

[Anastasia Zhukova](#), a doctoral researcher in Computer Science working in the [Data & Knowledge Engineering \(DKE\) Group](#) headed by Prof. Bela Gipp won the [Women's STEM Award 2019](#). The international award (prize money 3,000 EUR) honors exceptional graduation theses of women in STEM disciplines, i.e., Science, Technology, Engineering, and Mathematics. Ms. Zhukova received the award for her master's thesis, which she compiled within the DKE Group. The thesis is titled

"Automated Identification of Framing by Word Choice and Labeling to Reveal Media Bias in News Articles" and is available for download [here](#).

Ms. Zhukova's research addresses the pressing problem of automatically identifying slanted news coverage. The problem is highly relevant since the number of news articles has increased drastically due to Digitization. At the same time, biased news coverage has become a problem even in democratic nations, as Ms. Zhukova shows in her thesis using several compelling examples.

To recognize slanted news articles within the tremendous amount of news coverage, Ms. Zhukova devised an approach that employs Artificial Intelligence to spot framing. The term describes the presentation of events in a way that supports a specific perception of the event by the reader of the news article. Often, framing in news articles is achieved by employing subtle differences in language that current methods for automated natural language processing can hardly distinguish.

To improve the state-of-the-art methods, Ms. Zhukova collaborated both with experts for frame analysis from the Department of Politics and Public Administration at the University of Konstanz as well as with experts for automated natural language processing in the research group of Prof. Gipp and from the National Institute of Informatics (NII) in Tokyo, Japan. A [cooperation agreement between the DKE Group and the NII](#) enabled Ms. Zhukova to complete a part of the research for her master's thesis during a six-month-long research stay in Tokyo. Having completed her master's degree, Ms. Zhukova continues her research on revealing biased news coverage as a doctoral researcher.

The annual competition for the Women's STEM Award is jointly organized by Deutsche Telekom and the students' magazine audimax. In 2019, the competition received 140 submissions of high-profile graduation theses addressing one of five topical areas: Cloud, Internet of Things, Artificial Intelligence, Cyber Security and Networks of the Future.

A jury of international experts selected Ms. Zhukova's thesis as the most outstanding submission in Artificial Intelligence and the best thesis in the competition overall. The award ceremony took place at the headquarters of Deutsche Telekom in Bonn on July 4, 2019. A video showing the presentation of the award to Ms. Zhukova is available [here](#).

Additional Information

- [An article about the Women's STEM Award by Klaus vom Hofe](#) (Deutsche Telekom)
- [A blog post by Dr. Jan Hoffman, Top Program Lead AI at Deutsche Telekom](#)
- [An article about the Women's STEM by Deutsche Telekom on LinkedIn](#)