

**Projects & Products** 

SPEECH SYNTHESIS AND RECOGNITION LABORATORY OF UNITED INSTITUTE OF INFORMATICS PROBLEMS OF NATIONAL ACADEMY OF SCIENCES OF BELARUS

Title: Speech Synthesis and Recognition Laboratory of United Institute of Informatics

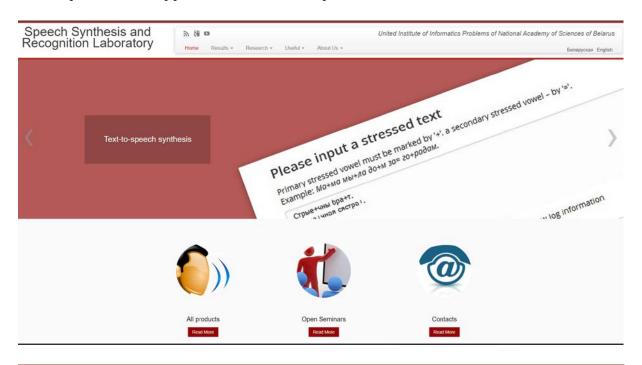
Problems of National Academy of Sciences of Belarus

**Product Type:** web-site **Link**: <a href="http://ssrlab.by">http://ssrlab.by</a>

Languages: Belarusian, English

Tasks: front-end, back-end, multilingual, content management, launch on a client's

server, permanent support, automatic backup





Title: International Conference on Computational Linguistics NooJ2015

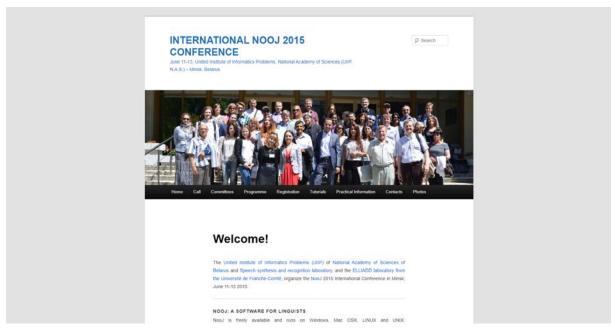
**Product Type:** web-site

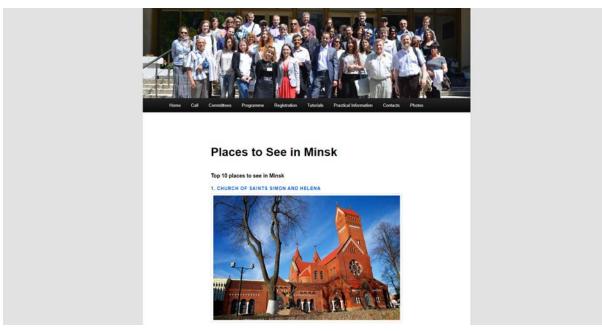
Link: <a href="http://nooj2015.ssrlab.by">http://nooj2015.ssrlab.by</a>

Languages: English

Tasks: front-end, back-end, multilingual, content management, launch on a client's

server, permanent support





Title: Belarusian Oral History Archive

**Product Type:** web-site

Link: <a href="http://www.nashapamiac.org">http://www.nashapamiac.org</a>
Languages: Belarusian, English

Tasks: re-design of the front-end, a structure and a menu update





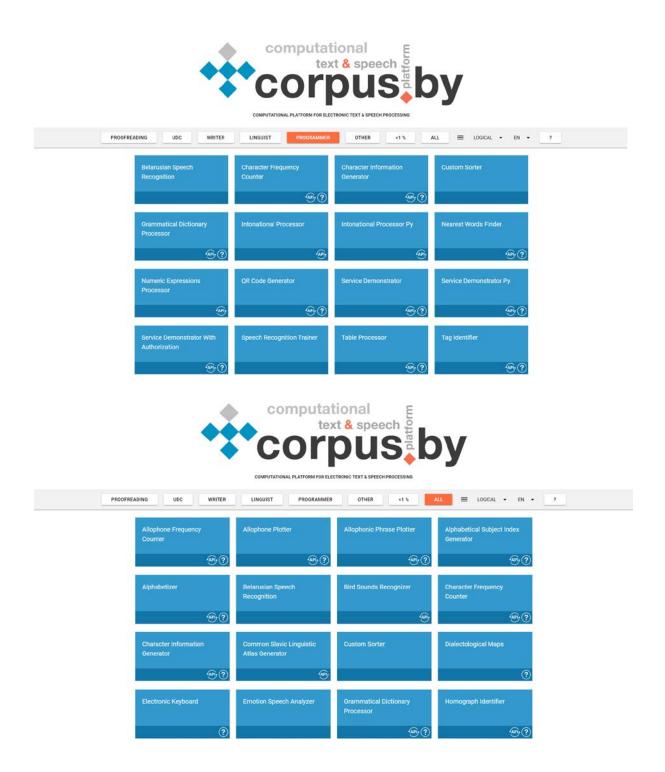
Title: Computational Platform For Electronic Text & Speech Processing

**Product Type:** web-site **Link**: <a href="http://corpus.by">http://corpus.by</a>

Languages: Belarusian, English

**Works**: development of the services for text, signal and speech processing with user guides; front-end, back-end, multilingual, content management, launch on a client's server, permanent support, automatic backup, development of an adaptive education

scenario of computational linguistics



Title: Historical cultural platform «KROKAPP – custom audio guide for Belarus»

