

HANDS ON WORKSHOP on "Advance Techniques in Isolation, Purification and characterization of Industrial and pharmaceutical important enzymes, emerging application and the way forward" dated 18<sup>th</sup> Dec. to 21<sup>st</sup> Dec. 2017  
Venue : Department of Botany and Biotechnology (Bokaro Steel City College, Bokaro)

Bokaro Steel City College, Bokaro organized four days hands on workshop for the students of botany and biotechnology in collaboration with niTza Bio venture, Hyderabad from 18<sup>th</sup> Dec. to 21<sup>st</sup> Dec. 2017 on the topic "Advance Techniques in Isolation, Purification and characterization of Industrial and pharmaceutical important enzymes, emerging application and the way forward".

The workshop was chaired by the Principal/Director Dr. S. K. Sharma and coordinated by Dr. K. K. Mishra (H.O.D Botany & Coordinator Biotechnology) .Resource person for the session was Sunakar Nayak (Director niTza ) and Debashish Sahu (Application Scientist)

#### Sessions included

1. Introduction to Bio-Science
2. Extraction of Enzymes, Crude enzyme assay and purification, salt precipitation .
3. Dialysis
4. Enzyme assay, Purification Techniques
5. Ion exchange chromatography, assay for elutes.
6. Chromatography techniques, Quantitative estimation of protein and enzymes kinetics
7. Quantitative estimation of protein, effect of PH, Temperature
8. Electrophoresis techniques, Immobilization
9. Substrate concentration, Activation, Inhibition
10. Application of enzymes
11. SDS- PAGE
12. Check the application enzymes

#### Members Present:

Dr. P. K. Jha [Prof. Incharge, HOD Chemistry]  
Dr. Bhagwan Pathak [HOD Hindi]  
Dr. R. K. Tiwary [HOD Mathematics]  
Dr. Umamageshwari [HOD Physics]  
Dr. Kalpana Prasad [Asst. Prof.]  
Dr. Pallavi Praveen [Asst. Prof.]  
Shri. Gobind Prasad [Faculty Bio-Tech]  
Miss. Indu [Faculty Bio-Tech]  
and 49 Students.

Certificates were awarded to the student and letter of appreciation was awarded for the same.



Principal

Bokaro Steel City College, Bokaro  
*Principal*  
Bokaro Steel City College  
Bokaro