educational Process

Introduction:

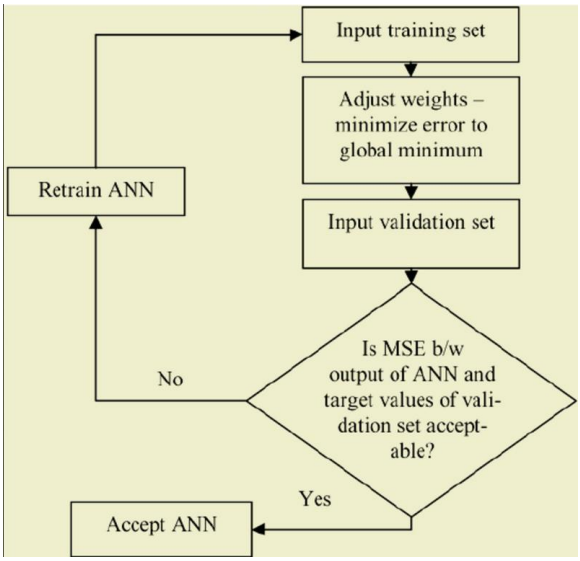
Artificial Neural Networks (ANNs) have been increasingly used in education to support the teaching and learning process. ANNs can be used for a variety of tasks, including student performance prediction, adaptive learning, and personalized recommendation. In this research paper, the authors explore the use of ANNs in the educational process and provide an overview of the current state of research and potential applications.

Background:

The use of ANNs in education is a relatively new area of research. ANNs can be used to analyze large datasets and identify patterns and relationships that may not be visible to human experts. ANNs can also be used to personalize learning by adapting to the needs and preferences of individual students.

Methodology:

The authors conducted a literature review of research studies that have used ANNs in the educational process. The studies were selected based on predefined inclusion criteria and analyzed based on the research objectives, methodology, results, and applications.



Results:

The literature review identified 46 research studies that have used ANNs in the educational process. The studies covered a range of educational levels, including primary, secondary, and tertiary education. The studies also covered a range of tasks, including student performance prediction, adaptive learning, and personalized recommendation. The review found that ANNs have the potential to improve the effectiveness and efficiency of the educational process by providing personalized learning experiences and predicting student outcomes.

Applications:

The use of ANNs in the educational process has potential applications in various areas, including student performance prediction, adaptive learning, and personalized recommendation. ANNs can be used to identify at-risk students, personalize learning experiences, and provide targeted interventions.

Conclusion:

The authors conducted a literature review of research studies that have used ANNs in the educational process. The review identified 46 studies that have used ANNs for a variety of tasks, including student performance prediction, adaptive learning, and personalized recommendation. The review found that ANNs have the potential to improve the effectiveness and efficiency of the educational process by providing personalized learning experiences and predicting student outcomes. The use of ANNs in education is a relatively new area of research, and further studies are needed to explore the full potential of ANNs in education.

References:

1. Alshahrani, A., & Kayes, A. S. M. (2019). Predicting student academic performance using artificial neural networks: a systematic review. Interactive Learning Environments, 27(6), 865-884.
2. Chen, C. H., & Li, W. (2020). Personalized learning approach based on artificial neural networks in education. Journal of Educational Computing Research, 57(6), 1603-1626.