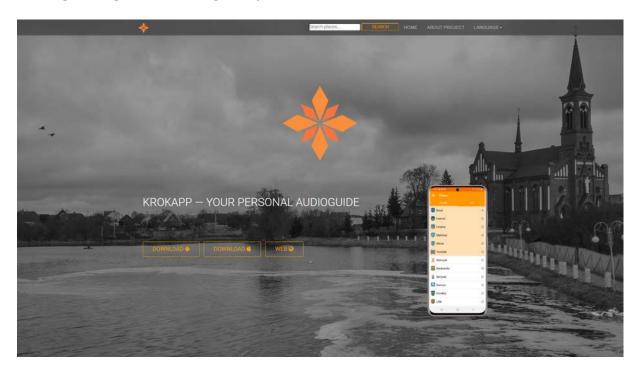
**Product Type:** web-site, mobile Android app

Link: <a href="http://krokapp.by">http://krokapp.by</a>

Languages: Belarusian, English, Russian

**Tasks**: front-end, back-end, development and management of multilingual content, launch on a client's server, permanent support, automatic backup; Android app

development, publish in Google Play, advertisement







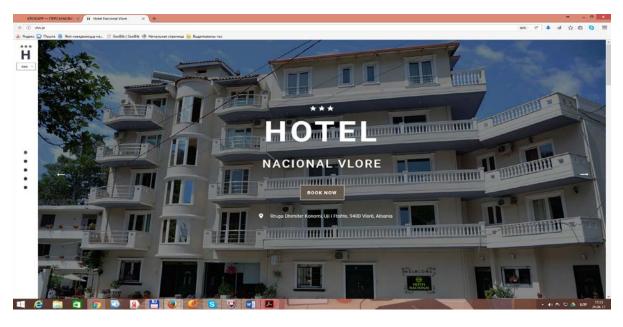


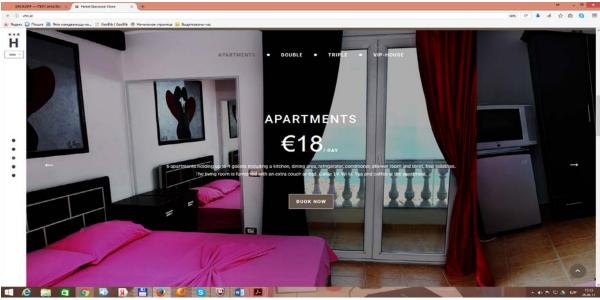
Title: HOTEL NACIONAL VLORE

**Product Type:** web-site **Languages**: Russian, English

Tasks: front-end, back-end, multilingual, content management, launch on a client's

server, permanent support





**Title:** "INTON TRAINER" software system to train learners in producing a variety

intonation patterns of speech

**Product Type:** software system INTON@TRAINER, promo web-site

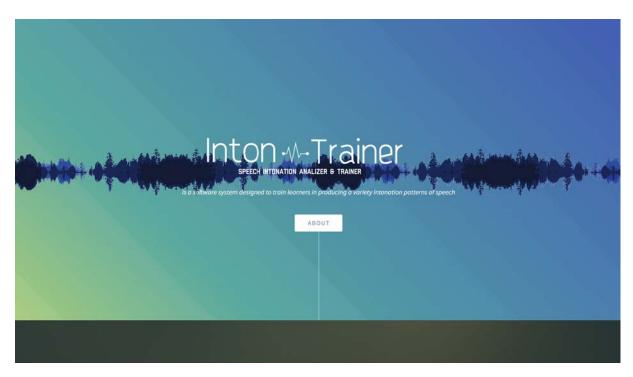
**Link**: <a href="https://intontrainer.by/">https://intontrainer.by/</a>

Languages: English, Belarusian, British English, American English, Chinese, German,

Russian

Works: INTON@TRAINER development; front-end, back-end, multilingual content

management, launch on a server, permanent support; user guides writing





Title: Voice Calculator

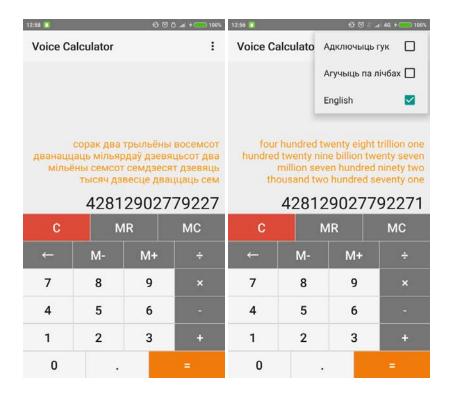
Product Type: mobile application

Link: https://play.google.com/store/apps/details?id=by.ssrlab.ssrlab calc

**Languages**: Belarusian, English

Works: front-end, back-end, content management, publishing on Google Play,

permanent support.



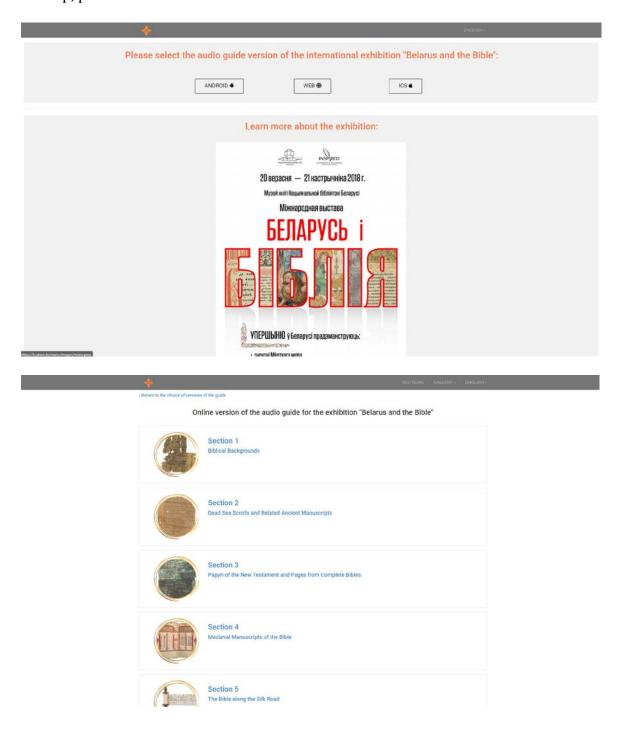
Title: The audio guides of the international exhibition "Belarus and the Bible"

