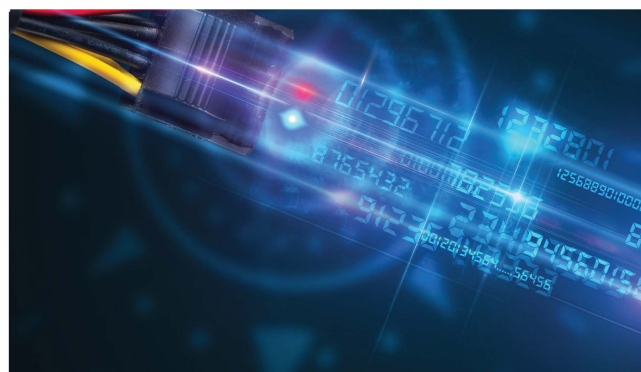


## Faculty of Information Technologies

Faculty of Information Technologies is one of the leading faculties of the first private university in Serbia, Alfa BK University

The main goal of FIT is education of quality experts in the field of information technologies that will upgrade our society with their knowledge and engagement in the society. Our syllabus was intensively changing during last couple years according to dynamic changes in the IT sector with the goal to make all levels of studies more efficient and more contemporary. We are proud that we can say that our professors are achieving extraordinary scientific results, some of them are leaders and participants of domestic and international projects and all of them inspire students to push their own boundaries in thinking and learning.

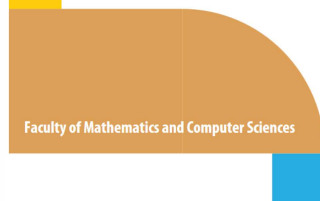
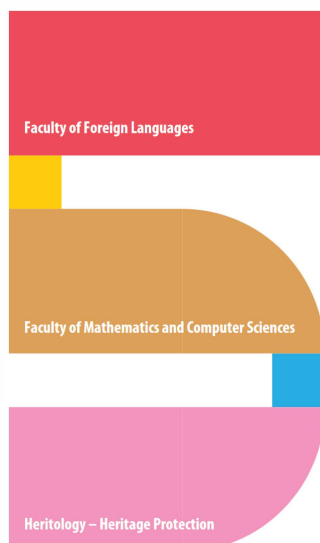
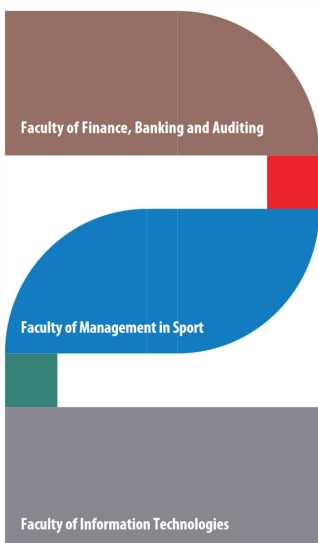
Faculty of Information Technologies educates professionals within the accredited study programmes of bachelor and master academic studies, but also within accredited study programme of doctoral studies of Information-communication technologies. Our programmes are created for professions of the future according to the needs of economy and development of contemporary society.



### About the faculty

Within the Faculty of Information Technologies development strategy, the first aim is to provide students with the opportunity to do their internship in the companies with which we cooperate and where our students can be employed. Professional courses for students and all interested participants are in the process of preparation (along with issuing certificates of the finished course) and they will include training in which participants will use different IT tools and gain certain skills such as:

- web designer/programmer
- graphic designer
- Java programmer
- PHP programmer
- JavaScript programmer
- Android programmer
- web site administrator
- C programming
- C++ programming



## About the University

High quality faculty, objective evaluation of students, market-oriented study programmes, student-oriented administration services, quality internship of our students, successful international cooperation, good working conditions – modern lecture theatres and classrooms, these are just a few features that help our students to acquire quality education.

The University has successful international cooperation. Our curricula are harmonized with study programmes of similar foreign universities.

