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The IT in the nuclear research has been focused mainly on mathematical modelling of the nuclear phenomena and on big data analyses. The applied nuclear sciences used for the environmental research brings in a different set of problems where information technologies may significantly improve the research. The ICP Vegetation is an international research program investigating the impacts of air pollutants on crops and (semi-) natural vegetation. Thirty-five parties participate in the program. One of the co-leading institutions of the program is the Frank Laboratory of Nuclear Physics (FLNP) of the JINR. In cooperation with the Laboratory of Information Technologies (LIT) of the JINR, the database system for terrain moss sample data collection and processing was developed. The goal of the research teams from the VŠB-TU Ostrava, the FLNP and the LIT is further development of the database system by adding new functions. These new functions should standardize analyses (statistical toolset) and visualization (GIS toolset) of the samples provided by all research teams.

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