**Product Type:** web, android and ios audio guides software; 6000 A5 booklets, 202 x 85

cm banner

Link: <a href="https://www.krokam.by/belarus-bible">https://www.krokam.by/belarus-bible</a>
Languages: Belarusian, English, Russian

**Works**: web, Android and iOs audio guides software development, publication in Google Play, ITunes markets; front-end, back-end, audio recordings in 3 languages, multilingual translation and corrections, content management, permanent support, automatic backup, promotion

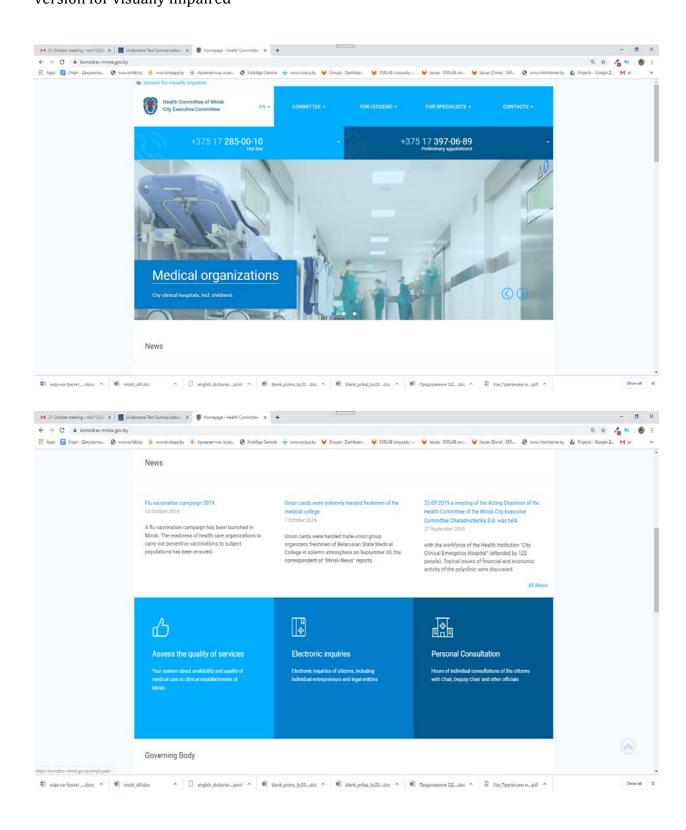


**Title:** The website of the Health Committee of Minsk City Executive Committee

**Product Type:** web-site

Languages: Belarusian, English, Russian

**Tasks**: front-end, back-end, multilingual translation and corrections, content management, permanent support, structure and menu updates, automatic backup, version for visually impaired

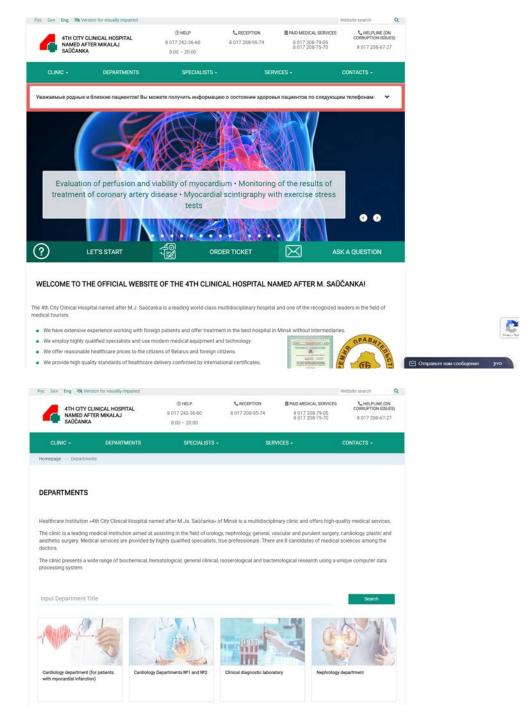


Title: The website of the 4th city clinical hospital named after Mikalaj Saŭčanka

**Product Type:** web-site **Link**: <a href="https://4gkb.by/">https://4gkb.by/</a>

Languages: Belarusian, English, Russian

**Tasks**: front-end, back-end, multilingual translation and corrections, content management, permanent support, automatic backup, version for visually impaired



Title: The website of the Minsk City Gynecological Hospital

**Product Type:** web-site

Languages: Belarusian, English, Russian

**Tasks**: front-end, back-end, multilingual translation and corrections, content management, permanent support, structure and menu updates, automatic backup,

version for visually impaired



Welcome to the website of the City Gynecological Hospital

The clinic employs 49 doctors, 1 of which is Honored Doctor of the Republic of Belarus, 3 doctors have the degree of candidate of medical sciences, 17 doctors with the highest qualification category, 18 doctors with the 1st qualification category.

The hidhle experienced gynecologists-endocrinologists will conduct a comprehensive examination that allows them to determine the patient's health status, to make an accurate diagnosis and to choose the right treatment tactic.

