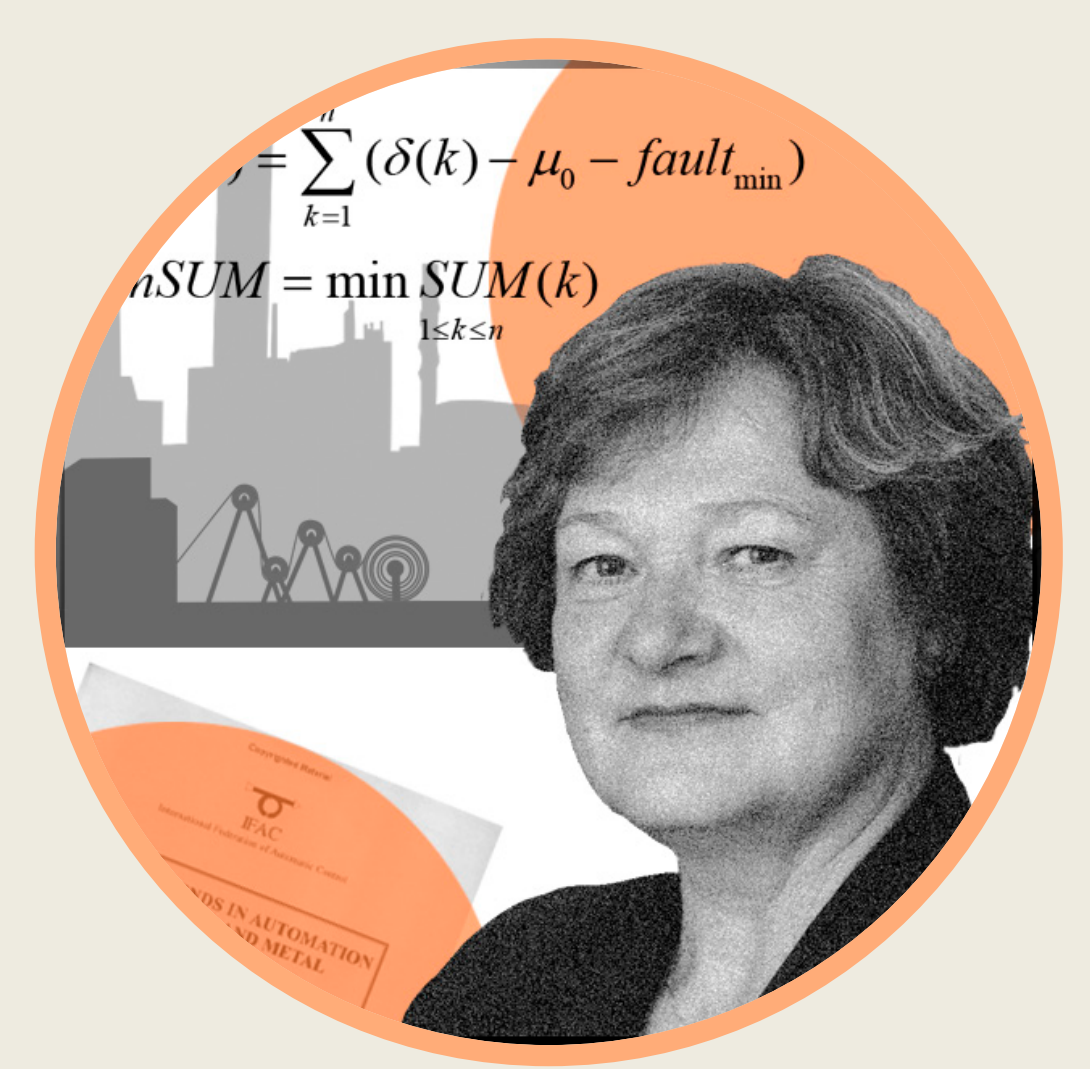
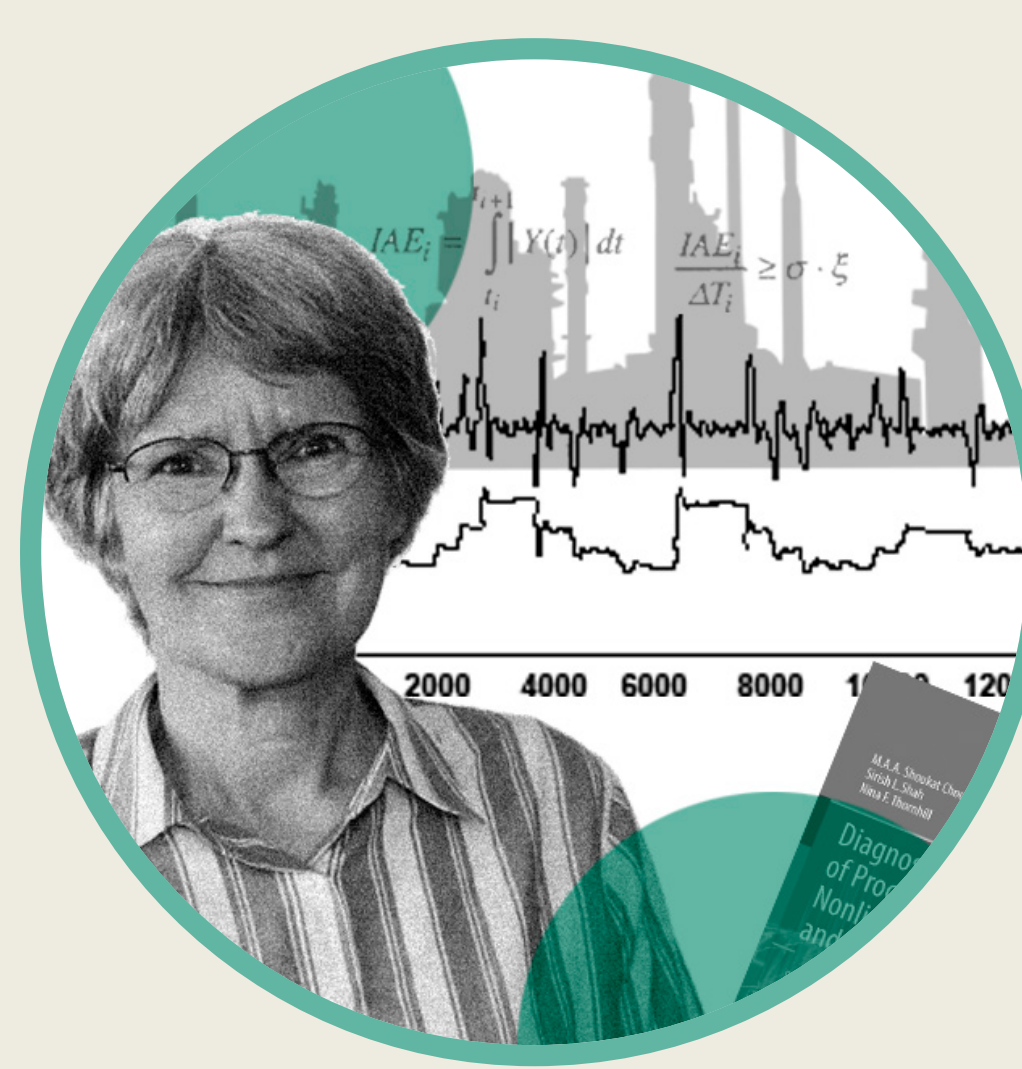
