SibFU Scientists to Predict Undesirable Events on Railways

Data Mining Systems for Predicting Undesirable Events on Railway Tracks project of the research team of the School of Business Process Management, Siberian Federal University, has become a winner of the RFBR competitive selection.



Russian Railways JSC, the Talent and Success Foundation and Sirius University also participated in the selection of the best projects of fundamental research performed by young scientists under the guidance of a leading mentoring researcher.

The result of the project will be a software decision support system which, ultimately, will predict and help to prevent undesirable events on railway tracks.

Roman Kuzmich, head of the research team, assistant professor of the Department of Business Informatics and Business Process Modeling: "The idea of this project popped up after analysis of the existing software and algorithmic support used to solve problems of recognition and forecasting.

The analysis revealed its focus only on high recognition accuracy. However, to create a full-fledged decision support system for recognition and forecasting, the method requires not only the accuracy of the problem solution, but at the same time the probativeness of this approach and the interpretability of the solution it formulates. A decision support system under development should be based on recognition methods aimed at probativeness and interpretability. Such system will be tested on real-life practical issues. A distinctive feature of the competition is the requirement to conduct research on the basis of the Talent and Success Educational Foundation and/or Sirius University for at least 3 months and no more than 6 months during each stage of the project."

It should be noted that all members of the team have a notable scientific background related to solving such problems, including publications and certificates of state registration of software.

In total, 25 projects were supported in the framework of this competitive selection.

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