

**VISIT CARD**  
**PROFESSIONAL EDUCATIONAL PROGRAM OF**  
**HIGHER EDUCATION - MASTER'S PROGRAM**  
**DIRECTION: 09.04.03 APPLIED INFORMATICS**  
**PROFILE: INTELLIGENT CONTROL OF DIGITAL ENTERPRISES**  
**APPLICATION 2022.**

**HEAD OF THE DIRECTION**  
**THE PROFESSIONAL EDUCATIONAL PROGRAM MASTER'S LEVEL**



**Starikov Evgeniy  
Nikolayevich**

**Position:** Head of the Department of  
Chess Art and Computer  
Mathematics

**Academic degree:** Candidate of  
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**Scientific title:** Docent

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**Voronov Michail  
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**PROFILE CHARACTERISTICS:** The Profile "intelligent control of digital enterprises" is focused on the preparation qualified specialists who can manage digital enterprise and lifecycle of the information systems using intelligent information and communication technologies, as well as carry out informational and analytical support of decision-making processes in commercial organizations and government agencies with means of modern information technologies. In accordance with the realities of the digital economy.

#### **ПРИЕМУЩЕСТВА ОБУЧЕНИЯ**



A unique program in which the study of business informatics is combined with the achievements of the 4th industrial revolution (Industry 4.0). Today, it is expected from the 4th industrial revolution to bring new, more efficient management models. It is the management models that compete in the era of a digital economy in world markets, not goods and services.



The scientific and research potential of the department of "chess art and computer mathematics" is unique. Professor and Docents of the department have won in the competitions of the Governor of the Sverdlovsk Region in the nominations "The Best Project in the field of information technology", "The Best IT project of young scholars." The department performs fundamental scientific research within the framework of the RFBR grants.



Careful studying of the main tendencies of digital transformation in the world is being held, and above all: Internet of things (IOU), application programming interfaces (API), large data (Big Date) and analyst, smart machines and artificial intelligence (Artificial Intelligence, AI), cryptocurrency and technology of blockchain.



The possibility of participating in the creation and maintenance of technologies in the field of working with data, such as artificial intelligence, cloud computing, identification technologies, image recognition and image processing.



Obtaining the experience of developing corporate information systems for intelligent control of digital enterprises and design of intelligent interfaces in an ASP.NET Core MVC 3 and Angular 8 environment.

#### **BASIC TRAINING COURSES**

##### **Intellectual technologies and cybersecurity of a digital enterprise**



The goal of the course is the formation of a modern understanding and mastering new knowledge related to intellectual technologies generating new threats - cyber threats. To combat them, we study a new class of security systems: cybersecurity systems of digital production.

##### **Support systems of decision making process**



The goal of the course is the formation of modern management thinking and the development of new knowledge that allows you to go to a new level of economy, where in each area, information and telecommunication technologies will be actively used in each sector of professional activities of university graduates. The new level (entry) of the economy was called "Digital Economics".

##### **Big data processing technologies**



The goal of the course is the formation of modern IT thinking and mastering new knowledge that allows you to move to minimizing the involvement of a person in the decision-making process. This is based on the concept of Data Science (literally "data science"). According to this concept, large data (Big Date) manages a statistical model. We consider NOSQL, Adabas and Natural technologies, as a means of working with Big Data.

### Expert systems in risk management inside digital enterprise



The goal of the course is the formation of a modern understanding and mastering new knowledge relating to the digital transformation of material production, including as a mandatory component of "expert systems" and machine learning technology. Currently, the discrete and processor manufacturing of the Russian Federation expands the use of expert systems to make decisions in conditions of uncertainty.

### Fundamental basis of intelligent control of the digital enterprise



The goal of the course is the formation of modern IT thinking and mastering new knowledge that allows you to go to digital transformation of material production in order to eliminate information barriers inside the enterprise, the formation of a single information space; Increased manageability of the enterprise through the provision of information transparency, the efficiency of management, coherence made decisions.

### Algorithms of machine learning



In intellectual management of the digital enterprise, machine learning is important. We consider and study the .NET Framework platform to create, deploy and launch Web services and machine learning applications

## SCIENTIFIC HEAD OF THE DEPARTMENT



Scientific head of the department of chess art and computer mathematics is Anatoly Evgenievich Karpov, the twelfth world champion in chess (1975-1985), deputy of the State Duma of the Federal Assembly of the Russian Federation.