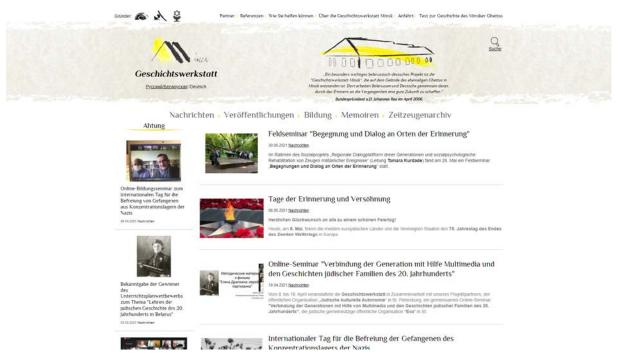
Press-releases For patients Special information

**Title:** The web-site of the Historical Workshop

**Product Type:** web-site

Link: <a href="http://www.gwminsk.com/">http://www.gwminsk.com/</a>

**Languages**: Belarusian/Russian, Deutch **Tasks**: Improvement of the web-site software





Title: Audioguides for the archaeological museum «Biarescie»

Product Type: website, Android & iOS programs; 1000 2-language euroflyers, 202 x 85

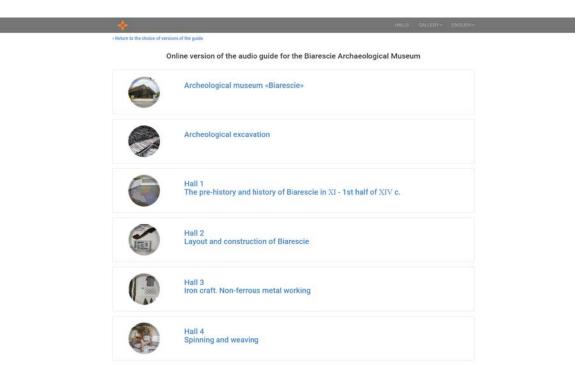
cm Velcom banner, set of stickers with QR codes

Link: <a href="https://www.krokam.com/biarescie">https://www.krokam.com/biarescie</a>

Languages: Belarusian, English, Russian, Polish, Chinese

**Tasks**: development of the interface and server parts, audio recordings of 5 language versions, multilingual translation and editing, location and content management, constant support, creating backups, advertising and promotion





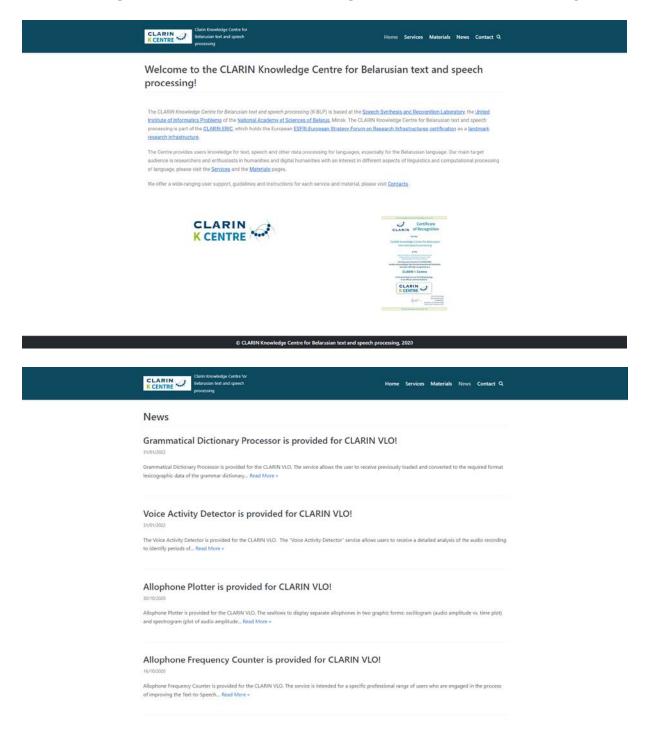
Title: CLARIN Knowledge Centre for Belarusian text and speech processing

**Product Type:** website

Link: <a href="https://clarin-belarus.corpus.by/">https://clarin-belarus.corpus.by/</a>

Languages: English

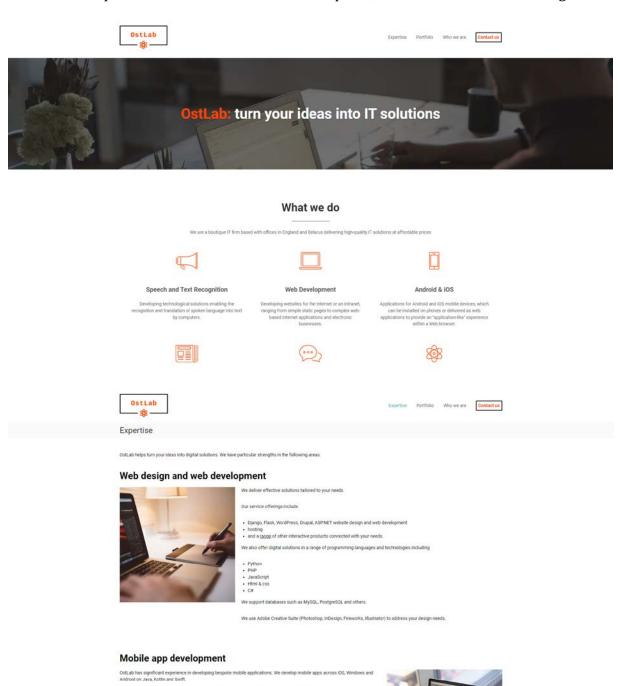
Tasks: development of the interface and server parts, location and content management



Title: OstLab

Product Type: web-site Link: <a href="https://ostlab.uk/">https://ostlab.uk/</a> Languages: English

