

Bio-data of Dr. P. C. Beuria, Principal Scientist, Mineral Processing Department



Dr. Prabhas Chandra Beuria completed his Ph. D. in Metallurgical and Materials Engineering from Indian institute of Technology (IIT) Kharagpur after graduating in Mechanical Engineering from National Institute of Technology (NIT) Jamshedpur. Initially he worked for Trafalgar Satyam Shankarnarayan(TSS) JV. about two years, largely in project management at Upper Indravati Hydro Electric Project. The company, which is a joint venture of Traffalgar, Satyam & Shankarnarayan, is an internationally renowned Construction Company for construction of big dams, bridges, flyovers, & roads etc. He joined CSIR-IMMT, Bhubaneswar in Design & Project Engineering Department in the year 1998. At present he is working as Principal Scientist in Mineral Processing Department. He is well conversant with designing software like Auto CAD, IDEAS, and CATIA. He has been engaged in Design and development of mineral processing equipments & processes, treatment of low grade ores, fluidized bed roasting of ores, beneficiation of high ash non-coking and coking coal, process material handling, mmineral processing plant audit, preparation of basic engineering, technical support for detailed engineering & commissioning of commercial level mineral processing plant, with hands on experience in modeling & simulation (CFD & BARRACUDA). He is having nearly 22 yrs of experience in Industry and R&D. He has also published many papers in national & international journals.

**EXPERIENCE:**

- Design & development of indigenous mineral processing equipment
- Fluidised bed roasting
- Treatment of low grade ores
- Beneficiation of high ash non-coking and coking coal

- Process Material Handling
- Mineral Processing Plant Audit
- Preparation of basic engineering, technical support for detailed engineering & commissioning of commercial level mineral processing plant

#### AWARDS & HONOURS:

- CSIR Technology Award 2017 by CSIR HQ, New Delhi for Technology for recovery of iron values from low and lean grade iron ore resources.
- SKOCH Order of Merit Award-2017 for process development for production of flaky graphite and high purity graphite.
- IIME Best Paper Award (Agglomeration) 2013
- National Merit Scholarship

#### RECENT IMPORTANT PUBLICATIONS:

- **Beuria P.C.**, Biswal S.K., Mishra B.K. and Roy G.G., Kinetics of thermal decomposition of hydrated minerals associated with hematite ore in a fluidized bed reactor, Elsevier Editorial System™, International Journal of Minerals, Metallurgy and Materials; 24(3); 229-239; 2017.
- **Beuria P.C.**, Biswal S.K., Mishra B.K. and Roy G.G., Study on kinetics of thermal decomposition of low LOI goethetic hematite iron ore, Elsevier Editorial System(tm) , International Journal of Mining Science and Technology;27,1031-1036, 2017.
- **Beuria P.C.**, Biswal S.K., Mishra B.K. and Roy G.G., Kinetics study on removal of LOI by thermal decomposition of hydrated minerals associated in hematite ore, Journal of Thermal Analysis and Calorimetry; 126:1231–1241; 2016.

#### LIST OF PUBLICATIONS IN INTERNATIONAL CONFERENCES

- **Beuria P.C.**, Tripathy A., Sahu A.K., Biswal S.K., Mishra B.K. and Roy G.G., Study on fluidisation characteristics of high goethitic iron ore fines, International Seminar on Mineral processing Technology-2013, MPT-2013,, Vol. 2 484, 2013.

