# Dynamic Communications Mapping in NoC-Based Heterogeneous MPSoCs

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**Abstract :** In this paper, we propose heuristic for dynamic communications mapping that considers the placement of communications in order to optimize the overall performance. The mapping technique uses a newly proposed Algorithm to place communications between the tasks. The placement we propose of the communications leads to a better optimization of several performance metrics (time and energy consumption). Experimental results show that the proposed mapping approach provides significant performance improvements when compared to those using static routing.

**Keywords :** Multi-Processor Systems-on-Chip (MPSoCs), Network-on-Chip (NoC), heterogeneous architectures, dynamic mapping heuristics