

Electronic Circuits Verification using Grobner Bases in the Context of Firmware -> LLVM/Clang/Grobner Bases in C++/Ruby/mruby/QRNG -> Novel R&D Approach -> Firmware Testing Challenges in Embedded Systems.

Nirmal Tej Kumar

Independent Consultant Informatics/Photonics/Nanotechnology/HPC/AI R&D.

R&D Collaborator USA/UK/Israel/BRICS Group of Nations.

Current Member ante Inst,UTD,Dallas,TX,USA.

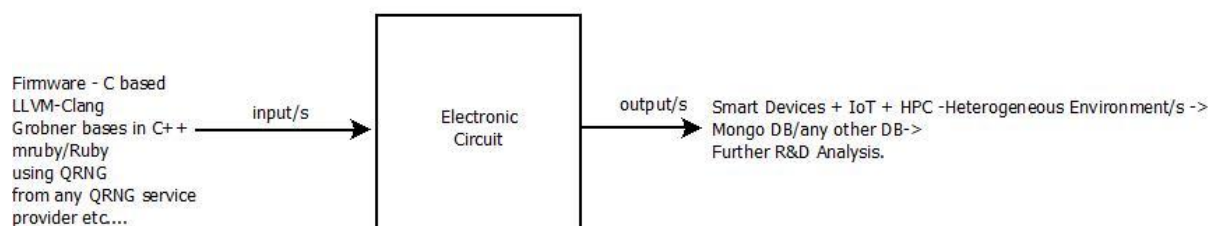
Contact_info hmfg2014@gmail.com

[I] Abstract + Main Idea + Inspiration :

Better Firmware with LLVM/Clang - <https://interrupt.memfault.com/blog/arm-cortexm-with-llvm-clang#using-gcc-and-clang>

[II] Informatics Framework Using Above Mentioned Software Tools + Grobner Bases :

Firmware Related -> Challenges + Testing -> in the Context of Space + Medicine + Military + Telecom R&D Domains.



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A L G O R I T H M -I SIMPLE INFORMATICS FRAMEWORK FOR TESTING FIRMWARE

SORT OF NOVEL APPROACH USED WITH A COMBINATION OF TESTING TECHNIQUES
TO MAKE SURE ELECTRONIC CIRCUITS SEND US SOME SIGNALS.
TESTING IN PROGRESS.
GROBNER BASES BASED PROBING OF SIGNALS IS AN EXCELLENT DESIGN TOOL.
Thanks - Dr.Nirmal.
Please see our Short Technical Communications - via Vixra.org.

[Figure I – A Simple Test Bed for Testing Firmware for Mission Critical Applications]

[C/C++/Ruby/mruby -> Excellent Combination]

[III] Important References :

- [a] <https://vixra.org/pdf/1907.0306v1.pdf>
- [b] <https://arxiv.org/pdf/2007.15876.pdf>

- [c] <https://developers.redhat.com/blog/2020/01/20/mir-a-lightweight-jit-compiler-project/>
- [d] <https://github.com/ruby-llvm/ruby-llvm>

- [e] <https://llvm.org/pubs/2004-Spring-AlexanderssonMSThesis.html>
- [f] https://www.photonics.com/Articles/Related_Quantum_Random_Number_Generator_Service/ar45147
- [g] <https://qrng.physik.hu-berlin.de>

- [h] <https://github.com/k0kubun/lldb>
- [i] <https://github.com/tejdnk-2019-ShortNotes>

[IV] Acknowledgment/s :

Sincere Thanks to all my Mentors + Friends + Collaborators. Non-Profit R&D.

[THE END]