Tasks: development of the interface and server parts, location and content management



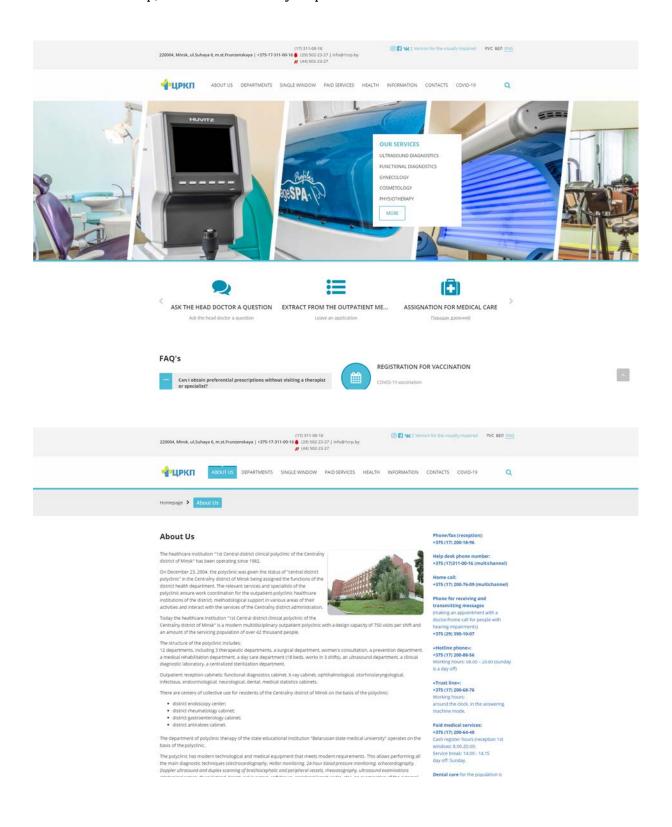
**Title:** 1st Central district clinical polyclinic of the Centralny district of Minsk

**Product Type:** web-site **Link**: <a href="https://lcrp.by/">https://lcrp.by/</a>

Languages: English, Belarusian, Russian

Tasks: multilingual translation and corrections, content management, permanent support,

automatic backup, version for visually impaired



**Title:** Historical cultural platform «KROKAM» — personal audio guides and navigators

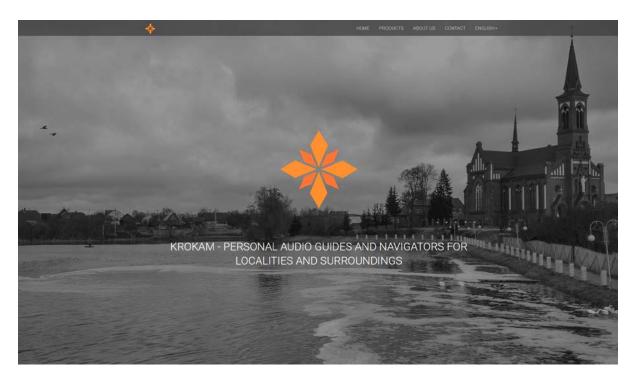
for localities and surroundings

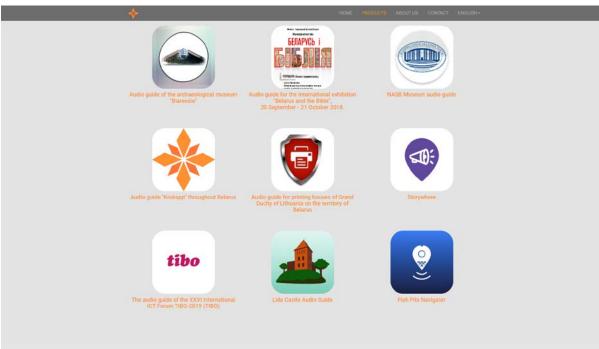
**Product Type:** web-site, mobile Android and iOS app

Link: <a href="https://www.krokam.com/">https://www.krokam.com/</a>

Languages: Belarusian, English, Russian

**Tasks**: front-end, back-end, development and management of multilingual content, launch on a client's server, permanent support, automatic backup; Android and iOS





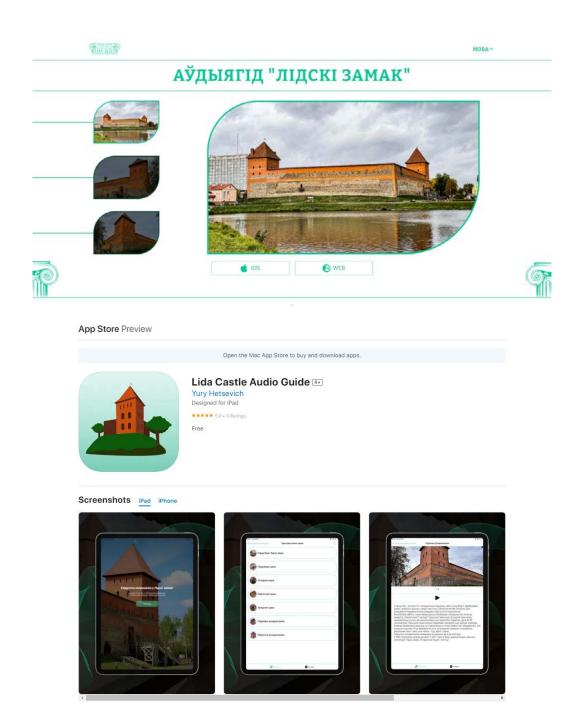
Title: Audio guide to the object "Lida Castle"

**Product type:** website, mobile app for iOS

Link: <a href="https://lida-zamak.krokam.by/">https://lida-zamak.krokam.by/</a>

Languages: Belarusian

**Tasks:** design (front-end), software implementation of the Web platform (back-end), content verification, launch on the client's server, support, automatic backup of program code and data, QR codes creation for exhibits, software implementation of a mobile application for iOS, publication in AppStore.