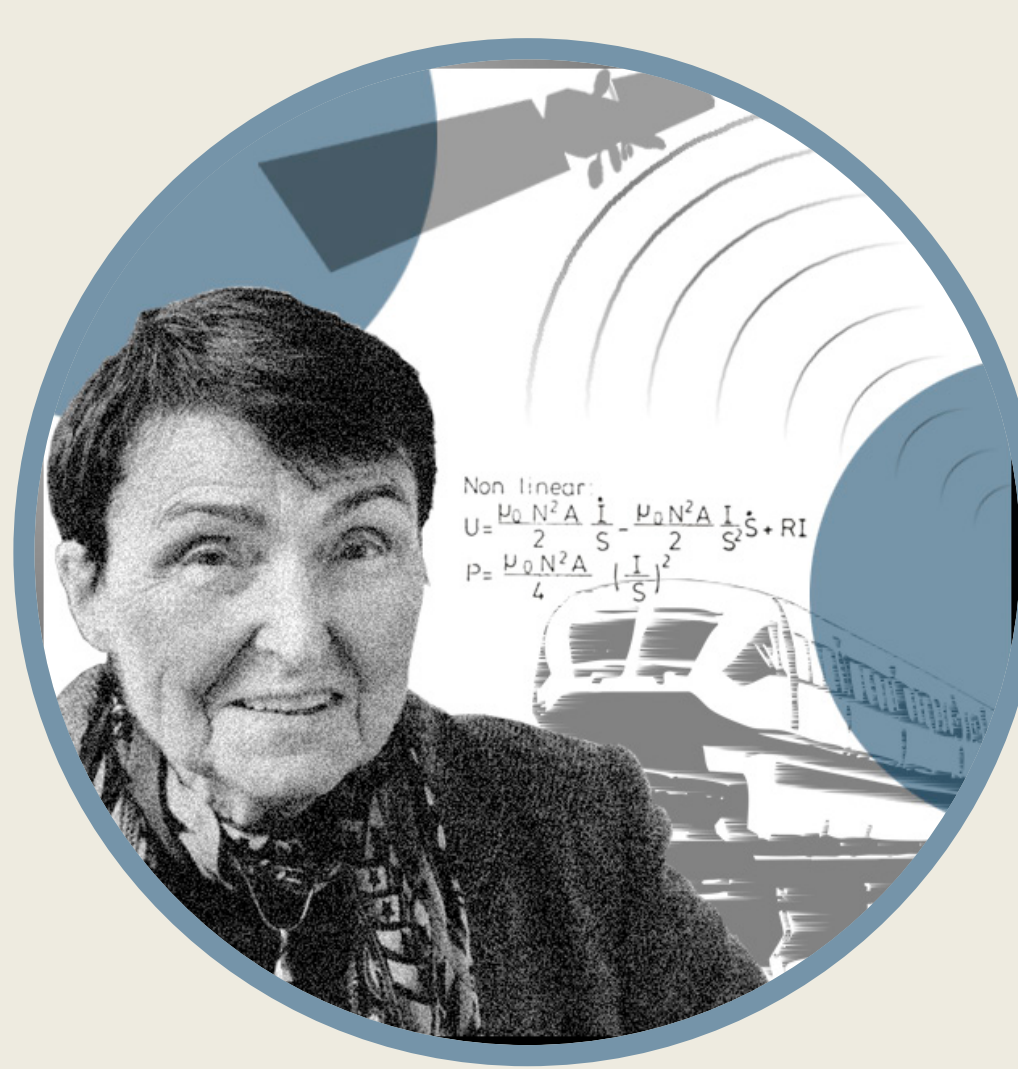




