E Prover + CLIPS Expert System for [BIST*] of Space & Medical Instrumentation Systems   → Using Smart Devices + IoT + HPC Systems + Heterogeneous Environment/s.

[Exploring BIST* Techniques → Built-in Self Testing for Intelligent Embedded Systems → w.r.t Hardware + Software + Firmware]

Nirmal – Informatics R&D – USA/UK/Germany/Israel/BRICS Group of Nations.
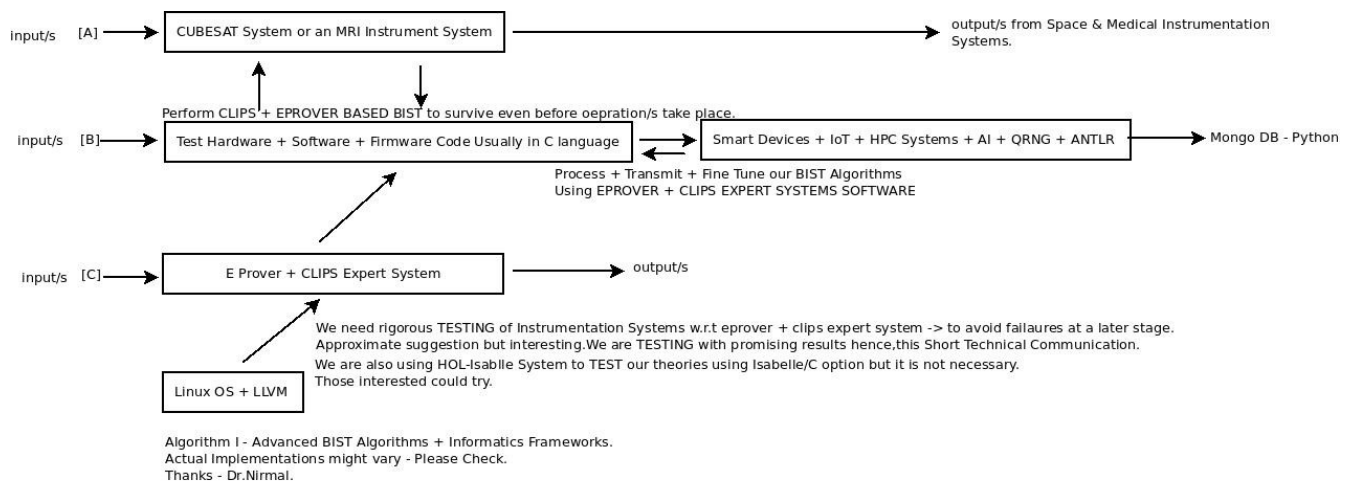   Current Member – ante Inst UTD Dallas TX USA.
              Contact_info – hmfg2014@gmail.com

[I] Main Idea + Inspiration + Introduction :

[a] https://wwwlehre.dhbw-stuttgart.de/~sschulz/E/References.html → EPROVER.

[b] http://www.clipsrules.net → CLIPS Expert System available in C and Ruby.

[II] R&D Informatics Framework :

input/s [A] → CUBESAT System or an MRI Instrument System → output/s from Space & Medical Instrumentation Systems.

Perform CLIPS + EPROVER BASED BIST to survive even before oepration/s take place.

input/s [B] → Test Hardware + Software + Firmware Code Usually in C language → Smart Devices + IoT + HPC Systems + AI + QRNG + ANTLR → Mongo DB - Python

Process + Transmit + Fine Tune our BIST Algorithms
Using EPROVER + CLIPS EXPERT SYSTEMS SOFTWARE

input/s [C] → E Prover + CLIPS Expert System → output/s

We need rigorous TESTING of Instrumentation Systems w.r.t eprover + clips expert system -> to avoid failaures at a later stage.
Approximate suggestion but interesting.We are TESTING with promising results hence,this Short Technical Communication.
We are also using HOL-Isablle System to TEST our theories using Isabelle/C option but it is not necessary.
Those interested could try.

Linux OS + LLVM

Algorithm I - Advanced BIST Algorithms + Informatics Frameworks.
Actual Implementations might vary - Please Check.
Thanks - Dr.Nirmal.

[Figure I – Algorithm I – Simple Idea → To Probe BIST Algorithms]

[III] References for R&D :

[a] https://github.com/tejdnk-2019-ShortNotes

[IV] Acknowledgment/s : Sincere Thanks to all WHO made this happen in my LIFE.
Non-Profit R&D. It is GOOD to inspire others always.

[THE END]