MEMO: TSR-04
DATE: November 17, 2017
TO: EFC LaBerge
FROM: Sabbir Ahmed, Jeffrey Osazuwa, Howard To, Brian Weber
SUBJECT: Team Status Report

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1) Introduction

The Galois Field Arithmetic Unit will accept inputs to determine n, and to establish the fieldgenerating polynomial. The unit would serve as a computation engine for a relatively low-powered microcontroller, and would enable complex code and encryption algorithms. Project will include implementation of a Reed Solomon encoder and decoder using the GFAU. The purpose of this report is to detail the progress of the GFAU in the period of November 3, 2017 through November 17, 2017. This is the fourth status report for the GFAU project.

2) Completed Tasks

During this work period, the team has continued to make progress on the GFAU. Including the following achievements:

a) Determined algorithm and digital design behind multiplication and division operations
b) Multiplexer module has been completed and tested
c) Addition and subtraction modules have been completed and tested
d) Updated background information behind design implementation

3) Planned Tasks

a) Implementation of the multiplication and division modules
b) Preliminary design of the control unit module
c) Finalize the creation of remaining low level VHDL modules
d) Conduct further research on accessing data in external parallel memory
e) Meet with Dr. Robucci or Dr. Mohsenin to discuss features of development boards and their trade-offs.

4) Current Issues

No issues in team dynamics or lack of resources exist in the team so far.