

# Project proposal (Advanced Computer Architectures)

Efficient Non-Standard Numeric System C++ Representations: LNS

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Size of the project: 1 student

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## Abstract

Exploit the logarithmic number system to efficiently implement a numeric data type in C++.

## Pre-requirements

- Intermediate knowledge of C++11 language and idioms
- Basic Linux skills

## Involved Technologies and Frameworks

- C++11

## Detailed description

Implement a C++ library with operators to make its use convenient. You can refer to here<sup>1</sup> as an example of C++ number representation library.

Use LNS (logarithmic number system)<sup>2</sup> to represent numbers.

The goal of this project is to implement and test the efficiency of a numeric data type based on LNS.

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<sup>1</sup> <https://github.com/skeru/fixedpoint>

<sup>2</sup> <http://coep.vlab.co.in/?sub=29&brch=88&sim=1353&cnt=1>