Advantages:

1. Execution time can be minimized significantly provided there is no constraint on cost.
2. Each performance critical blocks can be identified and customized hardware blocks and sub-routines can be generated to improve the system performance.
3. Hardware-software partitioning can also be defined based on this cost function as cost minimisation subject to to satisfy execution time constraint.

Limitations:

1. This cost function doesn’t involve very critical constraints like power, area, memory etc.,
2. This cost function Doesn’t consider the cost of hardware circuits while improving the performance which is a constraint.
3. In the worst case the number of subsets that must be analysed to improve performance using this cost function increases exponentially.

Complex Cost function:

The cost function used in dobolis paper is more complex compared this cost function because it considers, communication intensity along with the execution time as a constraint.

The cost function used in our project is more complex compared to this cost function because it considers memory(flash) as a constraint along with execution time.