## FAMOUS TEACHERS



**Labanets Valery Grigorievich**, Professor of the Department of "Chess Arts and Computer Mathematics", Doctor of Science, Professor, Laureate of the Prize of the Governor of the Sverdlovsk Region in the field of information technology in 2020 in the nomination "For an outstanding contribution to the development of scientific research in the field of information technology" Actual member of the Academy of Engineering Sciences named after A. M. Prokhorov. From 1988 to 2000 he was heading the department "Automation and Information Technologies" UGTU-UPI. 1998 to 1999 he worked as Dean Radiotechnical Faculty of USTU-UPI. From 1999 to 2002 - Scientific Head of Computer Vision Department of the International Lab Digital Signal Processing (TICSPP, Tampere University & Nokia, Finland). From 2003 to 2005 - Scientific Head of the American Corporation "ENERSOFT" on the development of image processing software for promising telecommunication and information systems. Repeatedly invited to leading foreign universities to read lectures. More than 10 times won grants of the RFBI in the direction of informatics and computing equipment. Author of more than 140 scientific publications, 16 monographs and 12 textbooks. It has more than 20 certificates of state registration of programs and databases for computer.



**Chasovskich Victor Petrovich**, Professor of the Department of Chess Art and Computer Mathematics, Doctor of Science, Professor, Double Winner of the Prize of the Governor of the Sverdlovsk Region in the field of information technologies in 2020 and 2015 in the nomination "For an outstanding contribution to the development of scientific research in the field of information technology", Honored High School Worker RF, Academician of the Russian Academy of Engineering Sciences. A.M. Prokhorov, Academician of the Russian Academy of Natural Sciences, Full Member European Academy of Natural History. From 1995 to 2019, he was the director of the Institute "Economics and Management", 1992 to 2020 he was headed by the Department of Applied Informatics of the Ural State Forestry University. For 15 years, he participated in the project of the Ministry of Education and Science of the Russian Federation "Oasis Minvuza" and "Typical ASU of the University". He was the supervisor of the ASOD Orion project for machine-building enterprises of the defense complex. Awarded the certificate of diploma of the Ministry of Activities of the Russian Federation; sign "Honorary Worker of Higher Professional Education of Russia." The Presidium of Rae assigned the honorary title "Honored Worker of Science and Education" and the honorary title "Founder of the Scientific School"; Rai awarded the sign of the "Golden Department of Russia" (for lecturers and achievements in the field of education in Russia); Laureate of Professor A.S. Prize Popova; Awarded the Gold Medal A.S. Popova. Author of more than 280 scientific publications, 14 monographs and 15 tutorials. It has more than 70 certificates of state registration of programs and databases for computer.

## FUTURE CAREER



The program prepares specialists who carry out practical activities on the use of computer technologies when creating, analyzing and using process models and objects to solve problems of science, technology, economics and management. Graduates own the newest frameworks for cross-platform web development. Owned platforms and technologies of a digital economy (artificial intelligence systems, Big Date, blockchain technology, cloud computing). Theoretically and practically prepared for intelligent control of digital enterprises.

## Area of professional activity



Masters of business informatics are becoming in demand in modern conditions, since they are able to solve professional tasks for creating digital enterprises of any level of complexity, information flow management of the organization, implementation and support of innovative projects on the informational and management and management activities of the Organization in a digital economy. They successfully work as business analysts, departments, IT consultants, network administrators in research organizations and banking structures, state and municipal bodies, joint-stock companies and private companies.

## STRATEGIC PARTNERS

- SKB "Contour";
- LLC "Company Tandem";
- Corus Service LLC;
- Company NPO "Sapphire";
- LLC "Octonica";
- SIMA-LEND LLC;
- Federation of Chess of the Sverdlovsk Region;
- Sverdlovsk Regional Office "Union of Machine

## FORMS OF COOPERATION

- lectures, seminars using modern multimedia technologies;
- coordination of the topics of WRC, certification;
- assistance in conducting all types of practices;
- Online support for improving the educational process;
- attracting students to research activities under the guidance of teachers;
- participation of students in conferences, forums and

<p>Builders of Russia";</p> <ul style="list-style-type: none"> <li>• Union of defense industries of the Sverdlovsk region;</li> <li>• JSC "Production Association" Ural Opto-Mechanical Plant "them. E.S. Yalasova ";</li> <li>• JSC "Scientific and Production Association of Automatics. Academician N. A. Semikhatova ";</li> <li>• JSC "Uralvagonzavod Scientific and Production Corporation. F. E. Dzerzhinsky ";</li> <li>• PJSC "Machine-building plant named after M. I. Kalinin";</li> <li>• Institute of Mathematics and Mechanics URO RAS;</li> <li>• Institute of Economics URO RAS;</li> <li>• and others.</li> </ul>	<p>round tables organized by the Department and University;</p> <ul style="list-style-type: none"> <li>• expert opinions on employers' applications, development of documents and other projects;</li> <li>• participation in solving specific applied tasks in industry enterprises;</li> <li>• Participation in the work of the Ukrainian Chess Club.</li> </ul>
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