



EARTH OBSERVATION FOR INNOVATION AND BUSINESS

Downstream Applications Across Sectors

AGH University of Krakow

2-18.03.2026

2-13.03.2026 online

16-18.03.2026 onsite in Krakow



COURSE OBJECTIVE

The course **“Earth Observation for Innovation and Business: Downstream Applications Across Sectors”** is designed to equip professionals from both public and private sectors with practical knowledge and skills in leveraging satellite data to drive innovation, optimize operations, and create new value in their industries.

The course will explore how Earth observation (EO) technologies can support decision-making, improve efficiency, and enable new services in sectors such as agriculture, energy, infrastructure, finance, insurance, climate adaptation, urban planning, and more.

Participants will gain both a theoretical foundation and hands-on experience with EO data, tools, and real-life use cases.



TARGET AUDIENCE

- **Technology professionals** who want to gain future-oriented skills and increase their competitiveness in the job market.
- **IT specialists** and **data analysts** who wish to transition into the space sector.
- **Public sector institutions** and **corporations** seeking to better understand the potential of the space sector and satellite data.
- **Start-ups** and **SMEs operating** in the fields of digital innovation, green technologies, and Industry 4.0, who want to use satellite data in their solutions.
- **Financial, insurance, and ESG reporting organizations** that use satellite data for risk assessment and sustainable development monitoring.
- **Energy, logistics, mobility, agriculture, and environmental services sectors** interested in implementing satellite data-based solutions.
- **Innovation agencies, accelerators, and R&D centers** that support the development of competences in space technologies.

Course Structure and Schedule



Duration: 2 weeks online, 3 days onsite

Participation fee: €2,500 per person (regular)

Early registration (until the end of 2025): €2,000 per person

The price does not include accommodation in Krakow

Number of participants: minimum 12, maximum 20

Certificate of completion: AGH certificate awarded at the official course closing ceremony

Registration: Write an email to mlupa@agh.edu.pl, with the subject '**Course Earth Observation - registration**'.

Michał Lupa, the course supervisor, will also answer any questions related to the course.

COURSE SCHEDULE

WEEK 1

2-6.03.2026

online

5 sessions x 2h

8:00-10:00

Introduction to Earth Observation and Its Applications

2.03.: Basics of remote sensing and Earth observation – Martyna Gatkowska (Institute of Geodesy and Cartography)

3.03.: Overview of EU and global EO programs (Copernicus, commercial constellations) – Kacper Grzesiak (ICEYE)

4.03.: EO for business - introduction to cross-sector use cases and impact – Fiammetta Diani (European Union Agency for the Space Programme)

5.03.: Market landscape - EO data providers, value-added service companies – Muthukumar Kumar, Aleksander Buczkowski (Geoawesome)

6.03.: Barriers to adoption for EO innovation – Michał Lupa (Faculty of Space Technologies, AGH), Łukasz Wilczyński (European Space Foundation)

COURSE SCHEDULE

WEEK 2

9-13.03.2026

online

5 sessions x 2h

8:00-10:00

EO Data in Practice: Ecosystem, Platforms, Integration Models

9.03.: Main institutional actors in the European EO ecosystem –
Stephane Ourevich (ALSO Space)

10.03.: EO data and services (Copernicus services, public and commercial data types) – Yosef Akhtman (Faculty of Space Technologies, AGH/ Gamma Earth)

11.03.: Tools and platforms overview: Copernicus DIAS, Sentinel Hub, EO Browser, APIs – Marcin Niemyjski (CloudFerro)

12.03.: Sector-specific data integration: mobility, energy, agriculture, climate risk – Agnieszka Łukaszczyk (hiALtitude consulting)

13.03.: Discussion and group voting – selection of application areas for Week 3 – Justyna Redelkiewicz (hiALtitude consulting), Michał Lupa (Faculty of Space Technologies, AGH)

COURSE SCHEDULE

WEEK 3

16-18.03.2026

onsite

AGH University of Krakow

Practical Labs and Group Projects on EO Solutions

Daily: 6 hours of workshops (9:00-12:00, 14:00-17:00), including lunch and networking

