MODELLING AND STATISTICS IN FOOD PRODUCT DESIGN - MODERNIZATION OF FOOD ENGINEERING COURSES

Gordana Cetkovic, University of Novi Sad, Faculty of Technology Novi Sad, Serbia Jasna Canadanovic-Brunet, University of Novi Sad, Faculty of Technology Novi Sad, Serbia Strahinja Kovacevic, University of Novi Sad, Faculty of Technology Novi Sad, Serbia Sanja Podunavac-Kuzmanovic, University of Novi Sad, Faculty of Technology Novi Sad, Serbia Milica Karadzic, University of Novi Sad, Faculty of Technology Novi Sad, Serbia Lidija Jevric, University of Novi Sad, Faculty of Technology Novi Sad, Serbia cetkovic@tf.uns.ac.rs

Modelling of food processes allows food engineers not only to understand these processes more clearly but also to control them more closely and make predictions about them. The application of predictive models in foods has emerged significantly in the last two decades due to development of computer science and statistical packages. The aim of defining predictive models in food science is to ensure safety and quality of food. Modelling could be a contemporary tool for designing food with higher and consistent quality. Applying modelling and statistical methods to food processing enables engineers to predict behavior of food products under different combinations of factors. This study presents the range of modelling techniques and their applications across the food chain for students at undergraduate food engineering courses.