

Faculty of Informatics and
Digital Technologies,
University of Rijeka

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Faculty structure

FACULTY OF INFORMATICS AND DIGITAL TECHNOLOGIES

CHAIRS

7

Chair of Information Systems

Chair of Business Informatics

Chair of Intelligent systems

Chair of Multimedia Systems and E-learning

Chair of Software Development

Chair of Communication and Computer Systems

Chair of Applied Mathematics and General Subjects

LABORATORIES

5

Laboratory for Information Systems Development

Laboratory for the Application of IT in Education

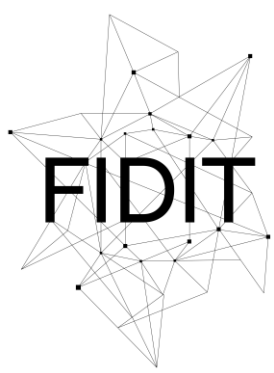
Laboratory for Data Engineering and Computational Linguistics

Laboratory for Pattern Recognition and Soft Computing

Laboratory for Semantic Technologies

FIDIT





- **Scientific fields:**

- Information and Communication Sciences
- Computer Science

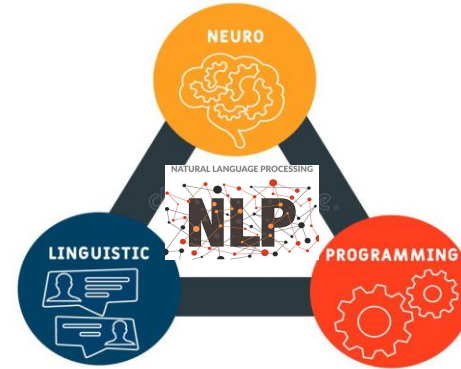
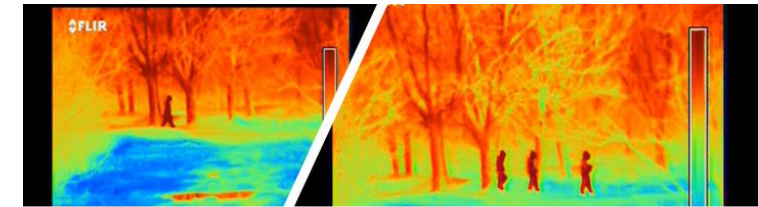
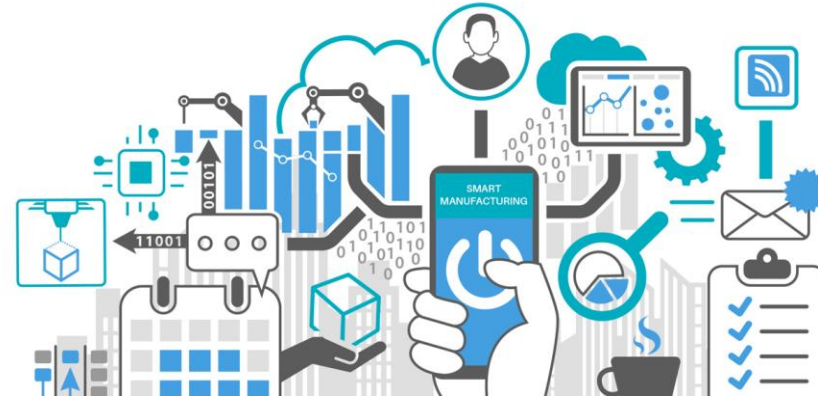
- **Employees:**

- 7 Full professors
- 4 Associate professors
- 7 Assistant professors
- 1 Postdoctoral researcher
- 9 Assistants
- 1 Lecturer
- 1 Office Manager



Research

UNIRI



Projects

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Horizon 2020
European Union funding
for Research & Innovation



