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Opatija, April 24–26, 2024

The 5th International Statistical Conference in Croatia

UNIVERSITY OF RIJEKA
FACULTY OF TOURISM AND HOSPITALITY MANAGEMENT
OPATIJA, CROATIA

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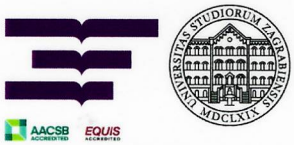

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The 15th International Statistical Conference in Croatia

ISCCRO, Opatija, April 24–26, 2024

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Preface

Abstracts of contributed talks, presented at the 15th International Statistical Conference in Croatia – ISCCRO 2024, are published in this book. The International Statistical Conference in Croatia (ISCCRO) is the major event organized every two years by the Croatian Statistical Association (CSA) since 2016. The objective of the ISCCRO conferences is to gather a researchers, academics, students or practitioners with a great interest in advancing and applying contemporary statistical methods and related scientific disciplines (such as applied mathematics, quantitative methods in business, simulations, machine learning and data analytics int the widest sense).

Worldwide promotion, dissemination and popularization of statistics is our mission, while exchanging ideas, knowledge and experiences as well as collaborating with colleagues, friends and other participants are highly beneficial and appreciated.

ISCCRO conferences were successfully held so far in Zagreb and Opatija. The 5th ISCCRO conference, organized by Croatian Statistical Association in collaboration Faculty of Tourism and Hospitality Management, University of Rijeka & Faculty of Economics and Business, University of Zagreb, was held in Opatija from April 24 to April 26, 2024. The 5th ISCCRO conference brings together various sessions topics:

- Data Mining & Machine learning
- Econometrics
- Biostatistics
- Social & Behavioral Statistics
- Environmental & Spatial Statistics
- Official Statistics
- Teaching Statistics
- Theoretical & Applied Statistics

In addition to 14 contributed talks within regular sessions, two plenary sessions, one panel discussion and PhD methodological seminar are established by the Organizing Committee. Therefore, the presence of contributors always enriches our conference in line with ongoing data science development, making it memorable for all attendees.

The total of registered contributors and listeners participate the conference from 5 different countries: Austria, Croatia, Slovenia, Serbia and Bosnia and Herzegovina.

The conference has an international Programmee Committee and is held in English language. After the conference, authors are encouraged to submit full papers (on English or Croatian) at their convenience for potential publication in the CREBSS journal *Croatian Review of Economic, Business and Social Statistics*, by using Open Journal System.

Editor

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Pursuing a career in the field of applied statistics and data analytics: What are the antecedents?

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Abstract | Gaining insight into the interests of individuals in a particular job position or field of specialisation is crucial for educators, decision–makers, and policymakers when guiding them in pursuing their desired professional careers. This is especially important in job positions related to STEM (science, technology, engineering, and mathematics), as these fields have a global impact, influencing economies, societies, and the environment. Considering the advances of machine learning, artificial intelligence and open innovation, on one side, and traditional fear and anxiety towards mathematics-related subjects, understanding the factors that impact the students' decision to pursue a career in the field of applied statistics and data analytics is important not only for the future job market but for the future of teaching and lecturing statistics. To scrutinise the latter statement, the authors surveyed undergraduates' attitudes towards specialising in statistics and data analytics. A total of 401 responses were

acquired independently from two consecutive generations. Logistic regression models were developed for both covered generations. Regarding the results, firstly, both models were noted as statistically significant. Secondly, classification success ranges from 71.3% for the 2022/23 generation to 81.5% for the current generation (2023/24). Thirdly, the model for the previous generation outlined high expectations of programming skills and a prosperous perspective of data analytics as significant predictors. On the contrary, the current generation model showed that the undergraduate program and a prosperous data analytics perspective are significant predictors. Furthermore, gender and grades in mathematical subjects showed no statistically significant relevance to model prediction. This study sheds light on the fact that students' interest in specialising in the fields of statistics and applied statistics did not change between generations. However, the factors impacting their decision-making have. Studies such as this could act as an impetus for further, more detailed studies on tracking undergraduates' perception of the field of statistics as a potential career path.

Key words | *attitude towards statistics*, *career path*, *applied statistics*, *data analysis*