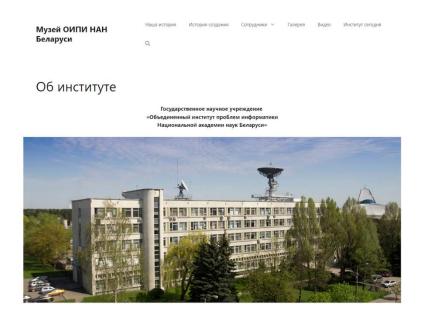
Title: Museum of the UIIP of the National Academy of Sciences of Belarus

**Product Type:** web-site

Link: <a href="https://museum.uiip.by/">https://museum.uiip.by/</a>

Languages: Russian

**Tasks**: development of interface and server parts, deployment and content management, launch on the client's server, support, automatic backup of program code and data.



Title: Navigator on fish wintering pits "Fish Pits"

Product Type: website, mobile iOS app

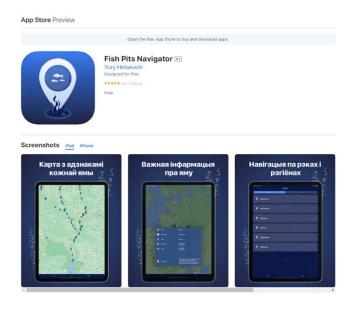
Link: <a href="https://fish-pits.krokam.by/#">https://fish-pits.krokam.by/#</a>

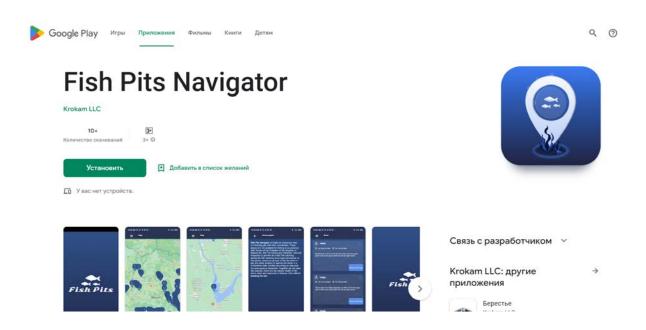
Languages: Belarusian, English, Russian

**Tasks**: design (front-end), software implementation (back-end), development and management of multilingual content, launch on the client's server, permanent support, automatic backup of program code and data (automatic backup), software implementation of mobile applications for iOS and Android, publication in the AppStore and Google Play.









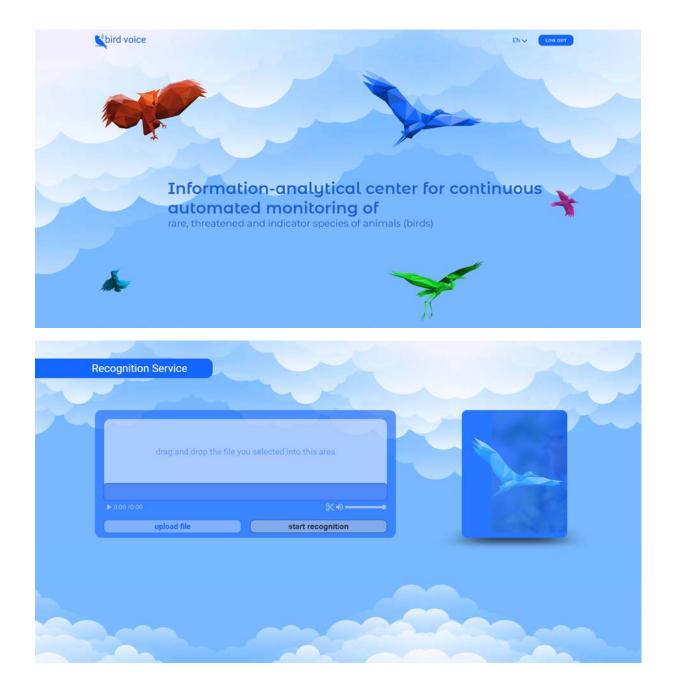
Title: Informational and Analytical Center for permanent automated monitoring

**Product Type:** website

Link: <a href="https://bird-voice-iac.ssrlab.by/">https://bird-voice-iac.ssrlab.by/</a>

Languages: Belarusian

**Tasks:** design (front-end), software implementation (back-end), automatic backup of program code and data (automatic backup), 2 models of bird voice recognition have been developed.



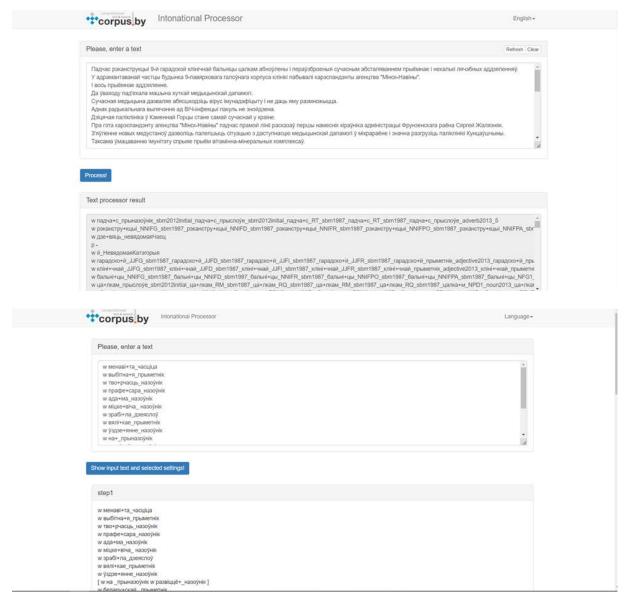
Title: Development of methods and algorithms for prosodic speech markup

