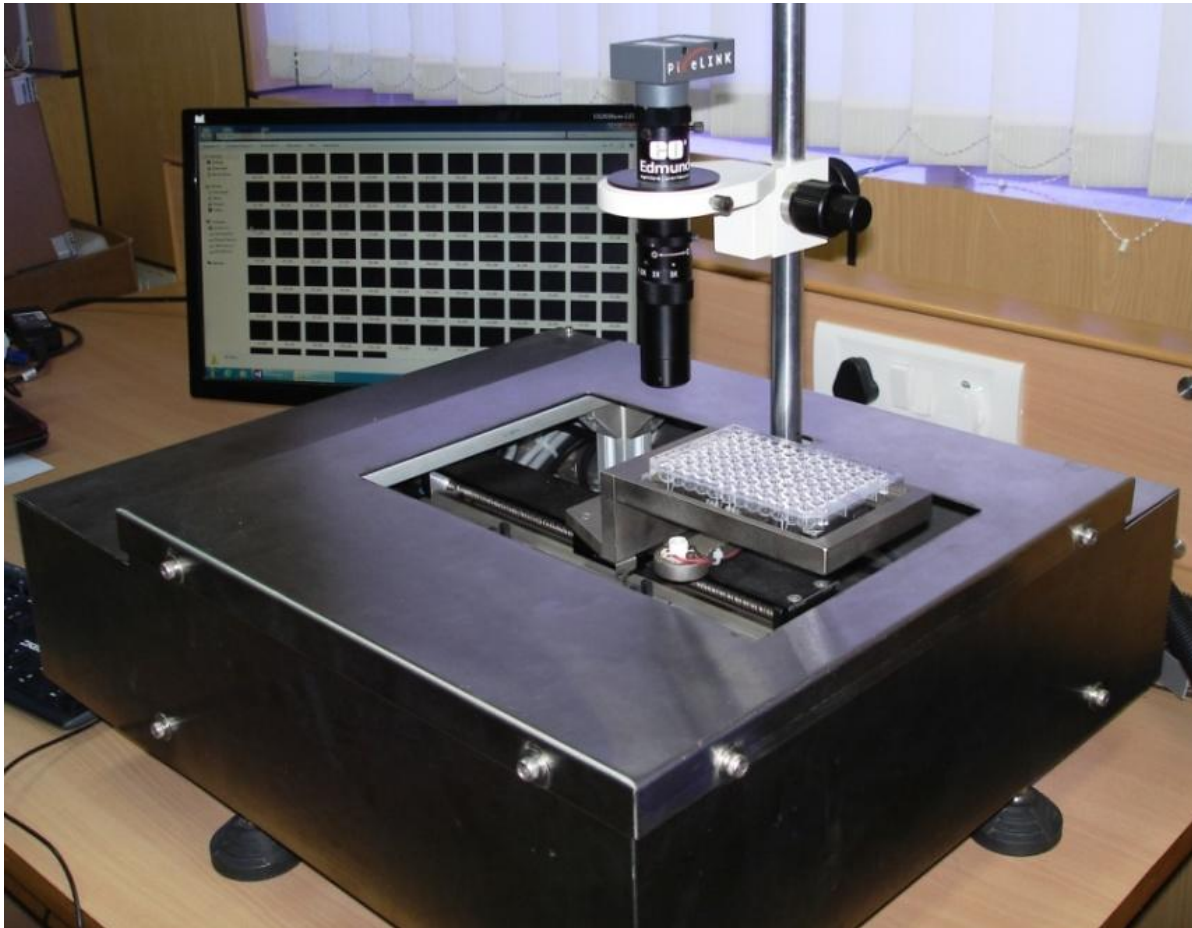


Imaging System for Protein Crystallography

Indigenous automated system with powerful image processing algorithms to monitor the protein crystal growth of 96 well by imaging the crystallization steps in frequent intervals of time

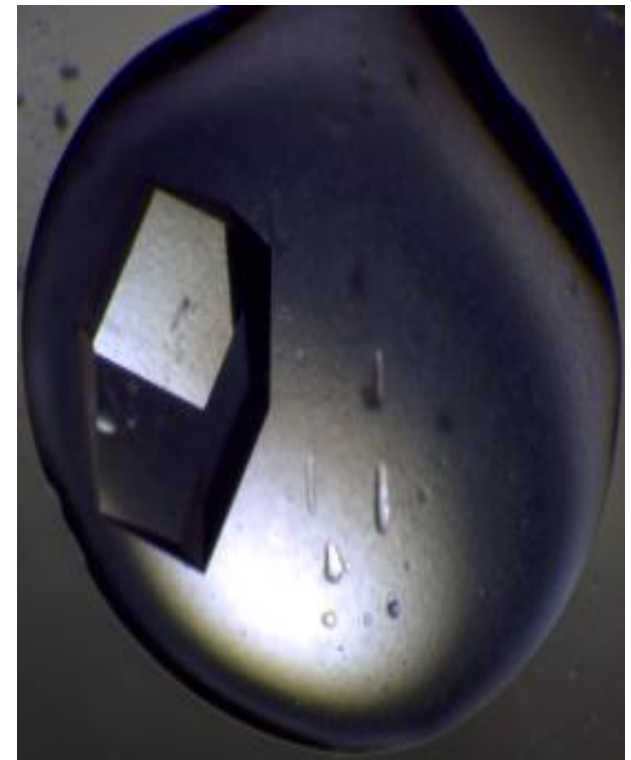
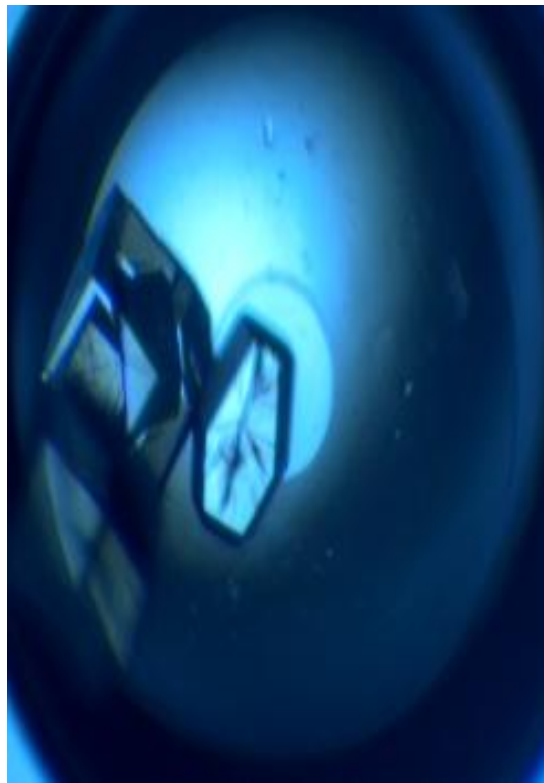
Challenges- Accurate detection, segmentation & fusion of multi-focal images of protein crystals and precise robotic motion



Features-

- Custom designed microscopic imaging system upto 100x
- Automated translation of zoom lens to capture multiple depth images of a single well
- Customize illumination control to locate the drops.
- Wavelet & guided filter banks based focus stacking (fusion) algorithm to find extended focus single image of each well.

Imaging system for Protein crystallography



Single Protein Crystal images in 2mm oil drop
(captured by imaging system from single well of 96 well plate)

- Advanced computation methods and AI based powerful algorithms for characterization of different states of crystallization process.
- Image algorithm for analyzing the crystal size
- Precise control of robotic system
- User friendly software – View the captured drop images at different interval in different crystallization condition