UNIRI



**EUROPEAN STRUCTURAL
AND INVESTMENT FUNDS**

AIRI – Center for Artificial Intelligence and Cybersecurity



AIRI
Center for Artificial Intelligence
and Cybersecurity

- The first center for artificial intelligence at the university level in the Republic of Croatia
- **Multidisciplinary center** - technological, legal, ethical, social aspects of AI implementation
- **Goals:**
 1. connect scientists,
 2. cooperation with the economy and public sector,
 3. proactive internationalization
- A testing ground for starting partnerships, exchanging knowledge and ideas, putting the competences of the University of Rijeka to solve economic and social challenges
- **RIMaP** – Regional digital innovation platform for academic, private and public sector networking
- Overview of work results in 2021:



- 60 scientists (27 PhD students)
- 59 scientific papers in 2021 (31 in WoS)
- 2 defended doctoral theses in 2020.
- Editors in 12 foreign scientific journals (WoS)
- 14 invited lectures
- 6 awards

AIRI – Center for Artificial Intelligence and Cybersecurity

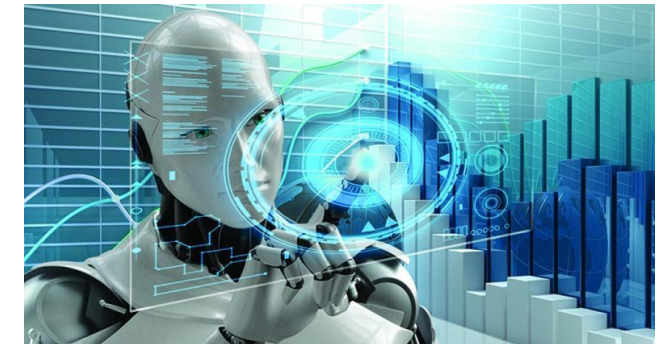
Research groups:

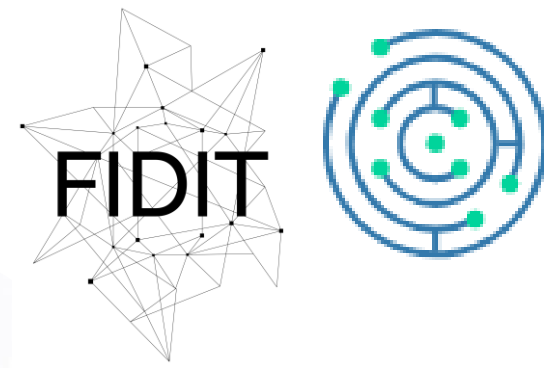
- I) Technological development
 1. machine learning,
 2. image and video analysis,
 3. computer vision, virtual and augmented reality,
 4. natural speech and language processing,
 5. cyber security,
 6. information processing and pattern recognition,
 7. in-depth data analysis, extensive and open data
- II) Legal and ethical issues
- III) Application of artificial intelligence: biomedicine and drug design
- IV) Application of artificial intelligence: smart and sustainable development of society
 1. application of *blockchain* technologies
 2. artificial intelligence in education
- V) Application of artificial intelligence: preservation of cultural identity



AIRI

Center for Artificial Intelligence
and Cybersecurity





Laboratory for pattern recognition and soft computing



Assoc. prof.

