



2027 · SEVILLE · 14-17 JUNE

OPEN-SOURCE DESIGN CHALLENGE

*A better design,
made with open-source tools
on an open PDK.*

COMPETE for the **\$1,000 AWARD**

For the first time, SMACD 2027 holds an **Open-Source Design Challenge**, open to **everyone**: students, researchers, independents and companies.

what we will do with your entry

\$ git clone <https://.../your-entry> && cd your-entry

\$ less README.md

✓ open PDK ✓ open tools ✓ GDS ✓ DRC/LVS clean

\$ make reproduce # optional, and it earns you points

\$1,000

GRAND PRIZE

to a single winner, at SMACD 2027

01 SUBMIT

A 4-page SMACD paper and a public repository.

02 WE CHECK IT

Our team re-runs whatever you made reproducible.

03 YOU PRESENT IT

Paper, then the judges' questions. No live demo.

04 WIN

\$1,000 and your design named the Challenge's best.

HOW TO ENTER

Submit a paper (standard SMACD 2027 guidelines) and a **public repository** showing what you did, with open-source tools on an open PDK. It **must** contain a README.md with the design, tools, PDK (and commit) and claimed results, plus clean DRC and LVS reports. Add whatever demonstrates your work: schematics or RTL, netlists, GDS, verification reports, a command or CI workflow that reproduces your results, an optional container.

No public repository, no win. GDS plus clean DRC/LVS reports is enough to enter; the more others can reproduce, the better you score.

TOPICS OF INTEREST

Analog, RF, digital and mixed-signal designs within the scope of SMACD 2027. Generators are welcome as a means: we judge the design(s) they produce; a generator as such belongs in the EDA Competition.

HOW WE JUDGE

A Judging Committee selects a **single winner**. **Step 1:** our team checks your repository and re-runs what you made reproducible (facts, not scores); check it from a clean clone before you submit. **Step 2:** you present the paper and answer the judges' questions. Criteria:

- **Design achievement** — is the circuit good?
- **Reproducibility** — how much of your result can others re-run?
- **Open Defence** — do you know your own flow?
- **Tool use and openness** — open end to end, upstream fixes.
- **Documentation and community value** — could a stranger reuse it?

WHICH SMACD COMPETITION?

OPEN-SOURCE DESIGN CHALLENGE (this one)

A **better design**: a real circuit made with open-source tools on an open PDK.

EDA COMPETITION

A **better designer**: a new tool, method or flow that improves how circuits are designed.

THE RULES

- **Open tools only**, schematic or RTL to a DRC- and LVS-clean GDS; proprietary tools only to cross-check, declared.
- **Open PDK only**: any open-source PDK (IHP SG13G2, Sky130, GF180MCU...).
- **Publish it**: Apache-2.0 or CERN-OHL sources, CC-BY-4.0 docs.
- **Accepted entries** are presented in a special session and published in the proceedings.
- **Reproduced entries** earn the SMACD Reproducibility Seal.

CHALLENGE CO-CHAIRS

Rafael Castro-López, *IMSE-CNM, ES*
Marko Kosunen, *Aalto University, FI*

IMPORTANT DATES

Paper & repository	Feb. 19, 2027
Notification	April 9, 2027
Camera ready	April 30, 2027
Early registration	April 30, 2027

ORGANIZED BY



Instituto de Microelectrónica de Sevilla



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