SYSTEM ANALYSIS: TYPES OF SYSTEMS AND CATEGORIES OF INFORMATION (СИСТЕМНИЙ АНАЛІЗ: ТИПИ СИСТЕМ ТА КАТЕГОРІЇ ІНФОРМАЦІЇ)

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Науковий керівник – ст. викл. **В.О. Архипова**
Харківський національний університет радіоелектроніки

Розглянуто типологію та основні характеристики компонентів систем, а також представлено аналіз категорій інформації.

System analysis is a process of collecting and interpreting facts, identifying the problems, and decomposition of a system into its components.

It is conducted for the purpose of studying a system or its parts in order to identify its objectives. It is a problem solving technique that improves the system and ensures that all the components of the system work efficiently to accomplish their purpose.

System analysis specifies what the system should do.

The systems can be divided into the following types:

– Physical or Abstract Systems;
– Open or Closed Systems;
– Adaptive and Non Adaptive System;
– Permanent or Temporary System;
– Natural and Manufactured System;
– Deterministic or Probabilistic System;
– Social, Human-Machine, Machine System;
– Man–Made Information Systems (Formal Information System, Informal Information System, Computer Based System).

There are three categories of information related to managerial levels and the decision managers make. They are as follows:

1) Strategic Information;
2) Managerial Information;
3) Operational information.

Any system usually possesses such properties as organization, interaction, interdependence, integration and central objective.

Basically, systems models can be classified as Schematic Models, Flow System Models, Static System Models, Dynamic System Models.