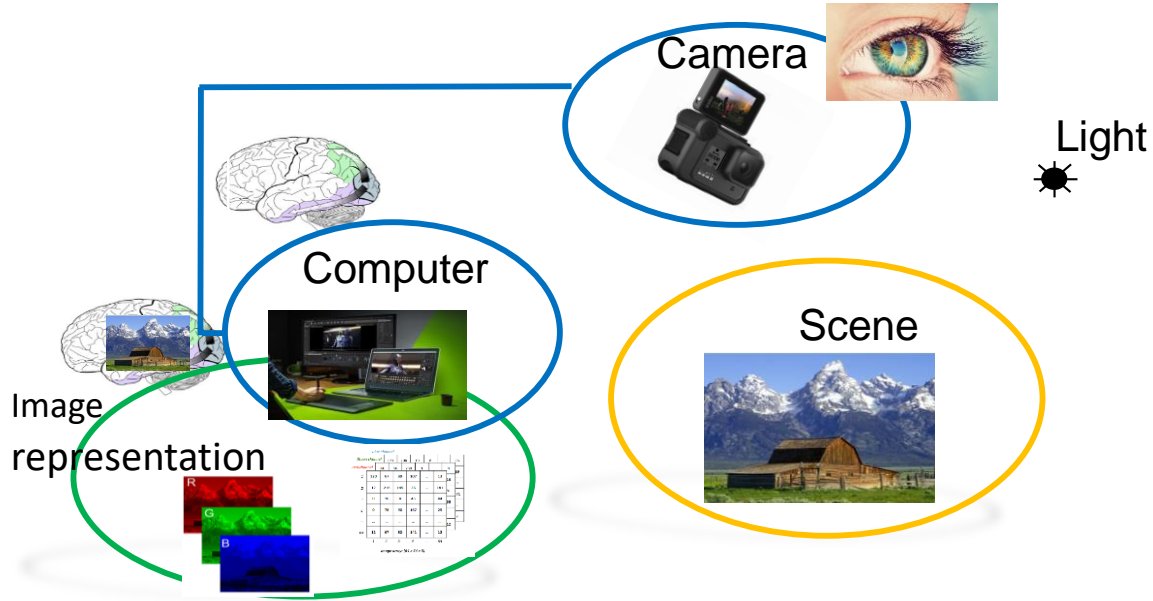
Marina Ivašić-Kos

Dean of the Faculty of Informatics and Digital Technologies, University of Rijeka
Head of the Laboratory for Computer Vision, Virtual and Augmented Reality of the
Center for Artificial Intelligence and Cyber Security, University of Rijeka

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Research field: Computer vision



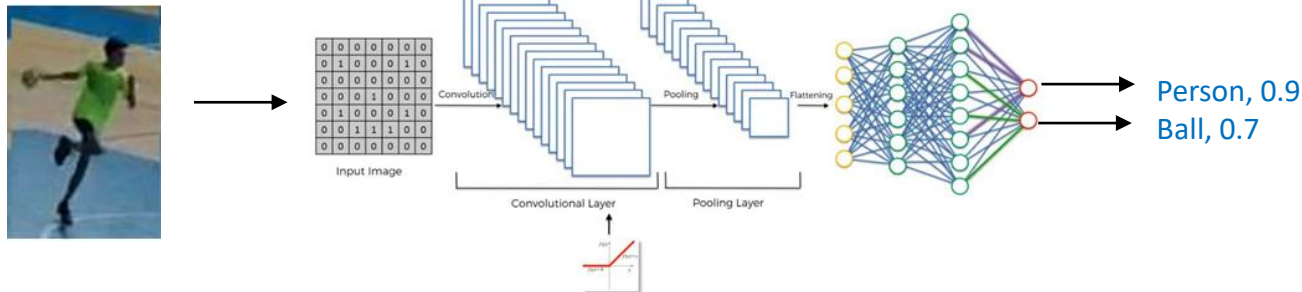
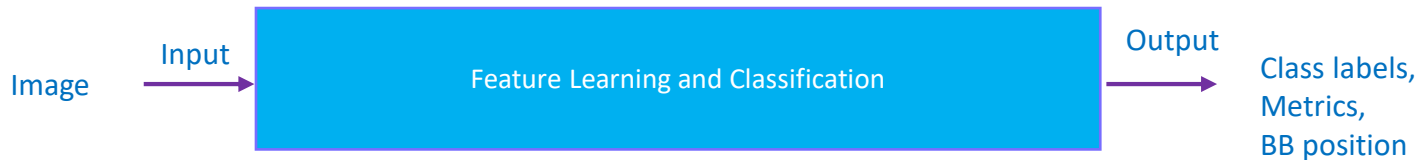
- **Research focus:** basic and applied research in computer vision related to image and video analysis that enable interpretation and understanding of the visual world

