## The Knowledge in Automotive Field Representation with Modern Technologies

Galina Bogdanova<sup>1</sup>, Svilen Stefanov<sup>2</sup>, Todor Todorov<sup>1</sup>, Jordan Shterev<sup>2</sup> and Nikolay Noev<sup>1</sup>

<sup>1</sup> Institute of Mathematics and Informatics, Bulgarian Academy of Science, Sofia, Bulgaria, {galina, todor}@math.bas.bg, nickey.noev@gmail.com

<sup>2</sup> National Military University "Vasil Levski", Veliko Tarnovo, Bulgaria, {svilen\_es, jshterev}@abv.bg

**Abstract.** Modern technologies have changed the way of presenting information in archives. This makes it possible to introduce new services, which was unimaginable a few years ago. Digitalization, security and virtual presentation of objects in the sphere of motoring by application of technologies, based on knowledge about how to create digital resources is the theme of this project.

The aim of AutoKnow project is to carry out a research and create a multimedia digital archive AutoKnow and Experimental Virtual Motor Laboratory (EVML) with Motor Library (ML) from digital multi-media patterns from a selected group of objects in the sphere of automobile technology, presented by NMU. This makes it possible to widely apply multi-media collections in automobile engineering, teaching, research work in that sphere and serve the interests of a large number of auto-amateurs as well in Bulgaria.

The research and development of AutoKnow is in the following mutually related fields:

- Creation and annotation of collections of objects in the sphere of automobiles:
- Creation, analysis and security of a digital archive AutoKnow;
- Design and creation of Digital Motor Library;
- Socially-oriented applications in education, scientific studies and Experimental Virtual Motor Laboratory;
- Informational System for teaching and testing of knowledge in the sphere of automobiles MindCheck.

Keywords: Automobiles, Model, Archive, Laboratory.