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"Dynamic aging compensation - the next key enabler of automotive products"

The automotive products, driven by ADAS needs, are now moving to very advanced CMOS nodes. This trend is helping a lot from soft errors perspective with a reduced architectural cost to achieve required FIT rate. But, on another hand, this trend is also generating enhanced risk with respect to end-of-life electrical wearout. Though such mechanisms can be managed statically with larger design margins, this is now often not possible in a context where leakage must also be reduced to support even higher junction temperatures. New solutions as dynamic aging compensation have been considered for the last decade as a research topic. But some groups are now moving towards an industrial usage of such dynamic aging compensation. This tutorial will guide you through the different research findings over the last decade and will give you clues on the most advanced solutions that will come in the next generation of automotive products.

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