Historical Female Influencers in Automatic Control



You see here a series of portraits of women who worked in control engineering over many decades and have left their mark. The purpose of the series is to document the role and importance of these women in our field. Even further, the portraits introduce role models to today's students.

We, colleagues at the Department of Automatic Control at Lund University, believe that putting these women in the spotlight will encourage more women to work in control engineering.

Everyone in the field of control will benefit from a more gender equal environment. The control community will only reach its full potential when everyone has equal opportunity, independent of their differences such as gender.

Irmgard Flügge-Lotz, Nina Thornhill, Sirkka-Liisa Jämsä-Jounela, Eveline Gottzein and Bozenna Pasik-Duncan are the initial selection of emeritae control pioneers in this ongoing project. The portraits are available as an online repository and include a slide deck, extended text and high-resolution images.

We encourage you to use the material in lectures, talks and other outreach activities to inspire young and future control professionals. This project is supported by the Activity Fund of the International Federation of Automatic Control (IFAC).

Read more:



FEMALE PIONEERS IN AUTOMATIC CONTROL

Bozenna Pasik-Duncan



“Mathematics is a foundation for all sciences because mathematics is about thinking – logical and critical thinking. If you choose only one course at the university, choose mathematical statistics because we deal now with data, randomness, and uncertainty.”

