

New Horizon College of Engineering
Department of Basic Science and Humanities
Report on FDP

Conducted on: 11/08/2018

Time: 9.30am to 4.30pm

Venue: Room No. C309

Topic: X-ray diffraction data analysis

Members Attended: 14 (signatures attached)

Resource Person: Dr. Daruga Prasad, Professor, Dept. of Physics, BMSIT, Bengaluru

Methodology: Power Point Presentation, Software usage training by practical session

Objectives: To improve the vertical skill set in the area of structural Characterization through X-ray diffraction data analysis

Summary:

A one day FDP programme on **X-ray diffraction data analysis** was held at Department of Basic science and humanities, New Horizon College of Engineering under the aegis of Quality Assurance and Skills Development Centre, NHCE on 11.08.2018. The emerging field of Material science and Nanotechnology is incomplete without the structural characterization of the materials with special reference to the XRD. The phase, crystallite size, the formation of the nanomaterial etc., is realized through XRD. The FDP provided the faculty of the Physics and Chemistry departments a vertical skill set in the X-ray data analysis.

The session commenced with the introduction to X ray diffraction. Furthermore faculty members had hands on experience of JCPDS matching with the raw data using Crystallographica software, which was followed by Rietveld refinement of XRD data using Full Prof suite software which was preloaded in the faculty laptops. The handson experience is of great benefit for the participants as the topics matched with the current working domain. Participants were enlightened with the data analysis methodologies in this domain.

