A SIMULATION ALGORITHM FOR QUEUING SYSTEMS WITH PARALLEL WORKING STATIONS HAVING ONE'S OWN QUEUE FOR EVERY STATION

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Abstract: We can think the queuing system as having only one queue to all stations, where the client joins in order to be served when there is a free station or every station has its own queue where arrived clients join. In the first case, for some distributions of the inter-arrival and service time and serving discipline, there are analytical methods. For the second case, there are no such techniques. The paper presents a studying method for this system class, based on discrete events simulation. One proves the polynomial complexity of the proposed algorithm. Also, we present the object oriented approach of the system.

Key words: queuing system, simulation, algorithm, complexity.

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