

[Understanding + Investigation] of ZF Theory Using Higher Order Logic(HOL) Theorem Prover in Scala & Moving Forward with ‘Formalization’ of Ruby Language based interaction of ZF Theory in the context of Interfacing [Bosch-XDK IoT Device/QRNG/Quantum Device/HPC Environment/s] towards Advanced Intelligent Telecom Systems R&D – A Simple R&D Informatics Framework Implementation based on [HOL/Scala/Ruby/Deep Learning] Concepts.

[Experimental R&D Using Scala/DL/Java/JikesRVM/JVM/Ruby/mruby/Zermelo–Fraenkel Set Theory(ZF Theory)]

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[I] Inspiration & Introduction to [HOL/ZF Theory/Ruby/QRNG/Quantum Device] :

<https://www.idquantique.com/random-number.../quantis-qrng-chip/>
<https://cran.r-project.org/package=qrng>
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<https://www.nanalyze.com/.../quantum-random-number-generator-qrng/>

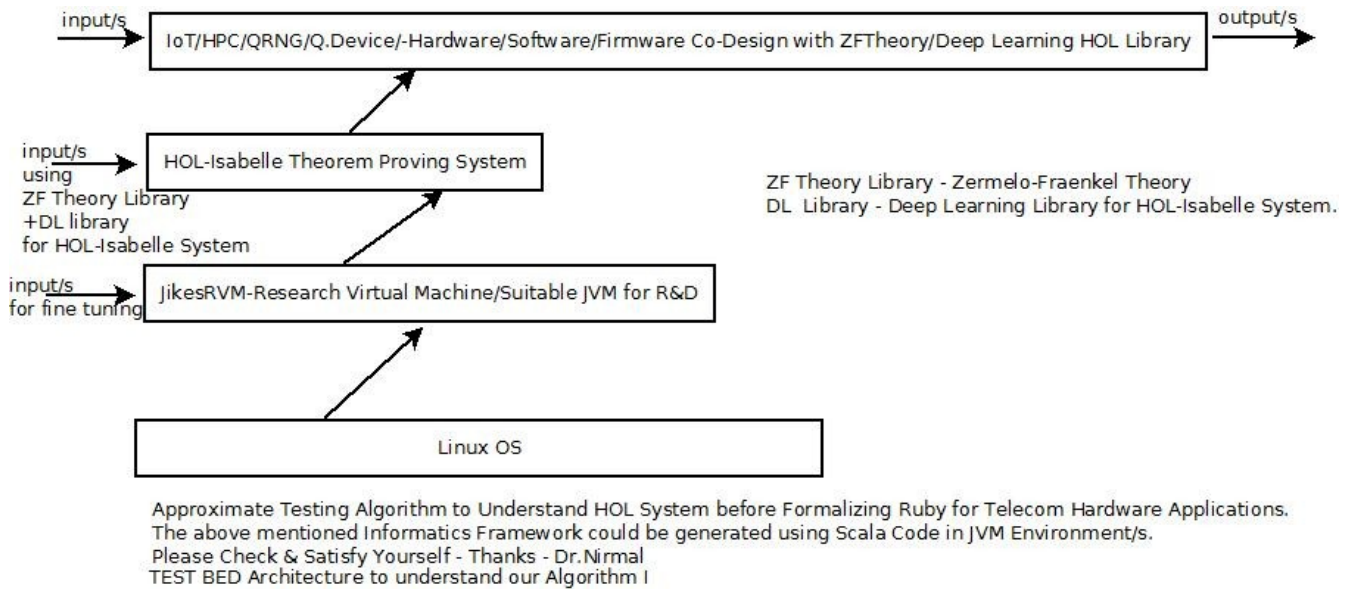
<https://qrng.physik.hu-berlin.de/>
arxiv.org/abs/1904.04819
<https://safenetforum.org/t/quantum-random-number...qrng.../25613>
<https://qt.eu/understand/underlying-principles/qrng/>

