

Application aspects of social data processing (Social intelligence technologies)

Course overview

Lecturer: Anton G. Kolonin, Ph.D.

Semester: 3 **Duration:** 16 weeks

Abstract

Course provides practical insights for building applications involving elements of social intelligence technology involving graph analysis, semantic modeling, natural language processing and approaches for developing natural language comprehension and production systems, bot automation, social networks and transactional networks such as blockchains.

First block of the course is dedicated to different aspects of graph analysis, provides explanation of different sorts of graph structures, applications of the graphs for semantic modeling, support of the graph processing in different systems and projects, with discussion of alternative approaches for graph representations.

Second block of the course covers practical aspects of developing natural language applications used to capture semantics and sentiment in online communications as well as production of texts in conversational systems such as chat-bots.

Third block provides theoretical and practical aspects of building applications for social computing such as analytics in social networks or building applications for these networks including traditional centralized social networks such as Facebook and VKontakte as well as decentralized social and financial networks such as Ethereum, Steemit and Golos.

Major topics

Basics of graph analysis and semantical modeling, different approaches for natural language processing, comprehension and production, social and transactional network and analytics on network data, application and practical aspects of the above.

Assessment

Credit (on the basis of a report or an abstract on one of the selected topics of the course and respective presentation)