**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.**

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**[A] Introduction & Inspiration :**

"A python library built to empower developers to build applications and systems with self-contained Deep Learning and Computer Vision capabilities using simple and few lines of code."

"A python library built to empower developers to build applications and systems with self-contained Computer Vision capabilities" - http://imageai.org

Source : https://github.com/OlafenwaMoses / https://www.deepquestai.com/

**Understanding JikesRVM in the Context of Cryo-EM/TEM/SEM Imaging Algorithms and Applications – A General Informatics Introduction from a Software Architecture View Point**

Source : DOI: 10.5958/0975-8089.2016.00001.4

http://vixra.org/abs/1812.0421 - A Short Technical Communication on Ising Model as Mathematical Tools to Probe CryoEM /SEM/TEM/Raman Spectroscopy/FTIR Based Images/MRI Pulse Sequences-Using Python – An Interesting Suggestion & Insight into the Promising World of Image Processing Domains

http://vixra.org/author/nirmal – Helmholtz Equation/Image Processing.
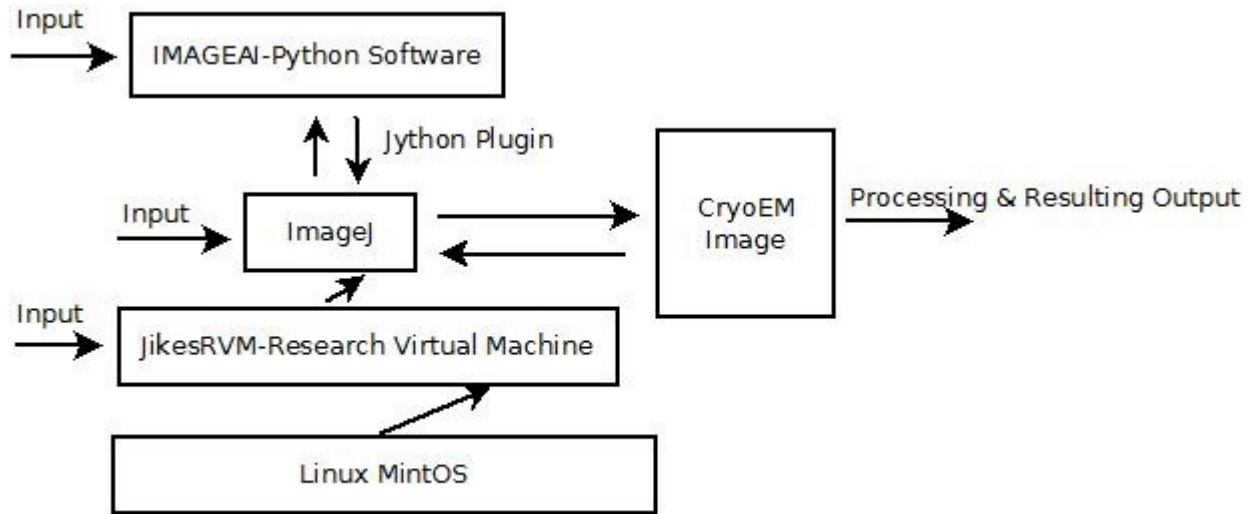
https://www.ima.umn.edu/2016-2017/DSS9.6.16-5.30.17/25478

https://www.fei.com/life-sciences/history-of-cryo-em/

https://en.wikipedia.org/wiki/Cryogenic_electron_microscopy

http://cryoem.berkeley.edu/

**[B] AI Supported Informatics of Python& Java Based Image Processing Framework :**



Input → IMAGEAI-Python Software

Jython Plugin

Input → ImageJ

CryoEM Image → Processing & Resulting Output

Input → JikesRVM-Research Virtual Machine

Linux MintOS

Approximate AI Based Image Processing Framework & Its Informatics

**Figure I – Approximate AI Based Image Processing Framework & Its Informatics**
**Actual Implementation could vary to some extent.**
**Please check & Satisfy.**

**\*\*\*Please read all the materials presented as references to understand before you start implementing this algorithm.Written and presented only to inspire other researchers.**

**\*\* NON Profit R&D\*\*\***

**[C] Additional Information on Mathematics & Software Used :**

http://vixra.org/author/nirmal_tej_kumar

http://vixra.org/author/d_n_t_kumar

http://vixra.org/author/n_t_kumar

https://web.ma.utexas.edu/users/hadani/publications.htm

https://imagej.net/Jython_Scripting / https://imagej.net/Welcome / https://fiji.sc/

https://arxiv.org/abs/1803.06714 – cryoEM Imaging Mathematics.

http://vsarkar.rice.edu/research/publications/publi-jikes/

https://researcher.watson.ibm.com/researcher/view_group.php?id=214

http://dmakarov.github.io/work/guide/

https://www.jikesrvm.org/

https://www.python.org/

http://www.jython.org/ ; https://www.ibm.com/developerworks/java/tutorials/j-jython1/j-jython1.html

https://www.javalobby.org//articles/jython/

**THE END**