Chip Hub EU | at AGH University of Krakow

REGISTRATION OPEN

FIRST CHIP HUB TRAINING

Basic Analog IC Design

A practical introduction to the analog IC design flow — from MOS devices and simulation to layout and verification.

DATES
3–4 December 2026

LOCATION
AGH University of Krakow

DURATION	FORMAT	LANGUAGE	FEE
16 hours 08:00–17:30	On-site lectures + hands-on labs	English Max. 15 participants	€200

> **Analog design is engineering, intuition, experience, and the art of compromise — just like life. Learn to feel the circuit.**

Prof. Paweł Gryboś · Training lead

with instructors of the AGH Micro IC Design Team

Only 15 places. Apply now.

Company representatives receive priority.
Individual applicants are welcome.

REGISTER →
forms.gle/tSfDaJ6kzmMrmgUx6

LEARN BY DOING · 10 OF 16 HOURS IN THE LAB

DEVICE — SIMULATION — ANALYSIS — LAYOUT — **VERIFICATION**

Each 2-hour block pairs ≈ 45 min of lecture with ≈ 75 min of laboratory work on Linux workstations with professional EDA tools — simulation (DC, AC, TRAN), layout, DRC and LVS. The course focuses on the practical design flow, not on analog circuit design theory.

WHAT YOU WILL LEARN

01 **CMOS technologies** — technologies and components available in CMOS processes.

02 **MOS devices** — modelling, sizing and short-channel effects.

03 **Schematic simulation** — exemplary analog circuit blocks.

04 **Frequency response & noise** — behaviour in the frequency domain.

05 **Process variations** — their effect on circuit performance.

06 **IC layout** — from schematic to physical implementation.

07 **Layout verification** — DRC, LVS and interpreting results.

TWO-DAY PROGRAMME

DAY 1 · 3 DECEMBER

Technology, MOS devices & schematic simulation

Microelectronic technologies, MOS modelling and sizing, exemplary analog blocks, frequency response, noise and process variation.

DAY 2 · 4 DECEMBER

Layout physical implementation

IC layout design, layout verification (DRC, LVS), effects of process variations and a review of the full analog IC design flow.

DAILY · 08:00–17:30

Four 2-hour blocks, two coffee breaks and a lunch break.

WHO SHOULD ATTEND

- Electronics & semiconductor engineers
- R&D engineers & researchers
- Technical staff of startups & SMEs
- Engineers entering professional analog IC design

YOU SHOULD HAVE

- A basic understanding of electrical circuits
- Familiarity with UNIX/Linux (recommended)

Circuit design theory is not covered.

Register for the training

APPLY →
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Questions: chiphub@agh.edu.pl. Registration does not automatically confirm participation. Applications are subject to the EuroCDP eligibility verification process. Selected applicants receive a separate confirmation and payment instructions.

Recommended book: B. Razavi, *Design of Analog Integrated Circuits*, 2nd ed., McGraw-Hill.

CO-FINANCED BY EuroCDP