ED2K

A BETTER WAY TO READ THE EARTH

READING THE EARTHDOC ONLINE DATABASE IS NOW AMPLIFIED WITH ED2K

ElasticDocs™ x EarthDoc

iraya

ED2K

iraya

x

eage

EAGE

EUROPEAN
ASSOCIATION OF
GEOSCIENTISTS &
ENGINEERS

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The world of geoscience is here.

For over 70 years, **The European Association of Geoscientists and Engineers (EAGE)** has been responsible for publishing and gathering data on conferences and publications in the field of geoscience. The **EarthDoc** online database contains more than 70,000 scientific publications and technical papers as well as conference proceedings. It has helped countless industry professionals to advance their research and make sound work decisions. Now it is even easier to incorporate into your corporate data store with ED2K.

JOURNALS IN EARTHDOC

→ **First Break**
→ **Near Surface Geophysics**
→ **Geophysical Prospecting**
→ **Petroleum Geoscience**

Amplify your EarthDoc experience.
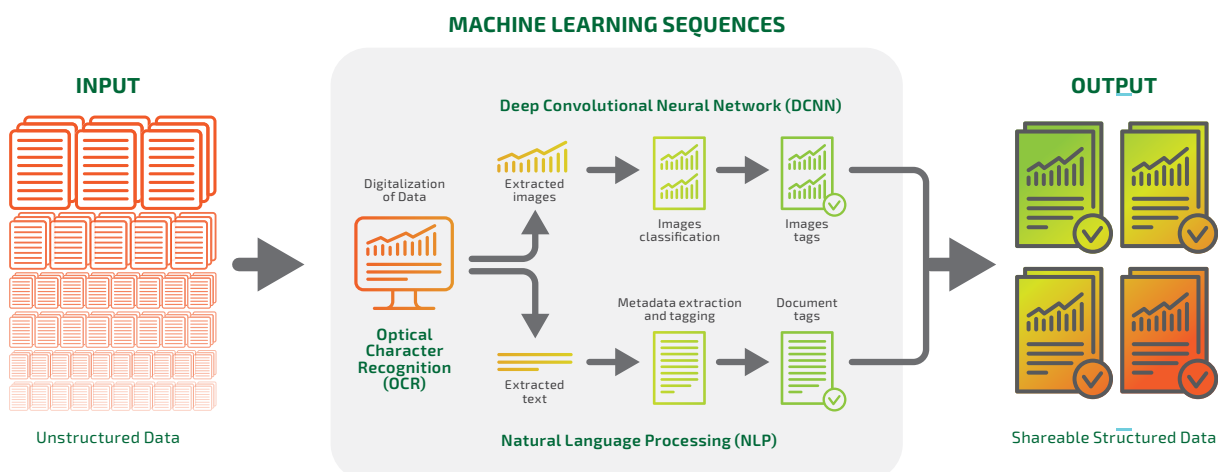
ED2K

ElasticDocs™ + Earth**D**oc **to K**nowledge

ED2K: The data of EarthDoc + the technology of ElasticDocs™ = Knowledge
ED2K is a pioneering and cutting-edge collaboration between EAGE and Iraya Energies. It combines two knowledge powerhouses in the energy and data industry, **EarthDoc** and **ElasticDocs™** .

With **ED2K**, you **amplify** your **EarthDoc** search and maximize your knowledge of the earth. It boosts your navigation of 70,000+ scientific and technical publications so you can query the database, test hypotheses, compare images and locate information.

How does ED2K work? The **EarthDoc** database has been absorbed and processed using **ElasticDocs™** leading edge machine learning and artificial intelligence technologies. All of **EarthDoc**'s 70,000+ articles are geotagged to 800+ geological basins around the world. Natural language processing, auto-image recognition, and recommender systems are fully integrated in the ED2K system. This results in a short amount of time, maximizing reading and analysis of the Earth's data.

MACHINE LEARNING SEQUENCES

INPUT

Unstructured Data

Deep Convolutional Neural Network (DCNN)

Digitalization of Data

Extracted images

Images classification

Images tags

Optical Character Recognition (OCR)

Metadata extraction and tagging

Document tags

Extracted text

Natural Language Processing (NLP)

OUTPUT

Shareable Structured Data

Using a smart pipeline of Optical Character Recognition, Deep Convolutional Neural Networks, Natural Language Processing & Knowledge Graphs algorithms, the machine auto classifies different earth image clues, from the macroscopic to the microscopic, so you, our earth scientists and engineers can lead us to the right energy mix for the future.

ED2K's Bounty in Numbers

Publications	70,114
Content	39 years
Pages	683,114
Images	497,188
Geological Basins	872
Countries	195
Area	510,072,000 sq. km
Earth's Data	In million years

Read more. Discover more. Do more for the earth. Using AI techniques, the main goal of **ED2K** is to liberate the rich geoscience and engineering data contained in EarthDoc so that it can be used to search for knowledge on new, more sustainable energy. Subsurface data from oil and gas explorations can provide answers to pivotal questions on energy sustainability and climate change. When given the chance to read the earth better, geologists, engineers and energy companies tend to make better technical, management and investment decisions that not only benefit their industry but the earth as well.

Our AI technology and IT infrastructure are the best out there. ED2K is served within a native cloud knowledge container using **ElasticDocs™** microservices architecture. **ElasticDocs™** is intelligent and unique, in that it is customized for the ingestion of proprietary corporate data. With the **ED2K** collaboration, EarthDoc's peer reviewed content can be directly connected to proprietary corporate data store. Through the use of smart sequence of AI and ML techniques in **ED2K**, the knowledge unlocked in EarthDoc is further amplified. This can then be used seamlessly to enrich technical workflows within an energy company across the life cycle of its assets: from prospecting, development, end-of-life planning all the way to strategic re-use and recycle of its reservoir assets.

Even with its cutting-edge technology, **ED2K** is easy to use with a personalized account log-in system and multi-language capability. And this is only the beginning. **Iraya Energies** has many more exciting user features planned in the future to amplify the user experience of **ED2K**.

ElasticDocs™ in a Nutshell

ElasticDocs™ is an intuitive knowledge container that is especially capable of integrating proprietary well data, deployment of multiple GIS layers, and published scientific content within one enterprise system. It can be connected to specialized company pods through APIs. The system is adept at liberating surface and subsurface information, particularly related to geology, petrophysics, rock physics, well planning, reservoir characterization and machine learning experimentation. **ED2K** can be deployed with proprietary company data via ElasticDocs, or as a stand-alone.