**Product Type:** application in web version

**Link:** <a href="https://corpus.by/IntonationalProcessor/?lang=be">https://corpus.by/IntonationProcessor/?lang=be</a>, <a href="https://corpus.by/IntonationProcessorPy/?lang=be">https://corpus.by/IntonationProcessorPy/?lang=be</a>

Languages: English, Belarussian

**Tasks:** We developed algorithms for extracting prosodic characteristics of textual information (intonation portraits) and their syntagmatic delimitation for artificial speaking, further improvement of automatic systems for analysis and synthesis of Belarusian literary speech. These algorithms allowed automating the tagging of text information and formed the basis for creating services with a multilingual interface "Intonational processor" and "Intonational processor Py", defining punctuation and lexical syntagmas at a high level.



Title: Navuchency

**Product type:** educational courses for universities; scientific achievements of students; website (CLARIN).

Link: <a href="https://ssrlab.by/navucency">https://ssrlab.by/navucency</a>, <a href="https://ssrlab.by/navucency">https://ssrlab

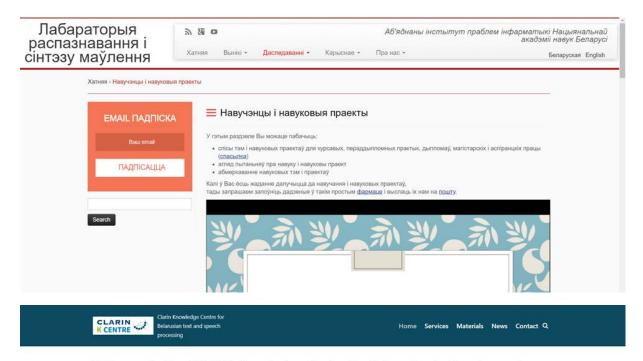
**Languages:** English, Russian.

**Tasks:** Currently, several educational courses are taught for the following universities: BSU, MSLU, BSUIR. As part of the cooperation with the branch of the Department of Computational Linguistics and Linguodidactics within the Faculty of Socio-Cultural Communications at BSU, joint coursework, diplomas, and master's degrees, pre-graduate production practices and work in the framework of scientific research on speech recognition and synthesis have been organized on the basis of the Speech Recognition and Synthesis Laboratory of the UIIP of the National Academy of Sciences of Belarus. Recommendations for improving the speech synthesis system for legal texts have been developed. International cooperation with the international organization CLARIN has been organized.

## Тэарытычныя і практычныя курсы для ВНУ (2020-2022)

- БДУ, факультэт сацыякультурных камунікацый
  - Праблемы штучнага інтэлекту (Гецэвіч Ю.С. к.т.н., дацэнт, Зяноўка Я.С.)
  - Камп'ютэрныя тэхналогіі ў лінгвістыцы (Гецэвіч Ю.С. к.т.н., дацэнт, Зяноўка Я.С.)
  - Аналіз і сінтэз маўлення (Гецэвіч Ю.С. к.т.н., дацэнт, Зяноўка Я.С.)
  - Камп'ютарная лінгвістыка (Варановіч В.В.)
  - Квантытатыўная лінгвістыка (Варановіч В.В.)
  - о Машынны пераклад (Варановіч В.В.)
- МДЛУ
  - Уводзіны у мовазнаўства (М. В. Супрунчук, к. ф. н., дацэнт)
  - Руская мова і культура маўлення (М. В. Супрунчук, к. ф. н., дацэнт)
- БДУІР, фукальтэт інфармацыйных тэхналогій і кіраваньня
  - 。 (В.А. Захар'еў, к.т.н., дацэнт)





# Welcome to the CLARIN Knowledge Centre for Belarusian text and speech processing!

The CLARIN Knowledge Centre for Belarusian text and speech processing (K-BLP) is based at the Speech Synthesis and Recognition Laboratory, the United Institute of Informatics Problems of the National Academy of Sciences of Belarus. Minsk: The CLARIN Knowledge Centre for Belarusian text and speech processing is part of the CLARIN ERIC, which holds the European ESFRI-European Strategy Forum on Research Infrastructures certification as a landmark research infrastructure.

The Centre provides users knowledge for text, speech and other data processing for languages, especially for the Belarusian language. Our main target audience is researchers and enthusiasts in humanities and digital humanities with an interest in different aspects of linguistics and computational processing of language, please visit the <u>Services</u> and the <u>Materials</u> pages.

We offer a wide-ranging user support, guidelines and instructions for each service and material, please visit <u>Contacts</u>.



Title: Audio guide to the object "Botanical Garden"

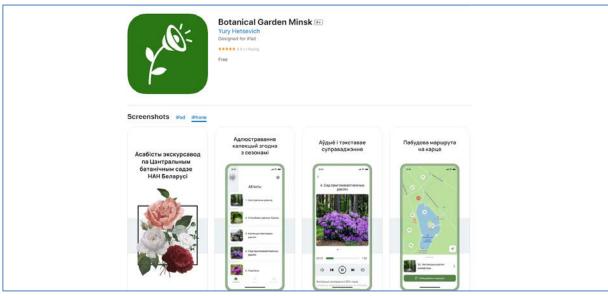
Product type: website, mobile app for iOS and Android

**Link**: https://cbg.krokam.com/

Languages: Belarusian, Russian, English

**Tasks:** design (front-end), software implementation of the Web platform (back-end), content verification, launch on the client's server, support, automatic backup of program code and data, software implementation of a mobile application for iOS, publication in AppStore.