Participants form thematic groups based on chosen EO use cases (voted on in Week 2), such as:

- Smart agriculture and land monitoring
- Urban heat islands and green infrastructure
- Renewable energy and environmental impact
- Insurance risk modelling or supply chain monitoring

Each group, guided by a mentor, will develop a pilot EO service concept that includes:

- Definition of user needs and value proposition
- Selection and sourcing of suitable data
- Potential business model or partner ecosystem
- Data processing (lab work with real tools/platforms)
- Presentation of a project plan or service concept

MEET THE INSTRUCTORS



**AGNIESZKA
ŁUKASZCZYK**

hiALtitude consulting

Dr **Agnieszka Łukaszczyk** is a founder and CEO of hiALtitude consulting. She is a distinguished leader in the space industry, renowned for her expertise in government affairs, space policy, and international collaboration.



**FIAMMETTA
DIANI**

European Union Agency for the Space Programme

Fiammetta Diani is currently Head of Market Downstream and Innovation at the European Union Agency for the Space Programme (EUSPA) where she is working since 2009. She is responsible for developing the market and innovative applications of space data while fostering competitiveness of space downstream industry, SMEs and start-ups.

Before joining the Agency, she worked in the private sector for more than a decade, both in aerospace and information technology industry, with focus on business development of products, applications and services. Mrs Diani holds a master degree in Aerospace Engineering from Politecnico di Milano and a post-graduate Master in Economics from University of Ferrara, in Italy.



MARTYNA GATKOWSKA

Institute of Geodesy and Cartography

Martyna Gatkowska, PhD is a satellite remote sensing expert with 15 years of experience in the space sector. She served as the European Space Agency's Business Ambassador to Poland and as an EO Expert at the Executive Agency of the Ministry of Agriculture.



YOSEF AKHTMAN

Faculty of Space Technologies, AGH/ Gamma Earth

Yosef Akhtman is an Associate Professor at the Faculty of Space Technologies, AGH University of Krakow, where his research is focused on Artificial Intelligence and Data Engineering pertaining to applications in Earth Observation and Remote Sensing. He is a founder of Gamma Earth, provider of satellite imaging enhancement solutions, MineFree, as well as Gamaya, a Swiss Economic Award-winning Swiss startup in the field of smart farming enabled by hyperspectral imaging, computer vision and AI. Before establishing Gamaya, he carried out international applied research projects in the UK and Switzerland, spanning the subjects of remote sensing, mobile robotics and environmental monitoring. Yosef has a B.Sc. degree in Mathematics and Physics from the Hebrew University of Jerusalem, Israel, and a Ph.D. in Electronics Engineering from the University of Southampton, UK.



MICHAŁ LUPA

Faculty of Space Technologies, AGH

Michał Lupa is the Head of the Remote Sensing Research Group at the Faculty of Space Technology, AGH University of Krakow. He has over 14 years of experience in designing and delivering advanced IT systems based on Earth Observation (EO) data. Throughout his career, he has led projects for key national and international organizations, including Ordnance Survey (UK), the Head Office of Geodesy and Cartography (Poland), the Institute of Meteorology and Water Management – National Research Institute (Poland), the Geospatial Commission (UK), and the UK Research and Innovation Centre. His work focuses on leveraging satellite data, machine learning, and geospatial technologies to develop innovative solutions that support public institutions and industry stakeholders in decision-making and environmental monitoring.



JUSTYNA REDELKIEWICZ

GoCosmic

Justyna Redelkiewicz is the Founder of GoCosmic, providing strategic consulting and angel investments in deep tech and space. Recognized leader in space commercialisation and downstream space applications.



MUTHUKUMAR KUMAR

Geoawesome

Muthukumar Kumar is the co-founder of Geoawesome. As a passionate technology evangelist, he builds strategic partnerships to foster innovation and advocate for the use of geospatial technology to solve critical global challenges.