Bozenna Pasik-Duncan

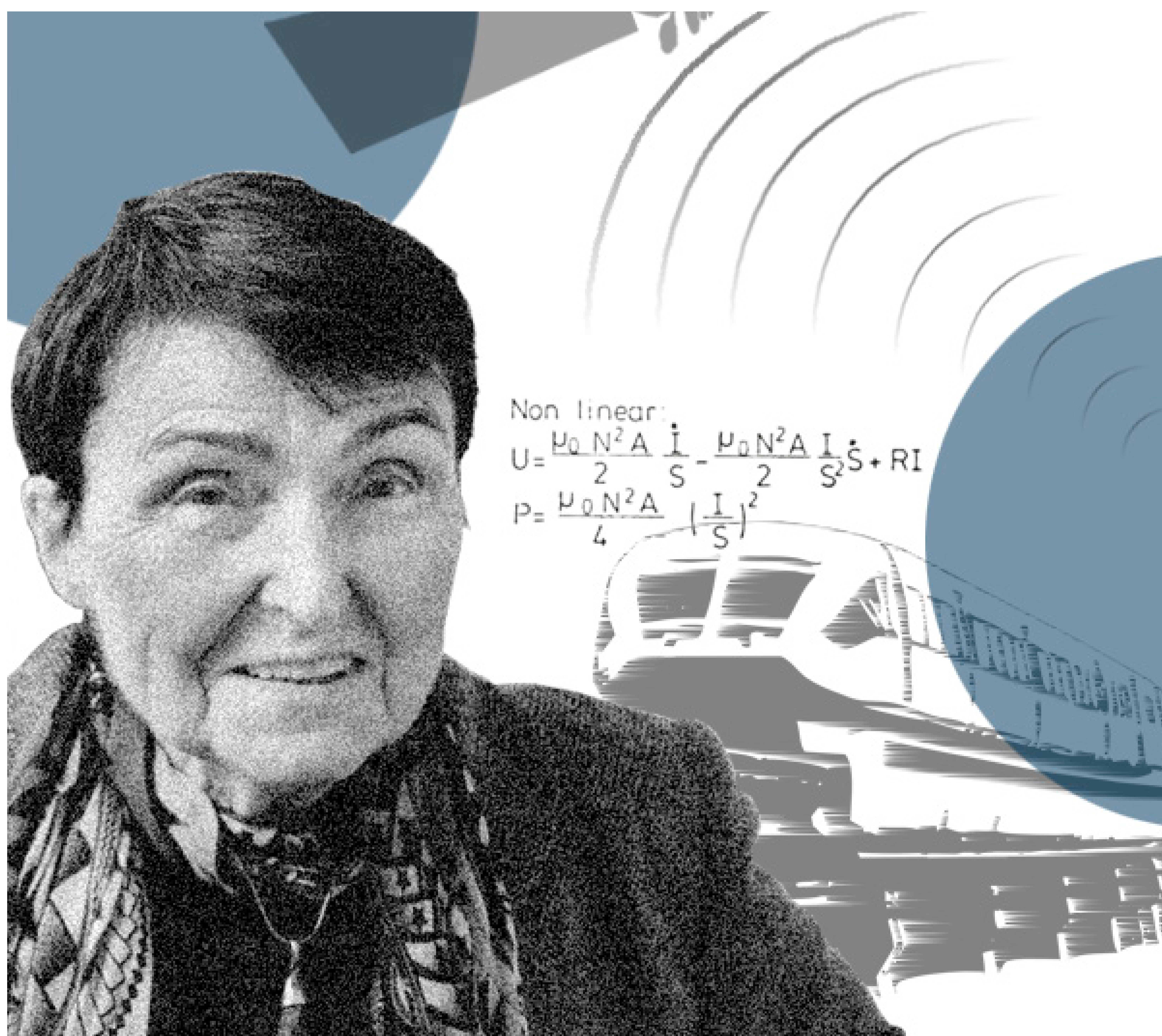
Bozenna Pasik-Duncan (b. 1947) is a Polish mathematician who is an expert in stochastic adaptive control, using probability and the theory of randomness to predict outcomes. She is passionate about promoting women in science and has won several prestigious awards for her efforts as a teacher.

Read more:



FEMALE PIONEERS IN AUTOMATIC CONTROL

Eveline Gottzein



“I was fascinated by the opportunities and determined to use them to the greatest possible extent.”

