Model for the analysis and optimization of the efficiency and survivability of an enterprise based on optimal aggregation methodology(Conference Paper)

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Краткое описание

Development of mathematical models for the analysis and synthesis of optimal management of an enterprise, with the account of the requirements of efficiency and survivability criteria, was performed. A single resource approach was used to develop models for an enterprise operation in nominal and non-nominal conditions - in the event of subsystems failures. The survivability functions are developed - the dependences of the enterprise efficiency losses on the cost of the failure configuration. The tasks of the enterprise optimization are identified: - minimization of survivability functions on the set of failure configurations due to the search for rational structures of the subsystems, and - maximization of the efficiency function in nominal and non-nominal operation modes. The method of optimal aggregation was used. The results of research on models are presented. © COPYRIGHT SPIE. Downloading of the abstract is permitted for personal use only.