HIGHER EDUCATION INSTITUTIONS NATIONWIDE
MATAMATIC IN THE TEACHING OF SUBJECTS
ROLE OF MODELING

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It is known that in the past centuries, mathematical methods and information technologies in various spheres of personality society began to be widely popularized. As a result of its application, many new areas have emerged in the direction of National Science. People in this field are engaged in the construction of mathematical models that correspond to things and phenomena in solving real world problems, as well as studying these models.

When we say a matter in science, we understand the model described by means of various homogeneous signs of a problematic situation, which usually occurs in the activity of human labor.

The rational and wise solution of the problem situation consists in the implementation of mathematical modeling, in many respects convenient and sequential on the issue. Through mathematical modeling, National Science can be inextricably linked with innovative information technology when the requirements for teaching are met.

The Model is an image or an example of a system of objects or subjects. For example, a photo of a man, the same photo can be called a modem of the owner. A mathematical model is an approximate description of some thing of the real world and a class of khanates in the language of mathematics,that is, it is a Artificial system that expresses the basic properties of the objects under study and describes many information about it in a convenient form.

Modeling in the encyclopedic dictionary" philosophy " is a scientific method based on the study of the linkage in the widow. Bunda is understood to reproduce in another obekt, which is specially structured to study the properties of an obekr.

Modeling consists in the study of cognition objects with the help of their models, the design and study of models of existing things and cases.

Specialists of National Sciences study one or another of these processes, only their fields, personnel. On this basis, the structured models should reflect as fully as possible the issue, phenomenon and process under study.

The main purpose of modeling is to study the objects and predict future observations in advance. Also, modeling is that direction is also a method that allows you to know and control the real world.

The task of mathematical modeling is to describe the existing universe in the language of mathematics.

The modeling process does not end with obtaining this or that model. From the mathematical language is transferred again to the language that expresses the initial task. It is understood that the solution obtained as a result of a mathematical model does not only understand the mathematical essence, but also what it expresses in the real world.

The main part of the technical objects is attributed to a complex class, such systems are implemented at the following stage.

a) input parameters (outputs) and output parameters (technical

determine the link between the quality indicators of the object).

b)optimize output parameters of technical parameters

it will consist in setting the level.

A mathematical model is a powerful way to know the universe, as well as to predict and be guided. Its analysis provides access to and analysis of the trained employee. The main points of the study of issues and phenomena with the help of mathematical modeling are as follows::

Step 1-Express the laws that bind the main objects of the model;

Step 2-build a mathematical model;

Step 3-verification of mathematical issues in the mathematical model;

Step 4-solving mathematical problems within this model;

Step 5-the criteria for the operation of the accepted model

to determine the satisfaction, that is, to determine the compatibility of the model with its theoretical results as a result of observations;

Step 6-interpretation of the results obtained from the model;

Stage 7-perform a sequential analysis of the model in connection with the accumulation of information about the studied phenomena

increase and improve it, as well as refine it; 8-th stage–verification of the equal strength of the MOEL; 9-th stage–consists in the modernization of the model.

The main content of mathematical modeling is the comparison of the results with the data on the object by experimental or theoretical analysis of the model on the basis of the initial study of the object, the correction(improvement) of the model.

So, in order to draw up a mathematical model, it is initially a matter

formalized. In the case of the content of the issue, the necessary characters are inserted. Then, functional links are generated, which are written in the form of a formula or algorithm in the range of dimensions. Mathematical modeling based on the above considerations can be as follows.

When creating a system, the need arises for synthesis to solve the problem of finding its internal parameters on the basis of the values of the external and output parameters specified in the technical task of designing a relatively more difficult system. To solve such a problem in engineering practice, a project account is suitable in order to optimize the internal parameters on the basis of an optimization criterion. However, when building a mathematical model of the F function system (1.1) becomes numeric, it is necessary to install it. This relatively difficult issue is solved by the identification of mathematical mediation.

The problem of identification is solved by a mathematical analysis of the data of the internal, external and output parameters of the system cases, when they are clear. One such method is associated with regression analysis. If there is no information of internal parameters, or the internal device of the system is complicated, then by setting the external and output parameters through the study of the system's response to external influences, mathematical mediation is built on the principle of black box.