- **Goal:**

- develop methods and algorithmic solutions for computer vision tasks

- image classification, detection and tracking of persons and objects, recognition of actions and behaviors, understanding the scene and image interpretation

- combine vision-based technology with virtual and augmented reality in a variety of applications



Current projects

Automatic recognition of actions and activities in multimedia content from sports domain (RAASS)

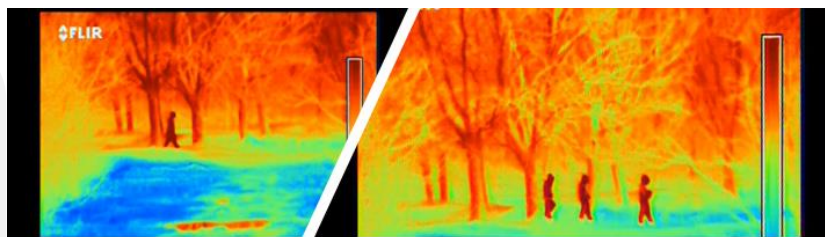
Project for Career Development of Young Researchers – Training of New Ph.D.s, mentor: Marina Ivasic-Kos

Knowledge-based Approach to Crowd Analysis in Video Surveillance (KACAVIS)

Detection of persons in search and rescue operations (thermal images, drones)

Strengthening the capacity for excellence of Slovenian and Croatian innovation ecosystems to support the digital and green transitions of maritime regions (INNO2MARE)

T3.3 R&I pilot project: Autonomous shipping technology

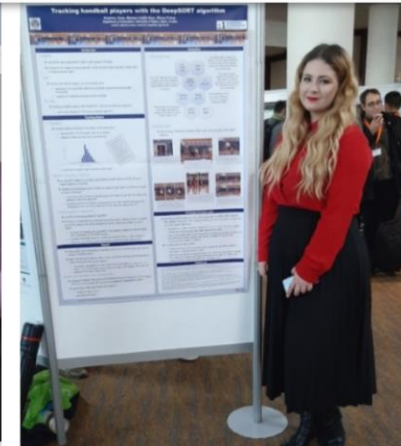
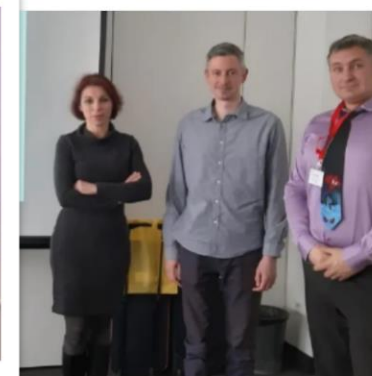
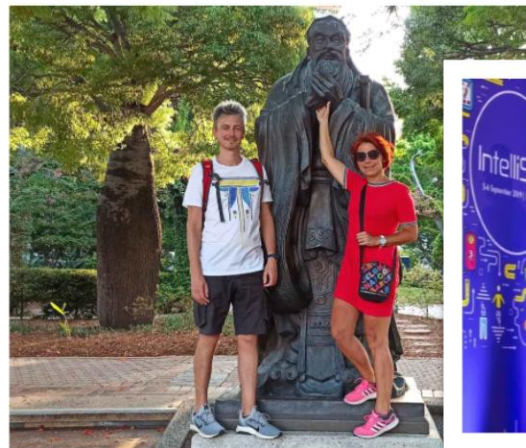


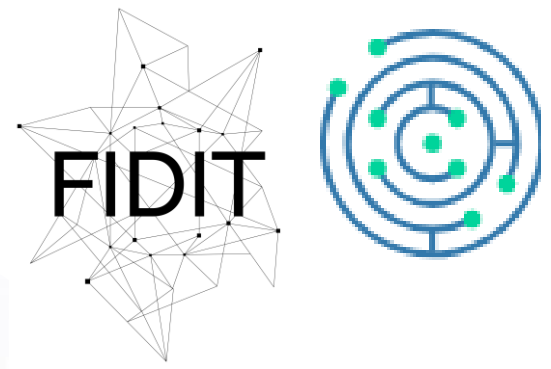
Horizon 2020



Group members and associates

- **Head of the laboratory**
- Assoc. Prof. Marina Ivašić-Kos, PhD
- **INFRI members:**
- Asist. Prof. Miran Pobar, PhD
- Kristina Host, PhD student
- **Members from other institutions**
- Romeo Šaina, PhD student
- Ingrid Hrga, PhD student
- Saša Sambolek, PhD student
- Ivan Šimac, PhD student
- **Industry members:**
- Asist. Prof. Aleksandar Vorkapić, PhD
- Mate Krišto, PhD
- Matija Burić, PhD student
- Goran Paulin, PhD student
- **External collaborators:**
- Prof. Bojan Čukić
- Prof. Jordi Gonzalez Sabaté
- Prof. Slobodan Ribarić





Laboratory for Semantic Technologies



Prof.

Ana Meštović

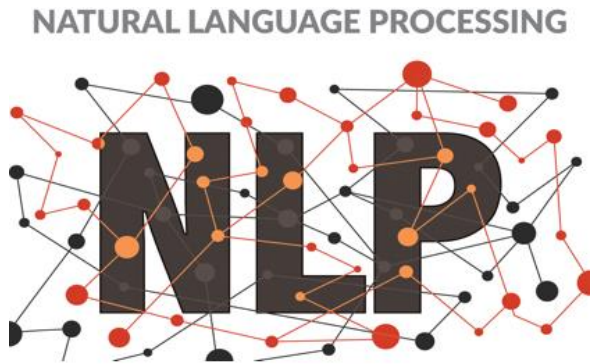
Head of the Laboratory for Semantic Technologies

Faculty of Informatics and Digital Technologies, University of Rijeka

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Projects



Complex networks

- **MESOC** - Measuring the Social Dimension of Culture, HORIZON, 2019-2023
- **LangNet** - Keyword Extraction and Summarization Based on Language Networks, University of Rijeka, 2019-2023
- **SemText** – Measuring the semantic similarity of texts, University of Rijeka, 2019-2023
- **Multi3Generation** - Multi3Generation: Multi-task, Multilingual, Multi-modal Language Generation, COST project 2019-2023
- **InfoCoV** - Multilayer Framework for the Information Spreading Characterization in Social Media during the COVID-19 Crisis, Croatian science foundation, 2020-2022



COST Multi3Generation



MULTI-TASK
MULTI-LINGUAL
MULTI-MODAL



Researchers

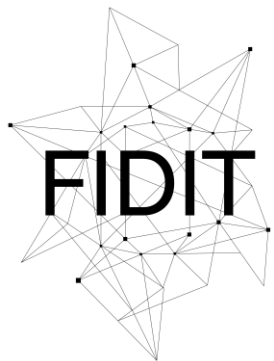
- Head of the Lab: **Ana Meštrović**
- Researchers: **Sanda Martinčić-Ipčić, Slobodan Beliga,**
- PhD students: **Karlo Babić, Milan Petrović, Petar Kristijan Bogović, Dino Aljević, Tedo Vrbanec, Vlatka Davidović, Alen Vorkapić, Marko Pribisalić**
- External collaborators:
 - **Mihaela Matešić**, Faculty of Humanities and Social Sciences, University of Rijeka
 - **Ljupčo Todorovski**, University of Ljubljana, Faculty of Mathematics and Physics
 - **Zoran Levnajić**, Complex systems and data science lab, Faculty of Information Studies in Novo Mesto
 - **Francesco Guerra**, Department of Engineering “Enzo Ferrari”, University of Modena and Reggio Emilia
 - **Andrea Calí**, University of London, Birkbeck College



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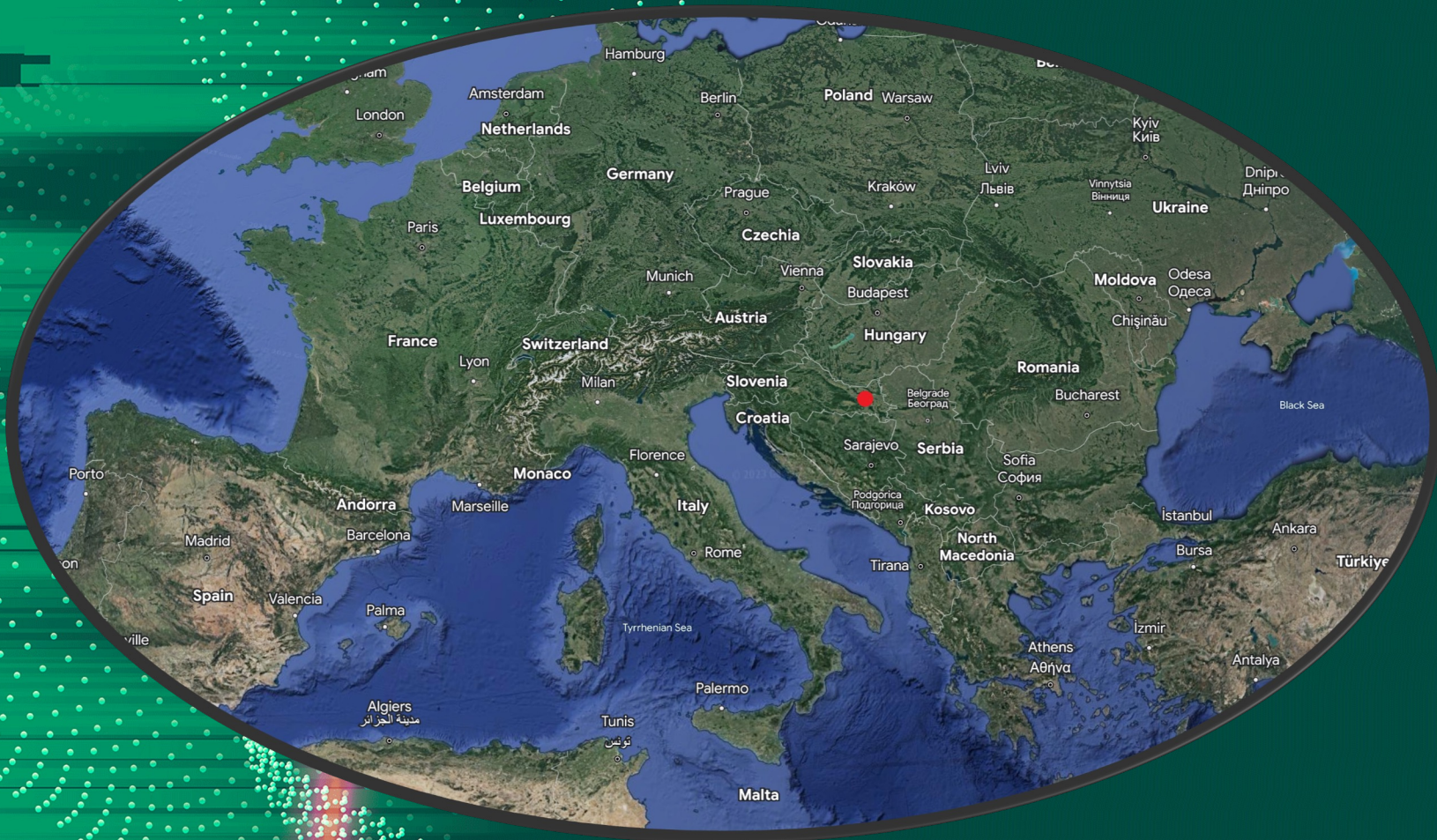
INFRI

Thank you for your attention!

