Massachusetts Institute of Technology
Department of Electrical Engineering and Computer Science

Proposal for Thesis Research in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy

Title: Parallel Processor Architecture

Submitted by: Peter Nuth
305 Memorial Drive, 606C
Cambridge, MA 02139

(Signature of Author)

Date of Submission: July 19, 2016
Expected Date of Completion: September 1990
Laboratory: Artificial Intelligence Laboratory

Brief Statement of the Problem:

The proposed research is a study of processor architecture for large scale parallel computer systems. The thesis introduces mechanisms for fast context switching, synchronization between tasks, and run-time binding of variable names to processor memory. Various design tradeoffs are evaluated through simulation of a processor running a typical load. This work contains estimates of the speed and complexity of the different alternatives as implemented in VLSI.

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Doctoral Thesis Supervision Agreement

To: Department Graduate Committee
From: Professor William J. Dally

The program outlined in the proposal:

Title: Parallel Processor Architecture
Author: Peter Nuth
Date: July 19, 2016

is adequate for a Doctoral thesis. I believe that appropriate readers for this thesis would be:

Reader 1: Professor Arvind
Reader 2: Professor Thomas Knight

Facilities and support for the research outlined in the proposal are available. I am willing to supervise the thesis and evaluate the thesis report.

Signed: _____
Associate Professor of Electrical Engineering and Computer Science

Date: _____

Comments:

_____

_____

_____

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Cambridge, Massachusetts 02139

Doctoral Thesis Reader Agreement

To: Department Graduate Committee
From: Professor Arvind

The program outlined in the proposal:

Title:	Parallel Processor Architecture
Author:	Peter Nuth
Date:	July 19, 2016
Supervisor:	Professor William J. Dally
Other Reader:	Professor Thomas Knight

is adequate for a Doctoral thesis. I am willing to aid in guiding the research and in evaluating the thesis report as a reader.

Signed: _____
Professor of Electrical Engineering and Computer Science

Date: _____

Comments:

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Cambridge, Massachusetts 02139

Doctoral Thesis Reader Agreement

To: Department Graduate Committee
From: Professor Thomas Knight

The program outlined in the proposal:

Title:	Parallel Processor Architecture
Author:	Peter Nuth
Date:	July 19, 2016
Supervisor:	Professor William J. Dally
Other Reader:	Professor Arvind

is adequate for a Doctoral thesis. I am willing to aid in guiding the research and in evaluating the thesis report as a reader.

Signed: _____
Assistant Professor of Electrical Engineering and Computer Science

Date: _____

Comments:

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Cambridge, Massachusetts 02139

Doctoral Thesis Reader Agreement

To: Department Graduate Committee
From: Professor William J. Dally

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Other Reader:	Professor Arvind
Other Reader:	Professor Thomas Knight

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Signed: _____
Associate Professor of Electrical Engineering and Computer Science

Date: _____

Comments: