

AI/ML/DL Based Python Software + Orlik Solomon[OS] Algebra Python Program to probe Electron Microscopy[EM] Images towards a better Image Processing & Informatics Framework – A Novel Suggestion & Design Approach for Testing EM Image Processing Frameworks in the context of Hyper-plane Arrangement/s.

[A Simple Technical Note on OS Algebra interfacing with AI Software For Hi-End Python based Image Processing]

Nirmal Tej Kumar

Independent Consultant : Informatics/Photonics/Nanotechnology

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

email id : hmfq2014@gmail.com

[I] Inspiration & Introduction :

[a] IMAGEAI Interaction with ImageJ via Jython Plugin/JikesRVM in the context of Advanced Image Processing and Analysis – A Useful Insight into the Promising World of AI,Python & Java Based Image Processing Informatics Framework.

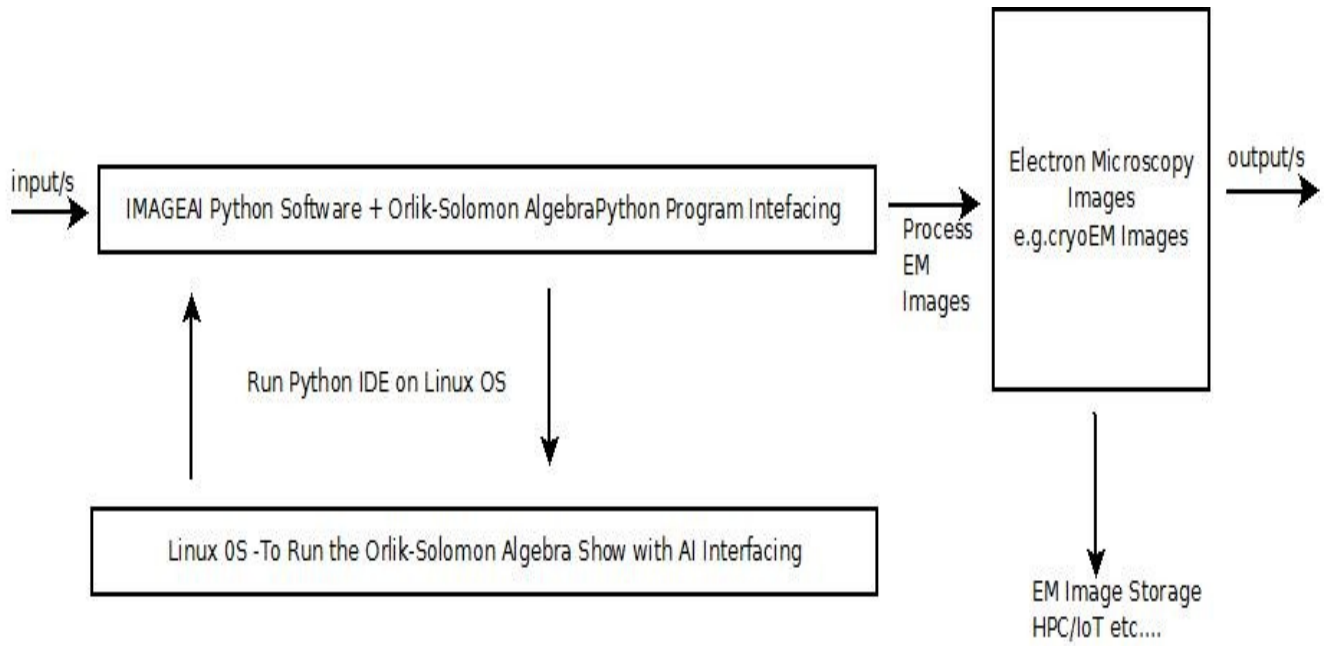
[Source : <http://vixra.org/abs/1812.0454>]

[b] A Short Technical Communication on Ising Model as Mathematical Tools to Probe : CryoEM/SEM/TEM/Raman Spectroscopy/FTIR Based Images Using Python – An Interesting Insight into the Promising World of Image Processing. Though we refer to CryoEM Images it is applicable to all the images obtained through SEM/TEM/Raman Spectroscopy/FTIR etc to probe Nano-Bio Machines and their complex Molecular Systems to advance next generation technology, devices and applications.

[Source : <http://vixra.org/abs/1812.0421>]

[c] <https://math.berkeley.edu/~corteel/combinatorics/bob.html>

[II] Informatics & Image Processing Framework :



Simple Python Based EM Image Processing Informatics Framework involving - IMAGEAI Python Software/Orlik-Solomon AlgebrasPython Program

Figure I – Our Approach & Simple Suggestion

[III] Information on Mathematics & Software Used/Useful :

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

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

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

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

[IV] Acknowledgment/s :

Thanks to all who made this happen. Non-Profit Academic R&D Only.

[V] References on Orlik Solomon Algebras :

[1] www.kurims.kyoto-u.ac.jp/EMIS/journals/PM/63f3/pm63f307.pdf

[2] https://sage.math.leidenuniv.nl/src/algebras/orlik_solomon.py

[3] <https://research.utwente.nl/en/publications/algebras-related-to-posets-of-hyperplanes>

[4] homepages.math.uic.edu/~jaca2009/notes/Randell.pdf

[5] www-users.math.umn.edu/~reiner/Talks/kslides.pdf

[6] <https://www.fields.utoronto.ca/programs/scientific/08-09/orlik-conf/abstracts.html>

[7] <https://www.fields.utoronto.ca/programs/scientific/08-09/orlik-conf/abstracts.html>

[8] <https://www.sciencedirect.com/science/article/pii/S0195669800904451>

[9] https://link.springer.com/chapter/10.1007/978-3-0346-0209-9_4

- [10] https://inis.iaea.org/search/search.aspx?orig_q=RN:40074694
- [11] www.mathnet.ru/eng/rm383
- [12] <https://sites.math.washington.edu/~billey/classes/561.fall.../orlik.solomon.1980.pdf>
- [13] www.math.sci.hokudai.ac.jp/~terao/
- [14] https://en.wikipedia.org/wiki/Arrangement_of_hyperplanes
- [15] https://en.wikipedia.org/wiki/Supersolvable_arrangement

THE END