https://www.logic.at/lvas/185301/Leivant_higher-order-logic.pdf
<https://isabelle.in.tum.de/doc/tutorial.pdf>
<https://www.cl.cam.ac.uk/~lp15/Grants/holisa.html>
<https://tidsskrift.dk/brics/article/download/19940/17593>
isabelle.in.tum.de/doc/logics-ZF.pdf
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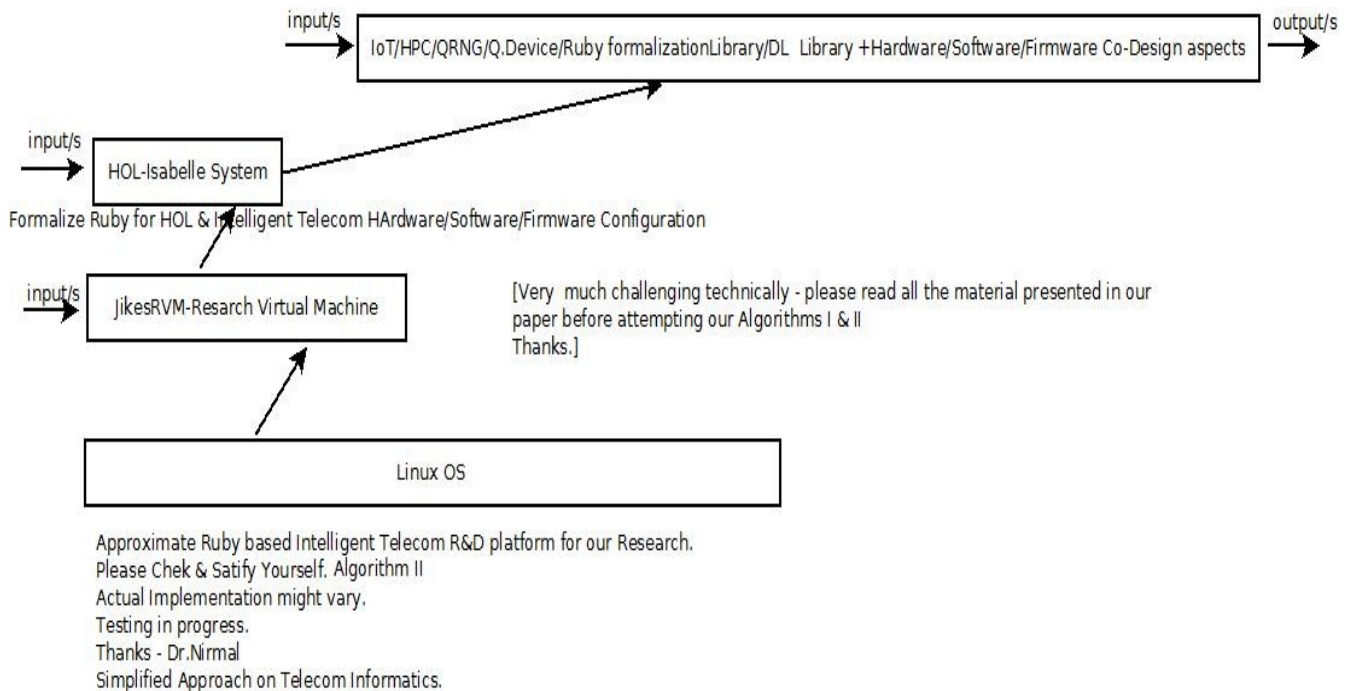
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www.dcs.ed.ac.uk/~isabelle/doc/logics.ps
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https://simple.wikipedia.org/wiki/Zermelo–Fraenkel_set_theory
<https://isabelle.in.tum.de/community/Projects>

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<https://www.semanticscholar.org/...Ruby.../9450457416e6b15046a1f0490a937176a129e81c>
<https://www.cl.cam.ac.uk/techreports/UCAM-CL-TR-201.pdf>
www.doc.ic.ac.uk/~wl/papers/fpl95.pdf – Ruby & FPGA
[https://en.wikipedia.org/wiki/Ruby_\(hardware_description_language\)](https://en.wikipedia.org/wiki/Ruby_(hardware_description_language))
<https://pdfs.semanticscholar.org/.../14139bcda9d35bd4925fcbe8b1b2e6d8610e.pdf>

[II] Telecom Informatics R&D Framework With [AI/ML/DL] Related Concept/s :



[Figure I – Algorithm I- Simple Suggestion to Explore Scala/JikesRVM/HOL/ZFTheory/DL-HOL Library Related Concepts]



[Figure II – Algorithm II – Simple Suggestion to Explore Ruby/HOL/ZFTheory/DL Lib for HOL]

**** Please make a note : Not all details are covered,it is just a Short Technical Note.
 Not straight forward.**

[III] Acknowledgment/s :

*Special Thanks to all my Friends & Mentors. Non-Profit Academic R&D.
Non-Commercial R&D.*

[IV] Useful & Related Information on [Mathematics +Software] Used :

[a] <https://www.math.uchicago.edu/~may/VIGRE/.../Lian.pdf>

[b] <https://plato.stanford.edu/entries/set-theory/ZF.html>

[c] <https://isabelle.in.tum.de/dist/library/ZF/index.html> /

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[j] <https://tidsskrift.dk/brics/article/download/19940/17593>

[k] <https://www.britannica.com/topic/history-of-logic/Set-theory>

[l] citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.16.4263

[m] https://www.researchgate.net/.../Can_one_define_the_axiomatic_approach_of_Rough_set_theory_like_ZF_set_theory

[n] https://www.storyofmathematics.com/20th_cohen.html

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[p] <https://de.wikipedia.org/wiki/Zermelo-Fraenkel-Mengenlehre>

[q] <https://www.cambridge.org/core/.../set-theory-with-a-filter-quantifier.pdf>

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[v] <https://www.it.uu.se/edu/course/homepage/ai/vt05/AI-theorem.html>

[w] <https://www.hillelwayne.com/post/theorem-prover-showdown/>

[x] www.cs.tau.ac.il/~msagiv/courses/ATP/lecture-1.pdf

[y] <https://www.microsoft.com/.../en-us-events-2007summerschool-jamesbridge.ppt>

[z] <https://papers.nips.cc/.../8098-reinforcement-learning-of-theorem-proving.pdf>

[V] References from the Author on Vixra.org that could be useful :

[1] http://vixra.org/author/nirmal_tej_kumar

[2] http://vixra.org/author/dnt_kumar

[3] <http://vixra.org/author/nirmal>

[4] http://vixra.org/author/n_t_kumar

[5] http://vixra.org/author/d_n_t_kumar

***** Some important papers : [<https://dblp.org/pers/g/Guo:Shaori>]**

***** <https://apograp.io/articles/31464>**

[THE END]