STÉPHANE OUREVITCH

ALSO Space

Stéphane Ourevitch is one of the two founders of ALSO Space, a Brussels-based consultancy specialised in Earth Observation which employs 22 people. He has 20 years of experience in Copernicus User Uptake and Outreach, and is currently Supervisor and Copernicus Community Manager at the EU Space Support Office under contract of the European Commission. He is also a member of the Board of Directors of EARSC, the European Association of Remote Sensing Companies.



ŁUKASZ WILCZYŃSKI

European Space Foundation

Łukasz Wilczyński is a recognized expert in the space sector in Poland and abroad, as well as a trained space historian and public relations specialist. He serves as the President of the European Space Foundation, which runs major international initiatives such as the European Rover Challenge, the world's largest robotics and space competition, and educational projects on climate change.

He is also the founder and board advisor of Planet Partners, an agency that has been supporting innovative brands in reputation management and strategic communications for over 18 years. In 2022, he was named one of the Top 25 PR Innovators in EMEA by PProvoke Media magazine.

Łukasz is an experienced lecturer and motivational speaker, presenting space-related topics to audiences across various industries. He has authored publications on U.S. space programs and has been a speaker at TEDx, IAC, and United Nations General Assembly events.

Currently, he serves as Chief Executive of the Local Organizing Committee for the International Astronautical Congress 2027 in Poznań.



**MARCIN
NIEMYJSKI**
CloudFerro

Marcin Niemyjski is a trained surveyor with experience in data analysis and interpretation, now developing as an Earth Observation Data Engineer. Focused on GIS, remote sensing, LiDAR, and data processing. Views the spatial data industry as a puzzle combining open datasets, Python, SQL, and Machine Learning. Believes the future of GIS lies in Big Data and cloud computing, a path being pursued while exploring Earth from space at CloudFerro.



**KACPER
GRZESIAK**
ICEYE

Kacper Grzesiak is an entrepreneur, graduate of NYU, ISU, and INSEAD, with 15 years of international operational experience in the technology and venture capital industries in the USA and Europe. He has worked in both B2C and B2B sectors, in areas such as mobile payments, healthcare e-commerce, television, and digital media. He currently serves as Commercial Director at ICEYE's Warsaw office, responsible for B2B and B2G sales.



**AGH UNIVERSITY
OF KRAKOW**

AGH

AGH University of Krakow is one of the leading technical universities in Poland, with a history dating back to 1919. It currently educates around **20,000 students** across **18 faculties**. The university offers a wide range of study programs, including bachelor's, master's, doctoral, and postgraduate courses.

AGH employs around **2,300 academic staff**, including renowned professors and researchers actively involved in national and international scientific projects. The university is known for its cutting-edge research and modern laboratories, supporting innovation and collaboration with industry.

International cooperation is a priority at AGH, which participates in numerous global research networks and educational programs, welcoming students and researchers from around the world. The university's graduates are highly sought after in the job market due to their solid theoretical knowledge combined with practical skills.

Committed to sustainable development and technological advancement, AGH fosters creativity, interdisciplinary learning, and entrepreneurial spirit among its students, preparing them for challenges of the future.



[HTTPS://WWW.AGH.EDU.PL](https://www.agh.edu.pl)

The **Faculty of Space Technologies** at **AGH University of Krakow** is the first faculty in Poland entirely focused on space technologies and engineering. It offers an interdisciplinary master's degree program that equips students with practical and theoretical knowledge in key areas such as satellite systems, aerospace materials, propulsion, remote sensing, space robotics, and biomedical technologies for space applications.

The faculty conducts **advanced research** aligned with the needs of the global space sector, actively collaborating with institutions such as the European Space Agency (ESA), the Polish Space Agency (POLSA), and leading space-tech companies.

Students play an active role in shaping the faculty's ecosystem through various **space-oriented student research groups**. These include teams working on satellites, lunar payload, rovers, AI for space, and more. Participation in international competitions and research projects allows students to gain hands-on experience and connect with the global space community.

With modern laboratories, industry partnerships, and a strong emphasis on innovation and collaboration, the Faculty of Space Technologies prepares students to contribute to the future of space exploration – both in Poland and internationally.



SatLab AGH Student Research Group
Photo: Natalia Deyna, KSAF

Where to find us:



www.spacetechnology.agh.edu.pl



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