Eveline Gottzein

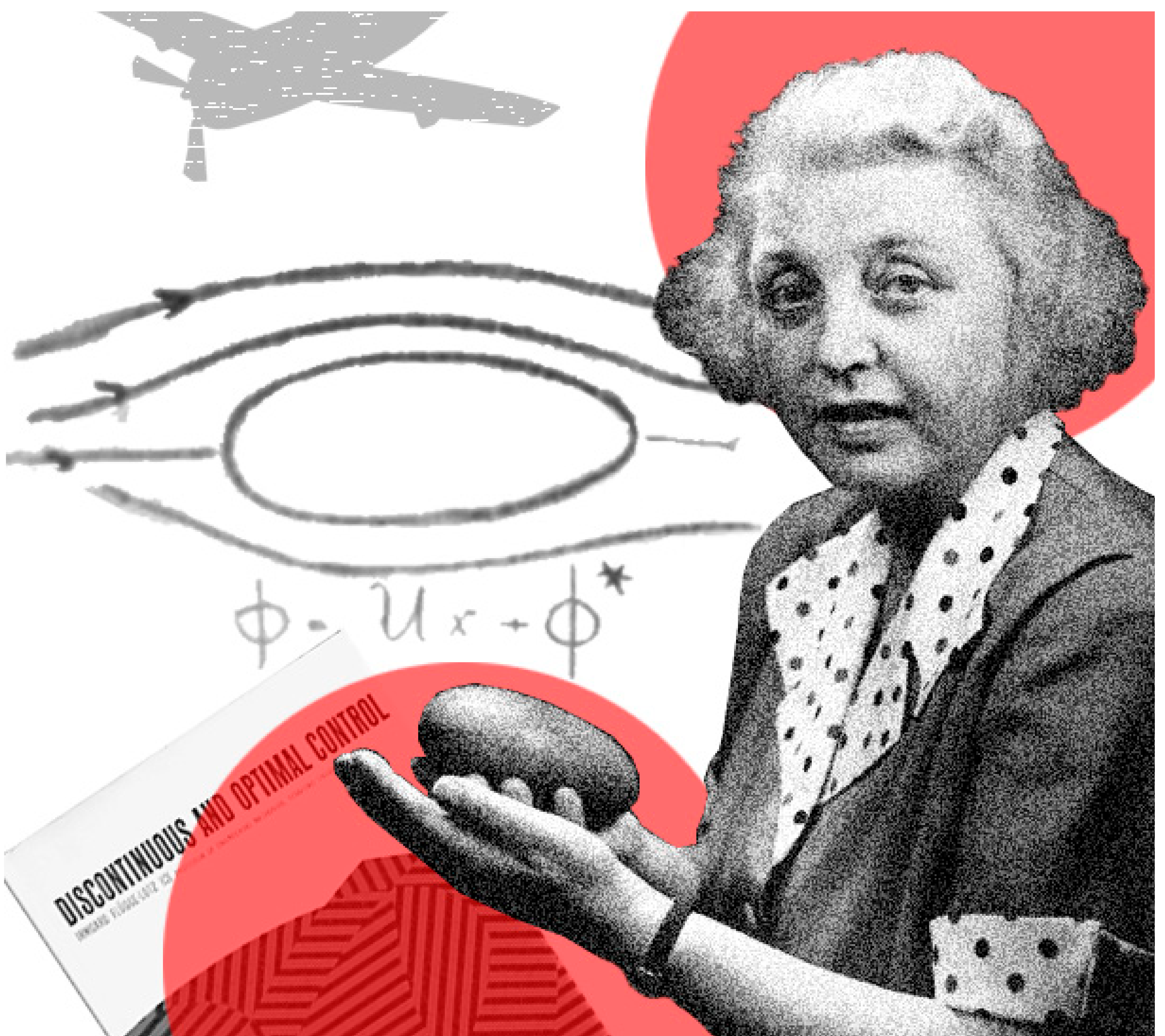
Eveline Gottzein (b. 1931) is a German mathematician and aerospace engineer who is a specialist in the altitude and orbital control of satellites and control systems for the guidance of high-speed magnetic levitation trains. She is the first, and so far only, woman to have received the Werner von Siemens ring, one of the highest awards for technical sciences in Germany.

Read more:



FEMALE PIONEERS IN AUTOMATIC CONTROL

Irmgard Flügge-Lotz



“I wanted a life which would never be boring. That meant a life in which always new things would occur. I wanted a career in which I would always be happy, even if I were to remain unmarried.”