DEPARTMENT OF BIOLOGY

JOSIP JURAJ STROSSMAYER
UNIVERSITY OF OSIJEK

CROATIA





01

Osijek

80 000 people

02

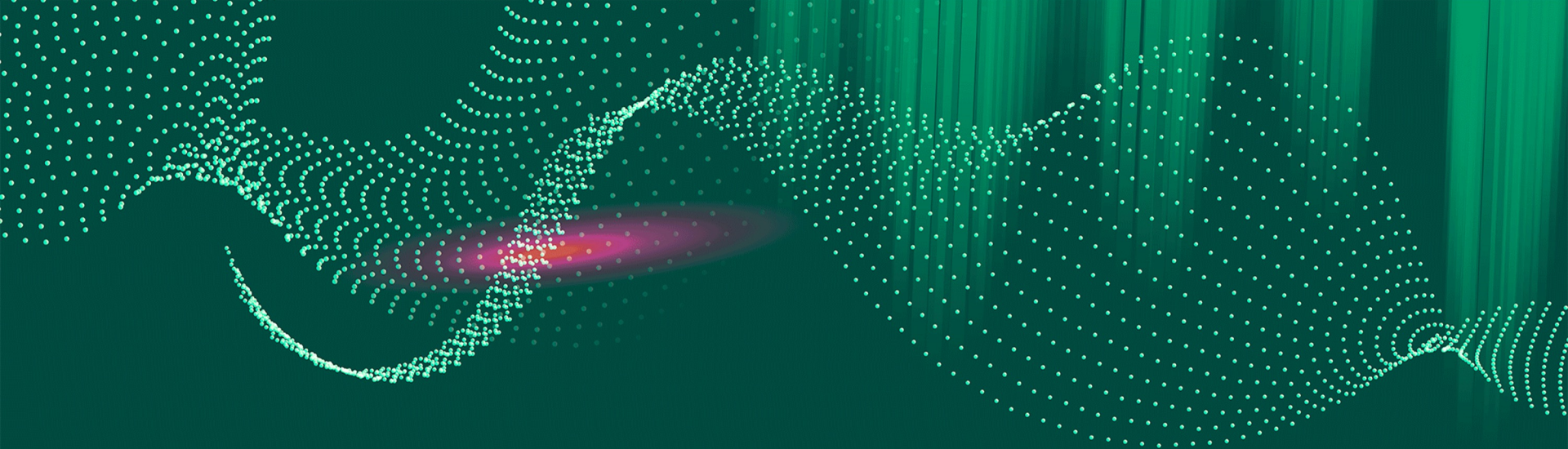
University

17 000 students

03

Campus

Department of
biology



ABOUT US

Sub-department of

**WATER
ECOLOGY**

**BIOCHEMISTRY
AND MOLECULAR
BIOLOGY**

**QUANTITATIVE
ECOLOGY**

ZOOLOGY



Important research areas:

- 1. Assessment of global and regional impacts on freshwater biotic communities**
 - 2. Exploring the impact of foreign species on stability of indigenous freshwater and terrestrial communities**
 - 3. Terrestrial ecosystem research**
 - 4. Research on the development process and adaptation of various groups of organisms**
 - 5. Research on pathogenic organisms and microorganisms**
 - 6. Ecotoxicological research**
 - 7. Application and development of advanced computational tools in ecology, ecotoxicology, environmental monitoring and management**
 - 8. Synthesis and testing of the properties of heterocyclic compounds**
 - 9. The role of the central and peripheral nervous system in the development of metabolic disorders**
 - 10. Professional development of pedagogical skills of teachers, lecturers and university teachers**
- 

Projects



To all who are willing to collaborate with us

WELCOME!

The background features a dark teal gradient. In the lower half, there are decorative elements: a series of green particle trails forming a wave-like pattern on the left, a glowing purple and pink orb in the center, and another green particle trail on the right.

THANKS!

Do you have any questions?

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<https://www.biologija.unios.hr/about-us/>



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