

## The High-Performance Real-Time Lab



The High-Performance Real-Time Laboratory (HiPeRT Lab) is a research group belonging to the University of Modena specialized in the development of algorithmic and software solutions for high-performance real-time systems, with relation to next-generation multi-/many-core architectures. HiPeRT Lab's mission is to predictably exploit the tremendous performance/power potential offered by parallel computing platforms in application domains where timing constraints are crucial. To achieve this goal, the group acquired a strong experience in all the aspects of the technological software stack: from low-level communication/synchronization support for parallel applications, to scheduling algorithms and schedulability analysis; from Real-Time Operating Systems (RTOS) to efficient compilers and predictable runtimes.

The group has been involved in several regional and industrial projects, such as OPEN-NEXT<sup>1</sup>, and has multiple on-going collaborations with key companies in industrial domains where real-time requirements are crucial. We strongly believe in the technology transfer between academia and industry, fostering and promoting new collaborations for improving and devising the real-time systems of the future.

### Contact

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<sup>1</sup> OPEN-NEXT - "*Strutture software real-time e open-source per piattaforme embedded industriali di prossima generazione*" - PG/2015/737416 – CUP E32I16000040007. Co-funded by ERDF - European Regione Development Fund 2014/2020