LITHUANIAN COMPUTER SOCIETY VILNIUS UNIVERSITY INSTITUTE OF DATA SCIENCE AND DIGITAL TECHNOLOGIES LITHUANIAN ACADEMY OF SCIENCES



11th International Workshop on

DATA ANALYSIS METHODS FOR SOFTWARE SYSTEMS

Druskininkai, Lithuania, Hotel "Europa Royale" http://www.mii.lt/DAMSS

November 28-30, 2019

VILNIUS UNIVERSITY PRESS Vilnius, 2019

Co-Chairmen:

Dr. Saulius Maskeliūnas (Lithuanian Computer Society) Prof. Gintautas Dzemyda (Vilnius University, Lithuanian Academy of Sciences)

Programme Committee:

Prof. Juris Borzovs (Latvia) Prof. Albertas Čaplinskas (Lithuania) Prof. Robertas Damaševičius (Lithuania) Prof. Janis Grundspenkis (Latvia) Prof. Janusz Kacprzyk (Poland) Prof. Ignacy Kaliszewski (Poland) Prof. Yuriy Kharin (Belarus) Prof. Tomas Krilavičius (Lithuania) Prof. Julius Žilinskas (Lithuania)

Organizing Committee:

Dr. Jolita Bernatavičienė Prof. Olga Kurasova Dr. Viktor Medvedev Laima Paliulionienė Dr. Martynas Sabaliauskas

Contacts:

Dr. Jolita Bernatavičienė *jolita.bernataviciene@mif.vu.lt* Prof. Olga Kurasova *olga.kurasova@mif.vu.lt* Tel. +370 5 2109 315

Copyright © 2019 Authors. Published by Vilnius University Press This is an Open Access article distributed under the terms of the Creative Commons Attribution Licence, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited

https://doi.org/10.15388/Proceedings.2019.8

ISBN 978-609-07-0325-0 (digital PDF)

© Vilnius University, 2019

Ranking-Based Discrete Optimization Algorithm for Asymmetric Competitive Facility Location

Algirdas Lančinskas¹, Julius Žilinskas¹, Pascual Fernandez², Blas Pelegrin²

 ¹ Institute of Data Science and Digital Technologies Vilnius University
² University of Murcia, Spain algirdas.lancinskas@mif.vu.lt

We address a discrete competitive facility location problem for an entering firm with a binary customers choice rule and an asymmetric objective function. A heuristic optimization algorithm which is based on ranking of candidate locations and specially adopted for the discrete facility location problems is designed. The proposed algorithm is experimentally investigated by solving different instances of the facility location problem with an asymmetric objective function.