



**XIII INTERNATIONAL CONFERENCE ON SOCIAL AND  
TECHNOLOGICAL DEVELOPMENT – STED 2024**

**THE BOOK OF ABSTRACTS**

**XIII MEĐUNARODNA KONFERENCIJA O DRUŠTVENOM I  
TEHNOLOŠKOM RAZVOJU – STED 2024**

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**XIII INTERNATIONAL CONFERENCE OF SOCIAL AND TECHNOLOGICAL DEVELOPMENT**  
**XIII MEĐUNARODNA KONFERENCIJA O DRUŠTVENOM I TEHNOLOŠKOM RAZVOJU**

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# XIII INTERNATIONAL CONFERENCE ON SOCIAL AND TECHNOLOGICAL DEVELOPMENT

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***INFORMATION TECHNOLOGY***  
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## USING CHATGPT IN SOLVING DEFINITE INTEGRALS

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### ABSTRACT

Artificial intelligence has an inevitable scientific and societal development nowadays. It is increasingly involved in human everyday life with the simple purpose of making it easier. Therefore, in this work, we will explore the possibilities of ChatGPT as an artificial intelligence tool in the application of definite integrals. The application of definite integrals is reviewed in calculating the length of a curve, the area of a figure, the volume, and the surface area of a rotating body generated by rotation around the X or Y axis. In this paper, the following questions will be answered: How effective is the solution to the task given to ChatGPT? To what extent does this solution correspond to the solution of the same task solved by a human? Are mathematicians satisfied with this tool for solving this type of math problem? What improvements should be made for ChatGPT so that the solution of such types of tasks meets mathematical standards?

**Keywords:** ChatGPT, Artificial intelligence, definite integral, application of definite integral in geometry.