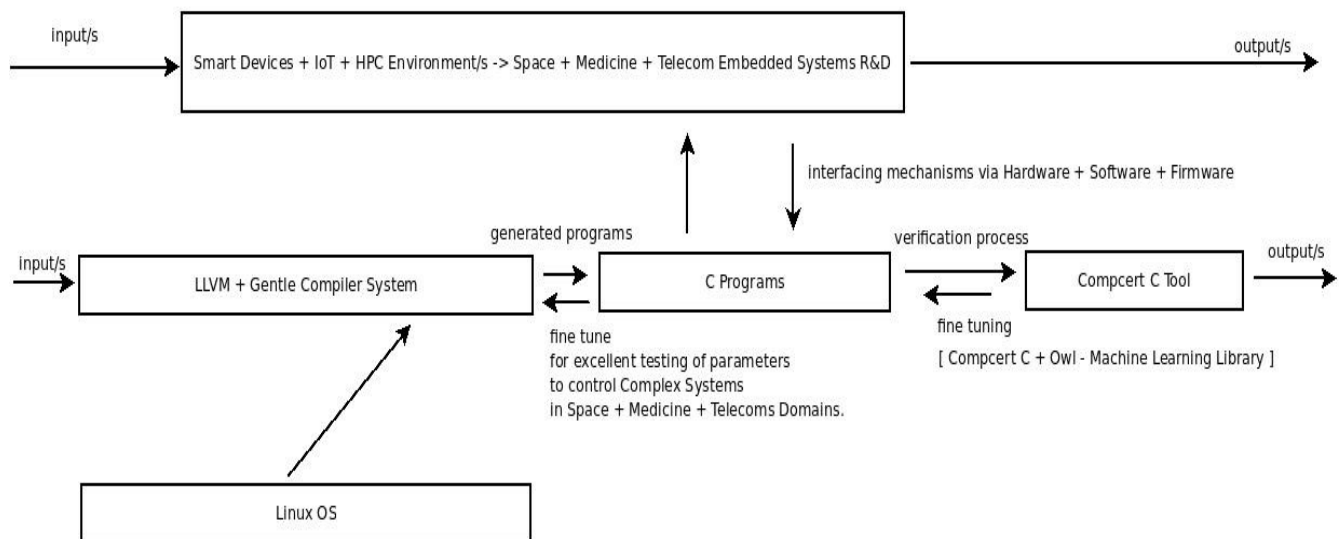**Testing LLVM or Gentle Compiler Construction System Generated Programs Using Compcert C → A Simple Suggestion to Explore the above mentioned Software Tools → Space + Medicine + Telecom R&D involving Embedded Systems Domains.**

Nirmal – Informatics R&D – USA/UK/Israel/BRICS Group.
        Contact_info – hmfg2014@gmail.com

[I] Main Idea + Inspiration + Introduction :

A SIMPLE ADVANCED C PROGRAMS TESTING FRAMEWORK USING FUNCTIONAL PROGRAMMING + MATHEMATICS + MACHINE LEARNING
ONE OF THE PIONEERING R&D EFFORTS IN THE EMBEDDED SYSTEMS DOMAIN INVOLVING LLVM + GENTLE + COMPCERT C
VERY USEFUL IN MISSION CRITITCAL DOMAINS LIKE SPACE MEDICINE etc.

input/s

Smart Devices + IoT + HPC Environment/s -> Space + Medicine + Telecom Embedded Systems R&D

output/s

interfacing mechanisms via Hardware + Software + Firmware

generated programs

verification process

output/s

input/s

LLVM + Gentle Compiler System

C Programs

Compcert C Tool

fine tune

fine tuning

[Compcert C + Owl - Machine Learning Library]

fine tune
for excellent testing of parameters
to control Complex Systems
in Space + Medicine + Telecoms Domains.

Linux OS

Simple Algorithm to TEST our Ideas involving all the above mentioned Software + Firmware + Hardware + Machine Learning Concepts

Testing in Progress with some promising results.

Actual Implementation might vary please check.

Thanks - Dr.Nirmal - Informatics R&D.

Please Check & Satisfy Yourselves.

[Figure I - Algorithm I – ES Informatics Testing Framework]

*ES – Embedded Systems Testing Using C Programs + CompcertC + OWL.

[II] Important References :

[a] http://gentle.compilertools.net/ [b] https://llvm.org/

[c] https://compcert.org/ [d] https://github.com/tejdnk-2019-ShortNotes

[THE END]