Irmgard Flugge-Lotz

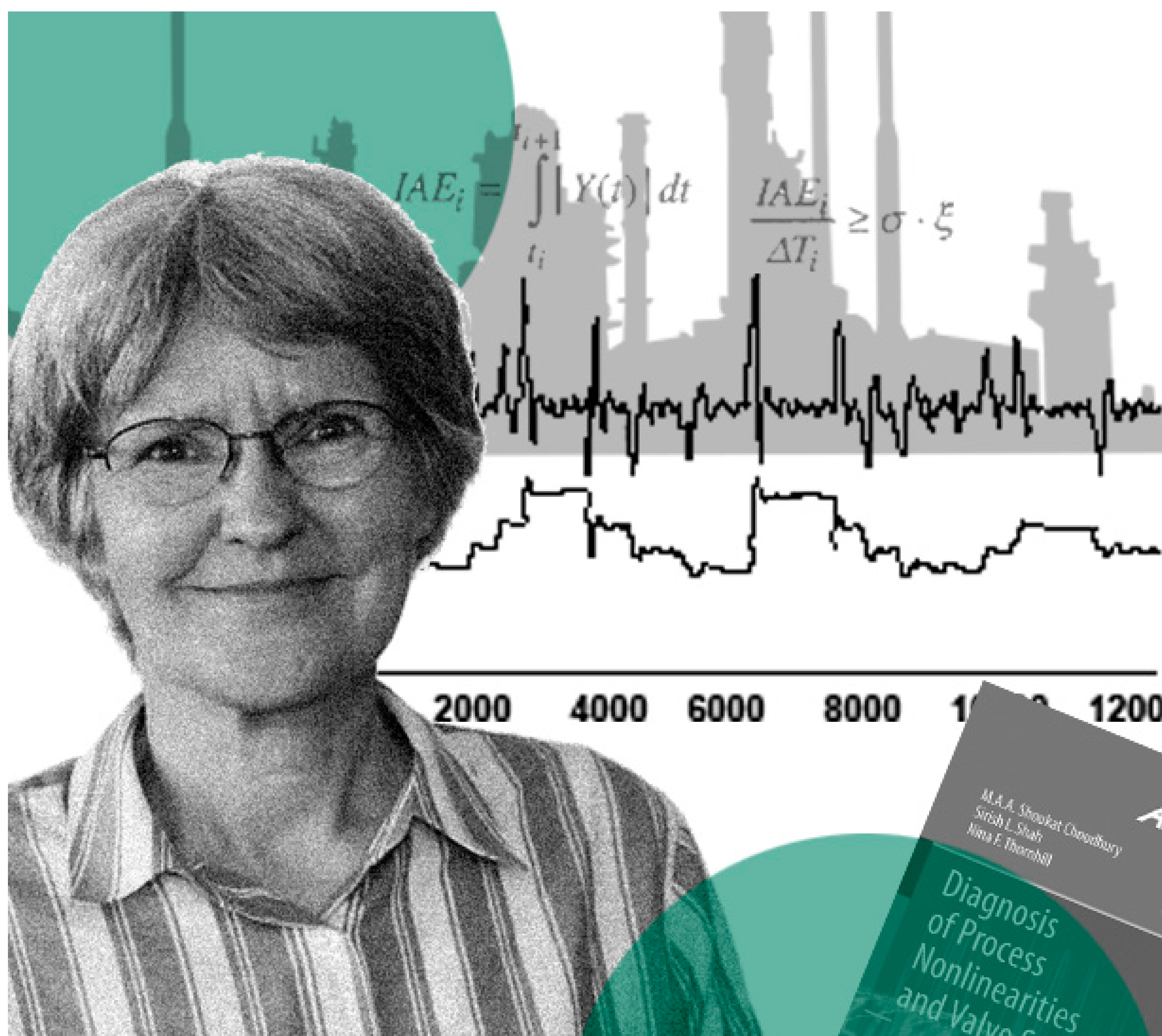
Irmgard Flügge-Lotz (1903–1974) was a German mathematician and pioneer in aviation theory and the theory of discontinuous automatic control. She is particularly known for her advancements in the spanwise lift distribution of an airplane wing, known as the Lotz method, and the development of the on-off control.

Read more:



FEMALE PIONEERS IN AUTOMATIC CONTROL

Nina Thornhill



“You can find anything you want in data, but whether it is meaningful requires one to understand the processes behind the analysed systems.”

Nina Thornhill

Nina Thornhill (b. 1953) is a British physicist and control engineer. She is mainly known for her innovative approaches and tools for process monitoring and the detection and diagnosis of persistent faults in large-scale industrial systems, such as chemical plants. Her practical and effective methods have reduced the use of raw materials and energy, increasing the efficiency of the production facilities and making them significantly more sustainable.