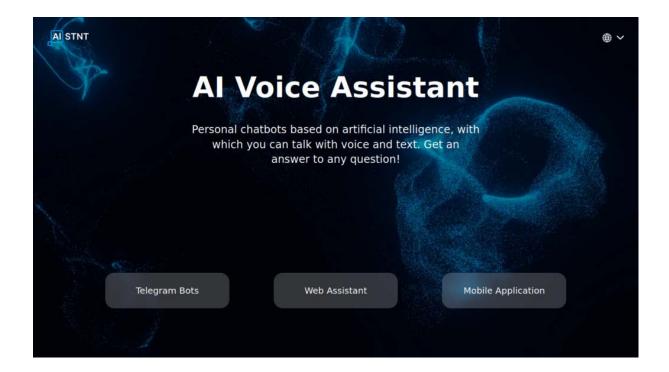
**Title:** AI Voice Assistant

**Product type:** website, mobile app for iOS and Android, telegram bot

Link:

Languages: Belarusian, Russian, English, Chinese

**Tasks:** design (front-end), software implementation of the Web platform (back-end), content verification, launch on the client's server, support, automatic backup of program code and data, software implementation of a mobile application for iOS and Android, publication in AppStore and Google Play, telegram bot realization, speech recognition and synthesis implementation, AI automation for answers.



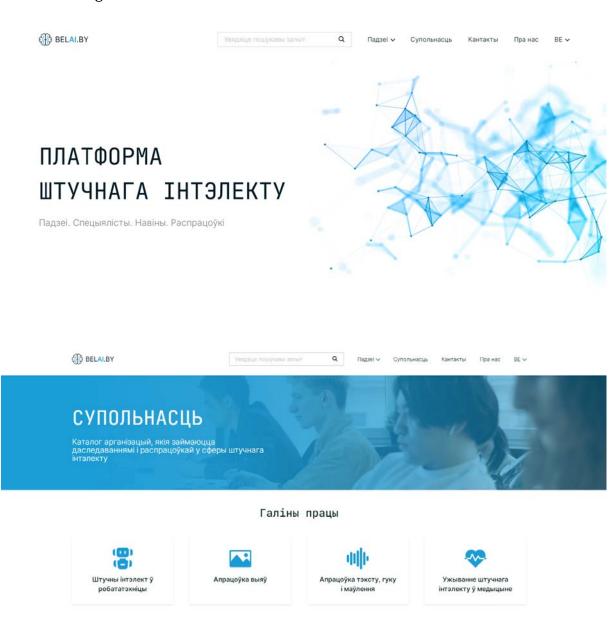
Title: AI-Platform

**Product type:** website **Link**: https://belai.by/

Languages: Belarusian, Russian

**Tasks**: design (front-end), software implementation of the Web platform (back-end), launch on the client's server, support, automatic backup of program code and data,

content management.





Ужыванне штучнага

інтэлекту ў прамысловай сферы

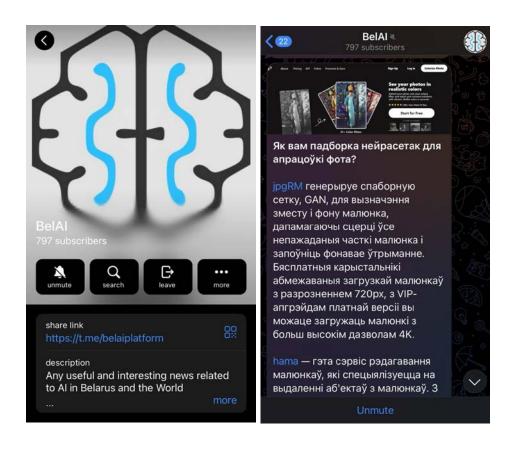
адукацыі

Title: Telegram Channel BelAI-Platform

**Product type:** Telegram-канал **Link**: https://t.me/belaiplatform

Languages: Belarusian

Tasks: content management, news on AI in Belarus and the world

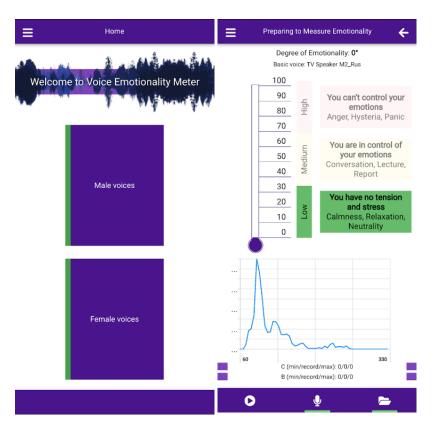


**Title:** Voice Emo Meter – праграмны комплекс для вымярэння ступне эмацыйнасці голасу чалавека

**Product type:** спецыялізаванае праграмнае забеспячэнне для вымярэння ступне эмацыйнасці голсу чалавека, дадатак Desktop, мабільны дадатак для Android **Link**: https://intontrainer.by/#download-vem

Languages: руская, англійская

**Tasks**: software implementation of special software, design (front-end), software implementation (back-end), work on multilingual content, running on the server, permanent support; documentation



#### **Contacts**

Speech Synthesis and Recognition Laboratory, United Institute of Informatics Problems of National Academy of Sciences of Belarus

#### Online

Laboratory web-site (<u>www.ssrlab.by</u>). Web-page on the official site of UIIP NAS Belarus (<u>http://uiip.bas-net.by/structure/l rsr/index.php</u>).

#### **Address**

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