- Sahu S.N., Prusti P., Satapathy D., **Beuria P.C.**, Sahu A.K., Nayak B.K. and Biswal S.K., Pilot scale study on low grade phosphate ore, International Seminar on Mineral processing Technology-2013, MPT-2013,, Vol. 2, 560, 2013.
- Sahu S.N., Prusti P., Satapathy D., **Beuria P.C.**, Sahu A.K., Nayak B.K. and Biswal S.K., Beneficiation of banded hematite quartzite need of hour, International Seminar on Mineral processing Technology-2013, MPT-2013,, Vol. 2, 464, 2013.
- Prusti P., Sahu S.N., Satapathy D., **Beuria P.C.**, Sahu A.K., Nayak B.K. and Biswal S.K., Beneficiation study on the low grade BHQ associated with BMQ iron ore, International Seminar on Mineral processing Technology-2013, MPT-2013,, Vol. 2, 458, 2013.
- Prusti P., Sahu S.N., Satapathy D., **Beuria P.C.**, Sahu A.K., Nayak B.K. and Biswal S.K., Pelletization of high LOI and high Blaine number iron ore concentrate: case studies, AITES, EMMMI-2013, Vol. 2, 712, 2013.
- **Beuria P.C.**, Biswal S.K., Mishra B.K. and Roy G.G., Kinetic study on heating cycle for removal of LOI, XXXVI International Mineral Processing Congress, Ref. No. 817 IMPC-2012.
- **Beuria P.C.**, Tripathy A., Sahu A.K., Biswal S.K., Mishra B.K. and Roy G.G., Kinetic study on removal of LOI from iron ore pellet feed, International Seminar on Mineral processing Technology-2011, MPT-2011, Vol. FE 32, 2011.
- **Beuria P.C.**, Mishra B.K and Roy G.G. Modeling of fluidized bed system for removal of LOI from high goethitic iron ore fines for pelletisation. Research Scholar's Day 2009 Souvenir, Indian Institute of Technology, Kharagpur., 2009.
- Khuntia S., Sahu A.K., and **Beuria P.C.**, Terafil Water Filter for sustainable drinking water programme, proceeding of 2<sup>nd</sup> International Conference on Open Collaborative Design for Sustainable Innovation, Bangalore, India, December '2002.
- Khuntia S., Sahu A.K., Acharya C.R., and **Beuria P.C.**, Development of Power operated Pulse Thresher-cum- Winnower; proceeding of 2<sup>nd</sup> International Conference on Open Collaborative Design for Sustainable Innovation, Bangalore, India, December '2002.
- Khuntia S., **Beuria P.C.**, and Sahu A.K., Terafil Water Filter, proceeding of "CSIR Journal – Rural Technology Development & Dissemination".
- Khuntia S., Mishra R.N., Sahu A.K., and **Beuria P.C.**, "Terafil Water Filter – A Solution for drinking water problem", proceeding of "Workshop on Energy Efficient & Environmental friendly Technologies for Rural Development", Kolkata, India, September '2002.

- Khuntia S., Sahu A.K., Acharya C.R., and **Beuria P.C.**, “Development of Power operated Pulse Thresher, Grader & Winnower”, proceeding of “SAARC Oils & Fats Today”
- Khuntia S., Sahu A.K., **Beuria P.C.**, and Parida N., “Development of Terafil, Terracotta filter disc for effective filtration & treatment of raw water”, presented in “3<sup>rd</sup> All India People’s Congress” organized by FOSET, Kolkata, India.
- Khuntia S., and **Beuria P.C.**, “Terracotta Water Filter & Multipurpose Oven”, published in “Invention Intelligence”, April ’2000.
- Khuntia S., and **Beuria P.C.**, “Biomass Drier”, presented in “Waste Minimisation”, SISI,Cuttack, April ’1999.
- Khuntia S., **Beuria P.C.**, and Rout A.K.,“Development of a Versatile Biomass Drier”, proceeding of “2<sup>nd</sup> All India People’s Congress” organized by FOSET, Kolkata, India. February’ 1999.
- A Study of the State and History of Improved Chullah Programmes, and of the Effectiveness of the Technology Itself.  
**Beuria P.C.**, Geoff Galon\* and Khuntia S., August 2006  
\*Geoff Gallon is from California Institute of Technology, USA

#### TECHNOLOGY COMMERCIALIZED:

- Low grade iron ore processing
- Low grade graphite processing
- Mineral Processing Equipments
- Hybrid biomass drying system
- TERAFIL water filter

#### PROFESSIONAL SOCIETY MEMBERSHIP

- Life members in Indian Institute of Mineral Engineers (IIME),  
Hon. Secretary, Bhubaneswar Chapter (2013-2015)
- Life Member, Indian Institute of Metals (IIM)
- Life Member, SGAT
- Fellow Institute of Engineers (India)