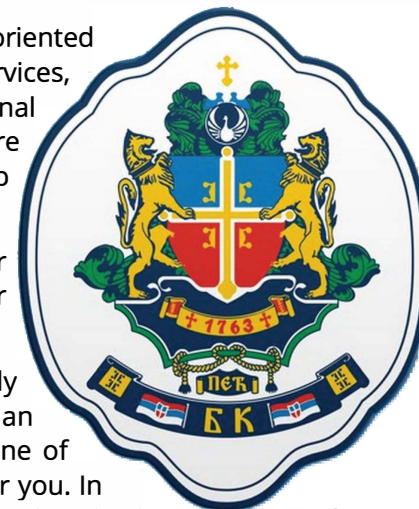
Over 20 accredited study programmes at all levels of study (undergraduate, master and doctoral studies) and more than 20,000 students who have obtained their academic title at one of our faculties prove that Alfa BK University is the best choice for you. In addition to the existing accredited study programmes, our University is trying to expand by introducing new, market-oriented programmes, which will create competent professionals in various fields of study.

Study programmes at faculties within Alfa BK University are a response to the needs of the economy and modern society. Modern times, globalization of business, technical and technological changes and other contemporary trends require flexible curricula based on new working methods, individual and team learning.

Multimedial approach to teaching, unlimited access to the Internet, professional internship, textbooks by our professors and international literature from the university library are a straightforward way to fulfill your desire to enter the world of success after completing your studies.

The best proof of the successful work of the University are the professional careers of our graduates, masters and doctors of science that we are very proud of. Our students take leadership positions in numerous domestic and international companies and institutions.

We assure future students that, with the knowledge acquired here, they will build a successful professional career.



/Alfa BK Univerzitet

## Faculty of Mathematics and Computer Sciences

Faculty of Mathematics and Computer Sciences is the first private faculty within the Serbian national university system dedicated to mathematics and computer sciences. The Faculty was established in 2013 as part of Alfa BK University with the new idea of integrated studies of Mathematics and computer sciences. On this faculty, students will gain knowledge not only from computer sciences' field, as well as from the science which deals with hardware, software, computer theory and its usage, and also the knowledge from Mathematics' disciplines continuously throughout all study levels

$$\text{FMCS} + \text{Student} = \text{Knowledge}^2$$

Our aim at the Faculty of Mathematics and Computer Sciences is to provide education and the possibility to perform research focused on the creation and development of computer technology in accordance with human and social values, the building of information systems and the creation of "information society" in which people, their environment and informational technologies act harmoniously.

Whether you are going to develop the next smartphone application, write programs for health devices which will improve our life, use the power of computers for genome analysis, design the next level of crypto-protection in order to protect sensitive data, research various other exciting technologies, or work in education, teaching young generations and preparing them for challenges imposed by the

Information Age, the Faculty of Mathematics and Computer Sciences enables you, our students, to become leaders in the information industry, equipping you with all the necessary tools. Our future will be full of innovations and progress that for now only exist in our imagination, but these dreams will become reality with the help of research, projects and events at the Faculty of Mathematics and Computer Sciences.





# FROM HERE TO INFINITY



## About the Infinity Symbol

Did you know that the mathematical symbol for infinity ( $\infty$ ) has been used for centuries and it can be even be found as company logos, tarot cards, typography, graphic design, even on rebel flag of the Canadian Indigenous Peoples Metis at the beginning of the 19th century.

Many do not know what the sign actually means, few know who invented it, and almost no one knows how the English mathematician John Wallis came up with it in 1655. He is primarily referred to today as one of the pioneers of the infinitesimal calculus, but his scientific beginnings were completely different. We'll explain why the plague outbreak of 1625 in his hometown Ashworth, Kent where he went to school is so important to his life journey.

He was nine years old. He was the third of a total of five children of the priest John Wallis. No matter how bright he was, his life was more or less outlined. To protect him from the plague, his mother and father sent him to a school in nearby Tenderden, which in education terms was a far more serious place than Ashworth.

He was 15 when he seriously gained interest in mathematics at Martin Holbich's school in Felsted. In 1637, at Emanuel College in Cambridge, he graduated with a degree in mathematics and, 18 years later, published the work "Treatise on the Conic Sections."