Read more:

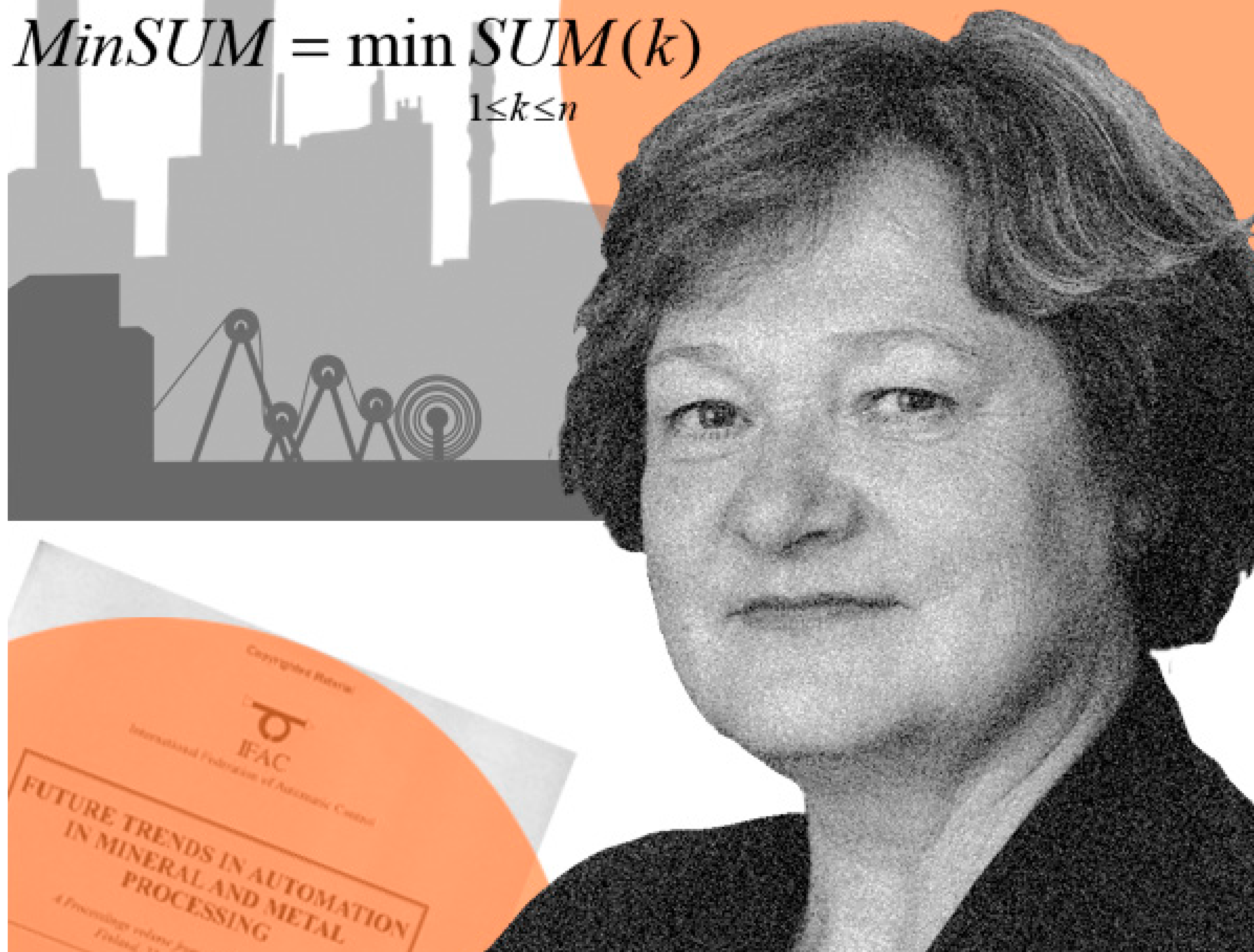


FEMALE PIONEERS IN AUTOMATIC CONTROL

Sirkka-Liisa Jamsa-Jounela

$$SUM(n) = \sum_{k=1} (\delta(k) - \mu_0 - fault_{\min})$$

$$MinSUM = \min_{1 \leq k \leq n} SUM(k)$$



“If you are interested in and love your work, you will be successful.”

Sirkka-Liisa Jämsä-Jounela

Sirkka-Liisa Jämsä-Jounela (b. 1952) is a Finnish engineer and a specialist in process automation. She has done comprehensive work in developing new and efficient process control and management theories, increasing the sustainability of production processes. Being a prominent figure in the International Federation of Automatic Control (IFAC), she has encouraged many young women engineers to proceed within the field of engineering. She has also contributed extensively to the Scandinavian engineering education and control communities.

Read more:

