**Paper No: PU-SOE-CSE-08**

**Combinatorial Double Auction based Meta-scheduler for Medical Image Analysis Application in Grid Environment**

**Karthikeyan Periyasamia**, Arul Xavier Viswanathan Mariammalb, Iwin Thanakumar Josephc and Velliangiri Sarveshwarand

# [a.](https://www.researchgate.net/institution/Presidency_University_Bangalore) [Presidency University, Bangalore · Computer Science and Engineering](https://www.researchgate.net/institution/Presidency_University_Bangalore)

# b,c.Assistant Professor / CSE, Karunya Institute of Technology and sciences, Coimbatore-6411114, India

d. CMR Institute of Technology, Hyderabad, India

**Abstract**

Grid computing provides more computing power to solve the financial forecasting, weather forecasting, drug design and medical image processing application. Many meta-scheduling algorithms have been proposed to schedule jobs. Considering the architecture and characteristics of the grid environments, traditional meta-scheduler algorithms cannot be applied to the grid computing properly. In this paper, we have come up with a combinatorial double auction based meta-scheduler. The aim of this meta-scheduler is to maximize the number of the job accepted. We assess the proposed meta-scheduler performance by simulating the grid environment. The experimental result shows that the proposed meta-scheduler algorithm maximize the number of the job accepted than the traditional meta-scheduler algorithm.

**Keywords:**

Grid computing, Meta scheduler, combinatorial auction, Medical image

**Publication Details:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Journal Name** | **Vol.** | **Month & Year** | **Page No.** | **Publisher** | **Scimago Ranking** |
| Recent Advances in Computer Science  and Communications  (Recent Patents on Computer Science) | 12(1) | Nov. 2019 | 1-9 (online publication) | Bentham | Q3 |