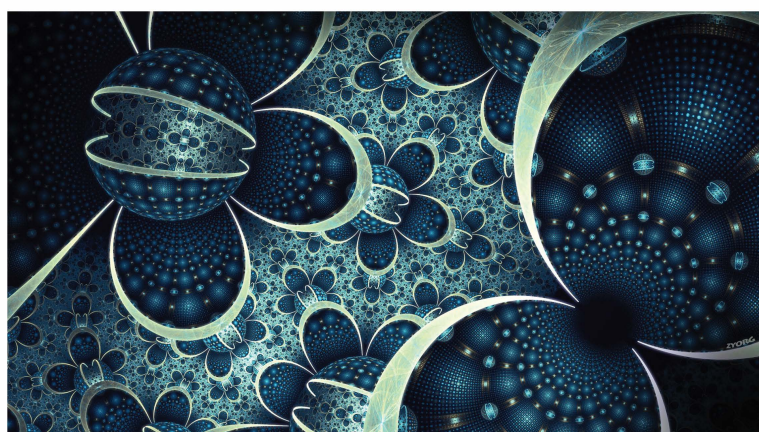
It was about analytic geometry, which meant that, besides studying the properties of second degree curves that were formed by intersections of the heap with planes, he had play around with the mathematical definition of a plane. For him a plane was made up of an infinite number of parallel lines or an infinite number of parallelograms of the same altitude. He found himself in a number of other situations where infinity had to be treated as a mathematical number.

That number had to be recorded somehow. Today it's considered that he came up with the symbol " $\infty$ " in one of the two ways: Either it was a variant of the Greek omega " $\omega$ ", which was less commonly mentioned, or it was a slightly modified way of spelling Roman number 1000. It is not the number known to us today as "M", but rather the one used in his day as "CIC". This opened a door to simple notations of a string with limit values, for example infinitely small as  $1/\infty$ . In any case, the symbol quickly became widely used. Millennia earlier, Indian and Greek mathematicians treated infinity more as a philosophical than a mathematical term



## What are fractals?

A fractal is a never-ending pattern. Fractals are infinitely complex patterns that are self-similar across different scales. They are created by repeating a simple process over and over in an ongoing feedback loop. Driven by recursion, fractals are images of dynamic systems - the pictures of Chaos. Geometrically, they exist in between our familiar dimensions. Fractal patterns are extremely familiar, since nature is full of fractals. For instance: trees, rivers, coastlines, mountains, clouds, seashells, hurricanes, etc. Abstract fractals - such as the Mandelbrot Set - can be generated by a computer calculating a simple equation over and over.



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Niš 069/11-14-422

## Workshop Schedule

**5.12 - 8.12.2019. Belgrade Fair, Hal 3, Stand 8**

### Thursday 5.12.2019

Infinite variants of the "For" and "While" loop 10:00 - 13:00	Mathematical and philosophical aspects of infinity 13:00 - 15:00	The infinite secret about fractals 15:00 - 17:00	Infinity for everyone 17:00 - 19:00
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### Friday 6.12.2019

Let's find out about infinity 10:00 - 13:00	Mathematical and philosophical aspects of infinity 13:00 - 15:00	The infinite secret about fractals 15:00 - 17:00	Programming workshop 17:00 - 19:00
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### Saturday 7.12.2019

Infinite variants of the "For" and "While" loop 10:00 - 13:00	Mathematical and philosophical aspects of infinity 13:00 - 15:00	The infinite secret about fractals 15:00 - 17:00	Infinity for everyone 17:00 - 19:00
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### Sunday 8.12.2019

Let's find out about infinity 10:00 - 13:00	Mathematical and philosophical aspects of infinity 13:00 - 15:00	The infinite secret about fractals 15:00 - 17:00	Programming workshop 17:00 - 19:00
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Faculty of Information Technologies

Faculty of Foreign Languages

Faculty of Mathematics and Computer Sciences

Faculty of Finance, Banking and Auditing