



## **Fund “Nauka” Project № 20028 Resume – Competition-Based Session 2020:**

“Methodology for building a management information system of a faculty in a higher school in Bulgaria”

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The **aim** of the project is to develop a methodology of information system (IS) for collecting, storing and processing faculty activities data for the purposes of effective management. The system will provide ad hoc management information in different subject sections (scientific activity, expert activity, educational activity, student scientific activity, mobility) and at different levels (individual, department, specialty, PhD, professional field).

### **Tasks:**

1. Study of the formal established work processes in the faculty and the possibilities for their optimization;
2. Study of current IS in Universities in Bulgaria and Europe;
3. Adapting and supplementing the existing information systems to the formal specifics of Bulgarian higher education;
4. Development of methodology and description of the information system’s requirements;
5. Publication of the results.

**Expected results:** Creation of a methodology for development of an Information system for faculty management in University in Bulgaria. The methodology will support research and evaluation of the effectiveness of the management of faculty activities.

### **Contributions:**

1. In the long term, the implementation of the most appropriate management information system, tailored to the specific needs of the organization, will create conditions for the development of research in the field of data processing.
2. The new Laboratory for data analysis and processing will provide an infrastructural environment for the development of research activities in the field of ICT and applications in healthcare.
3. Possibility for optimizing the management of the work processes in the faculty.
4. Increasing the scientific capacity and developing the academic knowledge of young researchers.

### **Achieved results:**

A methodology has been developed for the construction of an information system for the management of a faculty in a higher education institution in Bulgaria.

The choice of the most suitable management information system tailored to the organization's specific needs will, in the long term, create conditions for the development of scientific research related to data analysis and processing. The possibilities for optimizing the management of work processes in the faculty and the development of the scientific capacity and the possibility of academic development of the young researchers from the project are presented.

The integration of an automated system for the collection, storage and processing of information arrays for the educational and scientific activity of the teaching staff is the missing tool for objective assessment of the results of the work of the academic staff, a pledge to create a favorable environment for the development and attraction of young researchers. The successful implementation of the project guarantees the selection of the most suitable tool for effective management for the organization, and in addition creates conditions for its implementation and sustainable management by building a Laboratory for data analysis and processing.

The laboratory expands the existing scientific infrastructure of the university and has the potential to become an indispensable center for the analysis and processing of research data conducted in the faculty. Free/ open source software products such as the statistical computing environment and R graphics will be used in the initial phase of the lab. Given the expected growth in the faculty's project activity, a two-year subscription to the project management software – Microsoft project – PPM is planned. In this context, the project corresponds not only to the cited national strategy, but also to the Development Policy of the Medical University “Prof. Dr. Paraskev Stoyanov” – Varna. One of the main tasks related to the development of scientific activity is: Creation of mechanisms for linking scientific activity with the reward system. The introduction of a management information system (MIS) will allow timely updating of the generally accepted (at national and European level) criteria for research, analysis and evaluation of scientific research activity. Through the system, it is possible to analyze to what extent the priority directions for the development of scientific research in the EU and the country are represented in the organization.

The results of the project have been popularized through three reports presented at the XIII and XIV Conference “E-Governance and E-Communications” of TU-Sofia in 2021 and 2022.