

## Brief Bio-data

1.0 Names: **Rajiv Ranjan**

2.0 Date of Birth: 05/10/1972

3.0 Current Position and Address (Include Email ID and Contact Number)

Senior Technical officer (1)

Coal Carbonisation Division

CSIR- Central Institute of Mining and fuel Research, Dhanbad

Digwadih Campus, PO- FRI, Dhanbad- 828108

Email- rajivranjan@cimfr.nic.in, rrcimfr@gmail.com

Contact no- 9431512906 0326-2388297

4.0 Educational Qualifications: (Graduation and above)

Sl. NO.	Degree	Year of passing	University/ Institute	Subject
1.0	3 years Diploma	1997	State Board of Technical Education Bihar	Mechanical Engineering
2.0	AMIE Degree course Section A Completed	2009	The Institution of Engineers(India)	Mechanical Engineering

5.0 Work experience:

Designation	Institute/ company	From	to	Nature of work
Senior technical Officer-1	Central Institute of Mining and Fuel Research	06/10/2013	Continue	R & D on Coal Carbonisation
Technical Officer	Central Institute of Mining and Fuel Research	06/10/2008	05/10/2013	R & D on Coal Carbonisation
Senior Technical Assistant	Central Institute of Mining and Fuel Research	06/10/2003	05/10/2008	R & D on Coal Carbonisation
Junior Technical Assistant	Central Institute of Mining and Fuel Research	06/10/1998	05/10/2003	R & D on Coal Carbonisation

6.0 Work Area(s)/ Specialization: coal Carbonisation, Coke making technologies briquetting and pelletization of coal and coke fines.

7.0 Major Contributions (Max. 100 words)

i) Operation of High temperature coal carbonization Pilot Plants

a) Electrically heated coke oven.

b) Pilot non-recovery type coke oven with and without stamp charging system.

ii) Briquettes making in 1 tph capacity pilot scale briquetting plant, thermal treatment in curring chamber (batch type) and Characterization of the products.

- iii) Physical testing of coke such as Micum Index, Shatter Index and Apparent density were also carried out.
- iv) Technical aid to industries along with sub- sampling of coal and coke for laboratory tests pertaining to Carbonization characteristics were also done.
- v) Quality monitoring of iron ore at different loading points.
- vi) Quality monitoring of power coal at different loading and unloading points.
- vii) Chemical testing of coke likes CRI & CSR.
- viii) Training imparted on coke making to the students from different academic institutions.

#### 8.0 No of Research Publications:

- Papers in journals: 01
- In conference proceedings-03
- Invited lectures delivered
- List of best 05 publications  
Preheating upto Tarrification Point and Compaction: A Promising Way for Coke Quality Enhancement. Int. J. Coal preparation and Utilization, 10.1080/19392699(Impact Factor: 2.697)
- Books / Chapters authored/edited

#### 9.0 List of 5 Major Contract R&D Projects:

- i) Development of process/ technique for potential utilization of high volatile less matured non – coking coal for making hard coke by utilizing stamp charging technology.
- ii) Development of cheap energy efficient by product coke oven for the production of hard coke for steel/ metallurgical use.
- iii) Alternative complimentary route of direct steel making with reference to Indian raw materials.
- iv) Study on the preparation of reactive coke from lignite for Ferro-alloy production.
- v) Study on the preparation of formed coke from low rank for metallurgical use.

#### 10. a) Name of patents/copyrights applied/granted/commercialized:

One Patent titled” An Improved Technology for production of soft coke for Domestic uses”

#### b) Technologies/products/Knowhow/ Services Developed:

- i) Heat Recovery type non-recovery coke oven
- ii) Improved Technology for production of Soft Coke for Domestic uses

#### 11.0 Honors/Awards/Recognitions/Fellowships/Scholarships/Professional Memberships received

#### 12.0 Societal Contributions:

Technical assistance rendered to different industries/ Entrepreneurs who have sponsored different projects and coming here for scientific and technical discussions. Demonstrate the pilot plants to the students and trainees coming from various industries, institutions and Engineering Colleges of India. Also participated actively in skill development programme organized by CIMFR for school children.