MEMO: TSR-01
DATE: October 6, 2017
TO: EFC LaBerge
FROM: Sabbir Ahmed, Jeffrey Osazuwa, Howard To, Brian Weber
SUBJECT: Team Status Report

1 Introduction

The Galois Field Arithmetic Unit will accept inputs to determine n, and to establish the field generating polynomial. A GFAU 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 September 18, 2017 through October 6, 2017. This is the first 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) Discussed about team management, work distribution, means of communication and came up with a team contract that all members agreed to abide to. The team contract also detailed the consequences of not following any of the items on the contract.

b) System Boundary Diagram

c) Specs

d) The project manager has met and familiarized himself with the team and the project. The team discussed the ultimate goals of the Capstone project and clarified the requirements and milestones. Means of communication with the team manager have been established, and regular scheduled meetings have been agreed upon.

e) The team has demonstrated a strong understanding on the mathematics and background behind the Galois field and its relevant concepts. A document has been attached detailing the steps required to analyze a given polynomial in the Galois field of 2 (represented as GF(2)(x)), determine its irreducibility, generate the terms in the "little field" and perform addition and multiplication with them.

3 Planned Tasks

a) SRS

b) Complete a Gantt chart for the entire project, highlighting the milestones and the expected time required for each step

4 Current Issues