Instituto Tecnológico de Costa Rica Área Académica de Ingeniería en Computadores Proyecto de Diseño en Ingeniería en Computadores



Progress report #2 for the project: Design of (ASIPs) for Approximate Computing

Chair for Embedded Systems (CES) Kalrsruhe Institute of Technology (KIT) Period: 05/03/2018 (week 5) - 16/03/2018 (week 6)

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1 Performed activities

- 1. Get to know the software platform:
- 2. Find appropriate error-tolerant applications:
- 3. Redact Design document: The final design document was send to the professor.

2 Change of scope

3 Gained value analysis

Table 1 summarizes the gained value analysis.

Table 1: Revision History

Activity ID	Activity	Budget	%Planned Value	PV	AC	%Completed work	EV	CPI	SPI	Initial planned date	Ending date	Initial real date	Real ending
01	Get to know the software platform	32	100%	32	30	95%	30.4	1.01	0.95	Week 1	Week 3	Week 1	-
02	Find appropriate error-tolerant applications	32	100%	32	20	70%	22.4	1.12	0.7	Week 4	Week 7	Week 4	-
06	Redact Design document	8	100%	8	7	100%	8	1.14	1	Week 3	Week 4	Week 3	Week 5

4 Encountered difficulties

5 Hard skills required/acquired

Knowledge in the following software frameworks has been acquired: Dlxsim, ModelSim and Xilinx ISE.

6 Soft skills required/acquired

The following soft skills have been excercised:

• Communication: Weekly remote communication has been performed with Jorge Castro for the guidance of this project, and with Sajjad Hussain to request technical aid in

the server. With both, swift communication was achieved, each topic that was talked was resolved or clarified in very few messages (one or two at most).

- Self-Motivation: Given that there is no direct round-the-clock supervision, self-motivation has been key in working continuously in the laboratory sessions.
- Problem Solving: The laboratory sessions provide several challenges given the theoretical aspects of assembly instructions and processor structure, which need to be addressed and later compared with a given solution.
- Problem Solving: Since there are a lot of approximable applications, careful analysis of existing applications has been key in reducing the search space to be manageable.

7 Learned lessons

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References