

CHAPTER 6 RG UPD PR

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CHAPTER-6

CONCLUSION AND FUTURE SCOPE

The Proposed work's result has been described in this chapter in relation to the issue discovered, and a remedy has been suggested. In conclusion, we evaluate the thesis's goal and describe the thesis's major contribution. Also, identify some of the study's shortcomings before recommending some future research directions.

6.1 Conclusion

For various services via the Internet, cloud computing offers a flexible & cost-effective option. The newest computing models for pooled computing resources, like bandwidth, storage, servers, processing power, services and applications, are considered a significant IT change. Nowadays this new model has become very popular & receives a great deal of attention from researchers in academia and industry. Important features of the cloud-based computing paradigm include self-service on demand, fast flexibility, pooling of resources & wide network connectivity. NIST (National Institute of Standards and Technology) has designed cloud computing as a framework for easy and on-demand access to the network to a shared pool of configurable computing resources which may be delivered & released quickly with little administration effort or the interaction of service providers. Cloud computing is a modern computer technology that offers services to customers at all times. Resources are dispersed worldwide in a cloud computing system to serve customers quicker. Customers have access to information via many devices including computers, mobile phones, PDAs & tablets. The current study is based on the fractional order Darwinian Particle Swarm Optimization (FODPSO), a safe data center. The proposed FODPSO method, which includes several PSOs for particle swarm optimization, strives for optimum solution for the "survival", of each particle, with advantage of having an inherent memory of previous choices. The initial disadvantage to traditional PSO was that of the early convergence of a swarm with this new design. FODPSO discards swarms that converge prematurely in order to achieve or may not be best solutions like conventional Darwinian Particulate Swarm Optimization (DPSO). It also promotes the development of new particle-based swarms that "genetically" share the information that other particles have previously gained. In addition, the fractional extension

that enhances the balance among exploration & operation means that every FODPSO particle is considerably "smarter" than PSO & DPSO particles. This enables the FODPSO method to be operated with a smaller population than the DPSO algorithm, thereby lowering the computer complexity and yet anticipating the same outcome. We have used GMOPST14/GMOPST14/SASEBO_R/DATA/aes/d000 dataset with our proposed approach. Data Sensitive User Data Rating (DSR). Data are assigned space on the based on the DSR value in one of the 3 suggested cloud divisions. The divisions suggested are public, private & access-limited. The DSR value over 8 allocates data to the partition of restricted access and the data to the public partition below the value 3. The information is encrypted & Mac is added afterwards, using 128-bit ssl encryption. A search index for encrypted data is also created & encrypted to use. This encryption will enable the users to make sure that others do not gain access to it. Based on the SR value, the data & index are transferred to the cloud where they are saved. Download is enabled on the basis of user authentication co-operated with data owner and the cloud. No authentication is required of the data in the public partition. On the other node, according to computer assessments, the suggested technique of using CNN based FODPSO correctly resolves variations of nonlinear, twice singular, normal differential equations. The method presented offers a more precise solution for differential equations with numerous unique characteristics & systems. The suggested approach may deal with issues in thermodynamics, electromagnetism & nanotechnology by altering the CNN activation function. A fitness function that takes account of kernel number & neuron nodes in PSO is utilized to simplify the CNN structure. The suggested approach may achieve more accuracy than existing state-of-the-art methods in the verification tests for 2 well-known public datasets. 2 main methods are utilized to decrease time complexity. The structure of the CNN has been maintained & FODPSO merely improves its critical parameters like kernel & neuron number.

6.2 Future Scope

This research has a great importance as it addresses the important solutions for the challenges currently faced by the cloud system. As, many organizations and even governments are migrating to cloud environment this research can throw some light on the critical issues of the cloud system. This will ensure security and reduce the data theft using the new rating system (DSR) in cloud environment. At last, the performance of proposed method will be validated and compared with traditional method such as PSO and DPSO. Java Programming will be used to conduct the current research. This research has many scopes for further research, in evaluating the efficiency of scheduling algorithms. The rating system can be incorporated with third party data integrity checks in future. The possibilities are wide that this current work can be extended, with other studies and algorithms to improve the efficiency. Since data centres consume lots of energy, reducing the power consumption can be considered as a future research of this work. As part of the future study, the FODPSO will be assessed in real-time autonomous deployment & dispersed location of sensor nodes in picture segmentations because of the low computing cost of the method. The aim is to use the nodes exclusively in the fields where the pictures taken by the camera on board an unmanned aerial vehicle are segmented using FODPSO algorithm. For emergency usage, like disaster monitoring & battlefield surveillance, such implementation is essential. In addition, it would be important, instead of segmenting the database band by band, to develop a method to estimate the number of thresholds (parameter n) & multichannel joint division. Efficient cloud storage patterns & failure degradation need to be taken into consideration in the future to enhance forecast accuracy.

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