8a AI Made Easy: A Beginner's Toolkit for Streamlining Your Projects

You get an understanding of AI, how AI models work and what the most important AI tools are. Image/video generation will not be covered in this beginner's lecture. Please create a ChatGPT account before the lecture.

o Introduction to AI
o Convolutional neural networks (CNNs) and Large language models (LLMs)
o Applications with (mainly) publicly available AI tools

Eawag-Empa:	Wed, 26.03.2025, 09:00 - 12:00, FC-D24
PSI:	Wed, 19.03.2025, 09:00 - 12:00, OSGA/OG10
WSL:	Fri, 21.03.2025, 09:00 - 12:00, EP D1

8b AI in Research & Scientific Writing

You get an overview of the opportunities, downsides, and ethical concerns when using AI tools (text and image generation) in research and scientific writing, as well as current guidelines. Locally deployed AI tools and image generation will be covered in this beginner's lecture. Please create a ChatGPT account before the lecture.

o Current guidelines from most common publishers
o How generative tools work (focussed on image generation)
o Literature search tools
o Applications with publicly available AI tools
o Introduction to locally deployed AI tools for privacy

Eawag-Empa:	Wed, 04.06.2025, 09:00 - 12:00, FC-C24
PSI:	Wed, 21.05.2025, 09:00 - 12:00, OSGA/EG6A
WSL:	Wed, 28.05.2025, 09:00 - 12:00, Flurysaal

Registration

Each venue is open to all members of the four research institutes Eawag, Empa, PSI and WSL. Please register online at www.lib4ri.ch/trainings (closes a week prior to each event).

Course Notes

Presentation slides and supplementary material will be available for download from our trainings website at www.lib4ri.ch/trainings a couple of days prior to the sessions.

ECTS Credit points

On request, students attending at least 4 modules will receive a recommendation for 1 ECTS credit point.

Training on Demand

o We are happy to visit your group or department to discuss individual topics
o Customised training sessions at all locations of the federal research institutes can be arranged
o Contact us for your training on demand

Contact

Lib4RI c/o Eawag, Überlandstrasse 133, CH-8600 Dübendorf | +41 58 765 57 00 | info@lib4ri.ch | www.lib4ri.ch

Lib4RI

Searching & Managing Scientific Information

Training series

Spring 2025

Modules

1 Searching Scientific Information
2 Scientific Publishing – From Writing to Sharing
3 Open Access & Copyright
4a Literature Management with EndNote
4b Literature Management with Zotero
5 Getting Started with LaTeX
6 Work on Your Own Project
7a Research Data Management – The Basics
7b Make Your Life Easier with Git
8a AI Made Easy: A Beginner's Toolkit for Streamlining Your Projects
8b AI in Research & Scientific Writing

Course sites

Eawag:	Dübendorf
Empa:	Dübendorf
PSI:	Villigen
WSL:	Birmensdorf

Online registration

www.lib4ri.ch/trainings

1 Searching Scientific Information

You become skilled in finding relevant scientific information using suitable tools offered by Lib4RI.

- o How to use Lib4RI's resources for quick information retrieval
- o Formulating systematic search queries including Boolean operators, wildcards and truncations
- o Examples/exercises from the swisscovery library catalogue, Scopus and Web of Science

Eawag-Empa: Thu, 12.06.2025, 09:00 - 12:00, FC-D24
PSI: Fri, 23.05.2025, 09:00 - 12:00, OSGA/EG6A

2 Scientific Publishing – From Writing to Sharing

You will be guided through the scientific publication process from start to finish.

- o The paper submission journey: From draft to publication
- o Writing a paper: Structure and content
- o Getting published: Find your journal and share your knowledge
- o Your research profile, impact and visibility

Eawag-Empa: Thu, 15.05.2025, 09:00 - 12:00, FC-D24
PSI: Thu, 08.05.2025, 09:00 - 12:00, OSGA/OG10
WSL: Tue, 15.04.2025, 09:00 - 12:00, Flurysaal

3 Open Access & Copyright

You gain knowledge on the principles of Open Access (OA) publishing and learn how to deal with copyright questions related to scientific works.

- o Apply OA to your publications and gain more impact for your research
- o Funding opportunities for OA publications
- o How to make your publications OA in the repository DORA
- o Principles of copyright and their applications in science
- o Creative Commons (CC) licences and how to use them
- o Copyright transfer agreements and author rights

Eawag-Empa: Thu, 15.05.2025, 13:00 - 16:00, FC-D24
PSI: Thu, 08.05.2025, 13:00 - 16:00, OSGA/OG10

4a Literature Management with Endnote

You get introduced to scientific literature management with EndNote.

- o How to import and organise literature including fulltext PDFs
- o Citing references and creating bibliographies in your scientific document using EndNote's MS Word plugin Cite-While-You-Write
- o How to modify output styles using Endnote's style editor

Eawag-Empa: Tue, 13.05.2025, 09:00 - 12:30, FC-B15

4b Literature Management with Zotero

You get introduced to scientific literature management with Zotero.

- o How to import and organise literature including fulltext PDFs
- o Citing references and creating bibliographies on the fly in your preferred text editor

Eawag-Empa: Tue, 29.04.2025, 09:00 - 12:00, FC-D24
PSI: Wed, 23.04.2025, 09:00 - 12:00, OSGA/EG6A

5 Getting Started with LaTeX

You are guided in creating your first LaTeX document, with special attention to scientific writing oriented features. The course is for LaTeX beginners.

- o A not so short summary of LaTeX basics
- o Tables, figures and formulae
- o The LaTeX error log and common errors to avoid
- o BibTeX and citation styles

Eawag-Empa: Thu, 10.04.2025, 09:00 - 16:00, FC-D24
PSI: Wed, 02.04.2025, 09:00 - 16:00, OSGA/EG6A

6 Work on Your Own Project

You work on your own literature project and receive individual assistance.

- o Develop your search strategy and set up your systematic topic search with bibliographic databases such as Scopus and Web of Science
- o Critically evaluate your search results
- o Tweak your reference management and citation tools (particularly Endnote)

Eawag-Empa: Thu, 19.06.2025, 09:00 - 12:00, FC-D24
PSI: Fri, 06.06.2025, 09:00 - 12:00, OSGA/EG6A

7a Research Data Management – The Basics

You learn essential strategies for managing research data and code.

- o Apply the Research Data Management Life Cycle and FAIR principles
- o Document and publish data using metadata, READMEs, and repositories
- o Develop Data Management Plans and use institutional data infrastructures

Eawag-Empa: Mon, 07.04.2025, 09:00 - 12:00, FC-D24
PSI: Tue, 25.03.2025, 09:00 - 12:00, OSGA/OG09
WSL: Tue, 01.04.2025, 09:00 - 12:00, Flurysaal

7b Make Your Life Easier with Git

You will be introduced to the concept of version control and learn how to implement it using Git, the de facto standard software for version control.

- o Version control: what it is and why it will make your life easier
- o Git, the most widely used version control software
- o Tracking changes
- o Pulling and pushing changes to a remote repository
- o Concurrent changes with branches
- o Merging branches

Eawag-Empa: Fri, 09.05.2025, 09:00 - 12:00, FC-D24
PSI: Tue, 15.04.2025, 09:00 - 12:00, OSGA/EG6A