**HSE SUMMER UNIVERSITY 2018**

**Introduction to Artificial Intelligence: Methods, Models, Algorithms**

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| Course objectives: | * To familiarize with the basic concepts and applications of Artificial Intelligence * (optional) To implement AI programming project |
| Prerequisites: | * General understanding of Math, Logic, Calculus, Probability Theory * (optional) C/C++ or Python programming skills |
| Course outline: | * Introduction to AI (history, state-of-the-art, milestone projects and achievements) * Knowledge Representations and Reasoning * Machine Learning: Supervised and Unsupervised Learning * Machine Learning: Neural Networks * Heuristic Search * Pathfinding and Task Planning |
| Tentative Class Schedule: | * July 16th 2018 – July 28th 2018 (two weeks) * 4 academic hours per session twice a week * (16 contact hours + 36 hours of self studies) |
| Final Grade: | * 2 Credits based on attendance and participation in at least one major activity (either small programming project or research presentation) |
| Course Materials: | * Artificial Intelligence: A Modern Approach (3rd Edition) by Stuart Russell and Peter Norvig, 2010 * Artificial Intelligence: Structures and Strategies for Complex Problem Solving (6th Edition) by George F. Luger, 2009 * Introduction to Artificial Intelligence (2nd Edition) by G.S. Osipov, 2013 (in Russian) |
| Lecturers (also see below) | * Konstantin Yakovlev * Alexander I. Panov |

**Lecturers**

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| Konstantin Yakovlev  D:\ISA 2017\_profile\yakovlev-135-180.png | * Lead researcher of Federal Research Center “Computer Science and Control” of Russian Academy of Sciences, * Lecturer of the department “Intelligent Technologies for Systems Analysis and Control” of Computer Science Faculty of National Research University “Higher School of Economics”, * Ph.D. in theoretical computer science, * Member of the Scientific Council of the RAAI – Russian Association for Artificial Intelligence <http://www.raai.org/>   <https://www.hse.ru/staff/yakovlev-ks> |
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| Alexander I. Panov  &Pcy;&acy;&ncy;&ocy;&vcy; | * Senior researcher of Federal Research Center “Computer Science and Control” of Russian Academy of Sciences, * Lecturer of the department “Intelligent Technologies for Systems Analysis and Control” of Computer Science Faculty of National Research University “Higher School of Economics”, * Ph.D. in theoretical computer science, * Member of the RAAI – Russian Association for Artificial Intelligence <http://www.raai.org/>   <https://www.hse.ru/staff/apanov> |