

## National Mineral Awards – 2007

### **Mineral Beneficiation (including mineral processing, project development and planning leading to utilization of low grade ores and production of value added mineral products and mineral economics)**

Dr. Barda Kanta Mishra, Director, Institute of Mineral & Materials Technology, Bhubaneswar along with his coworker has done well acclaimed research in mineral engineering. His work on particle segregation during jigging has shown that improved efficiency can be achieved in this process with better control of water velocity during the fluidization stage of this cycle. They have developed a numerical tool based on the Discrete Element Method (DEM) for visualizing the progress of particle segregation at small time intervals to optimize the process parameters of jigging at pilot plant as well as industrial scale.

The research done by Dr. Mishra and his teammate has found immense industrial application in improving the quality of coal and iron ores. The seminal contribution made by Dr. Mishra and his co-worker has received international recognition and has brought a revolutionary change in the iron ore processing in India. This technique is being successfully used in a jigging plant at Noamundi for beneficiation of low grade iron ores.

In recognition of his valuable contribution in the field of Mineral Beneficiation by developing innovative technology for improving the quality of the main raw materials required by the steel industry, National Mineral Award - 2007 is conferred upon Dr. Barda Kanta Mishra. He shares this award with his co – worker Dr. Asim Kumar Mukherjee