



Date: Ascension weekend 2025, 29 May - 1 June 2025

**Location: University of Cologne, on the campus of the University Hospital,
Student House, Josef-Stelzmann-Str. 9a - 50931 Cologne**

Patron: Mrs. Henriette Reker, Lord Mayor of the City of Cologne

Organised by: WG Graduated Migrant and Refugee Women (AKAD FM-FM)

The four-day conference of Women in Science and Engineering, held since 1977, serves as a forum for discussion of technical issues or the respective political themes, as well as for the exchange of experiences. In addition to the events (lectures, workshops and excursions), the Ascension weekend offers numerous opportunities to get to know each other and enjoy culture.

The **focus of the 51st FINUT Conference, FINUT 2025**, is as follows

Artificial Intelligence

Basics, Current Status, Gender Aspects, Visions and Future Trends

We propose the following key topics for this conference.

- Fundamentals of Artificial Intelligence
- Current status and technological advances
- Benefits and risks of using AI
- Gender aspects of artificial intelligence, current and desired state
- Measures and actions for a more inclusive and equitable development of AI
- Visions and future trends of artificial intelligence

We welcome suggestions on the following topics:

- Presentations on the above-mentioned topics
- Suggestions for practical sessions
- Suggestions for panel discussions
- But also suggestions on topics, that are not directly related to the main topic.

Attached you will find a description of our main topic and the above-mentioned suggestions.

The organizing team of the 51st FINUT Conference, FINUT 2025, cordially invites professionals and experts to explore the above mentioned topics and actively participate in shaping the FINUT Conference 2025. We look forward to receiving papers and presentations on the main topic, but also, as in previous years, contributions, that are not directly related to the main topic.

Please submit the brief announcement of your event to orga@finut.net by April 1, 2025.

The Working Group "Graduated Migrant and Refugee Women (AKAD FM-FM)" has taken over the organization of the 51st FINUT Conference, FINUT 2025, in Cologne.

For further questions, please contact us at orga@finut.net or Dr. Afsar Sattari at +49-(0)178-6357200.

FINUT 2025 Organizing Team
Cologne, October 2024

Artificial Intelligence

Basics, current status, gender aspects, visions and future trends

Artificial Intelligence (AI) technologies have the potential to improve people's lives in many ways, making them more efficient and opening up new opportunities, leading to the current term "cognitive industrial revolution". Examples of applications include:

- Healthcare, with diagnostic support and personalised medicine;
- Education, such as personalised learning programmes;
- Business and finance, such as algorithms for trading and risk assessment;
- Transportation; automotive, with autonomous driving;
- Smart cities, with transport systems and urban management;
- Environmental protection;
- Customer service and support;
- Productivity and automation of routine tasks;
- Security and surveillance; Military;
- Entertainment, such as the use of AI in films, games and music;
- Support for the elderly;
- etc.

On the other hand, there are potential risks and dangers of AI that need to be considered. By being aware and acting responsibly, the benefits of AI can be maximised and the risks and dangers minimised. Factors such as regulation and governance, transparency and accountability, education and training, international cooperation, and research and development can help minimising the risks.

Furthermore, and most importantly, gender issues play an important role in the development and use of AI, which should be given special consideration, and measures to improve gender equality in AI should be explored. These measures can/should contribute to a more inclusive and equitable development of AI, reduce gender bias and maximise the benefits of AI technology for all.

Finally, the conference will look at future visions of AI. How can AI contribute to technological progress for people of different ages, genders and ethnic backgrounds in everyday life and at work? What are their innovation projects? How can gender impacts and ethical considerations be taken into account in the development and implementation of AI technologies in order to promote diversity and inclusion and prevent discrimination and injustice of any kind?

We propose the following key themes for this conference.

- Fundamentals of artificial intelligence, such as algorithms and models, machine learning and deep learning, neural networks, etc.
- Current status and technological advances, such as AI hardware such as GPUs, TPUs and special AI chips, cloud-based AI services, open-source AI platforms, or AI in education and industry, etc.
- Benefits and risks of using AI, such as job losses, ethics and responsibility, dependency, security, privacy, social impacts, technical risks, etc., as well as measures to maximize benefits and minimize risks

- Gender aspects of artificial intelligence, current and desired state, such as examining:
 - Bias and discrimination (data bias, algorithmic bias)
 - Representation and diversity (lack of diversity in development)
 - Inclusion of different perspectives
 - Professional opportunities and risks in the labour market
 - Language and interaction systems (gender stereotypes, personalisation and respect)
 - Ethics and governance (gender impact or regulations and guidelines) etc.
- Actions for more inclusive and equitable AI development, such as:
 - Training and awareness raising
 - Workforce diversity
 - Fair data practices
 - Regular review
 - Regulations and guidelines
- Visions and future trends of artificial intelligence, technological advances in everyday life and industry, such as: AI and quantum computing, human-computer interaction and augmented intelligence, generalised artificial intelligence (AGI) and superintelligence, or future innovation projects.

We welcome proposals for:

- Presentations on the above topics
- Proposals for practical sessions from startup founders, university professors and industry representatives on practical implementation examples, scaling AI solutions in enterprises, best practices for integrating AI, or real-world case studies
- Proposals for panel discussions on interdisciplinary research; ethical issues in technology development, social responsibility of scientists and engineers, privacy and security, regulatory frameworks and laws, or success stories and best practices
- As in previous years, contributions not directly related to the main theme are also welcome.

FINUT 2025 Organising Team
Cologne, October 2024