Errata to ”Time-Triggered Co-Scheduling of Computation and Communication with Jitter Requirements” [1]

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Abstract—We present the correct equation on linearisation of jitter constraints for ILP and the correct equation on computation slack of activities.

The correct formulation of Equation (12) (linearization of the jitter constraints) is

\[
\begin{align*}
s_i^j - (s_i^{j-1} + p_i) & \leq jit_i, \\
s_i^j - (s_i^{j-1} + p_i) & \geq -jit_i, \\
(s_i^1 + H) - (s_i^{n_i} + p_i) & \leq jit_i, \\
(s_i^1 + H) - (s_i^{n_i} + p_i) & \geq -jit_i, \\
j = 2, \ldots, n_i, a_i \in A.
\end{align*}
\]

This corresponds to linearization of Equation (10), which is formulated as

\[
\begin{align*}
|s_i^j - (s_i^{j-1} + p_i)| & \leq jit_i, \\
|(s_i^1 + H) - (s_i^{n_i} + p_i)| & \leq jit_i, \\
j = 2, \ldots, n_i, a_i \in A,
\end{align*}
\]

where the unnecessary index k is removed and the second equation is regrouped to be more intuitive to understand.

Also, the correct version of Equation (13) to compute maximum slack is

\[
I_i = 2 \cdot p_i - (t^b + t^a + e_i) + 1
\]

REFERENCES