Brief Bio-data

1. Name: **Dr Krishna Murari Prasad Singh**
2. Date of Birth: **19-01-1969**
3. Current Position and Address (Include Email ID and Contact Number):
   Principal Scientist, Coal Quality and Value addition, Coal and Mineral Processing Research Group, CSIR-Central Institute of Mining and Fuel Research, Digwadih, Dhanbad, Jharkhand, India-828108
   singh_kmp@yahoo.co.in, kmpsingh69@gmail.com, drkmpsingh@cimfr.nic.in, 9431512931, 9471192491
4. Educational qualifications: (Graduation and above)

Sl. No.	Degree	Year of Passing	University/Institute	Subject
1	B Sc(H)	1990	R University Ranchi	Industrial Che., (Che.,Bot. & Zoo.)
2	M Sc	1992	BVU, Hazaribag	Chemistry
3	M Phil	1997	ISM, Dhanbad	Applied Chemistry
4	Ph D	2014	ISM, Dhanbad	

5. Work experience:

Designation	Institute/company	From	To	Nature of Work
Scientist B	CSIR-CFRI	28/05/ 2001	27/05/2006	Scintific
Scientist C	CSIR-CFRI/CIMFR	28/05/ 2006	27/05/2011	Scintific
Sr. Scientist	CSIR-CIMFR	28/05/ 2011	27/05/2017	Scintific
Pr Scientist	CSIR-CIMFR	28/05/2017	Continue	Scintific

6. Work Area(s)/ Specialization: **Coarse and Fine Coal Benificiations**

7. Major contributions: (Max. 100 words):
   1) Indiginiously developed on-line coal washability analyser as a Principal investigator involved in the inceptions to execution of the project, and created the facialities as:
      - Establish the concept and developed X-based Laboratory model coal washability analyzer at CSIR- CIMFR. Developed on-line model coal washability analyzer, in synchronization to coal washing pilot plant and demonstrate its capabilities
      - Facilitate CSIR- CIMFR with high end instruments involved from its inception to commissioning
        a) FE-SEM coupled with EDS.
        b) DSC-TGA DTA (STA) with on-line & off-line FT-IR and GC-MS
      - Initiatives taken for construction of a two story building for erection of on-line coal washability analyser in synchronizing with existing coal washing pilot plant
   2) Providing scientific and technical services for Imported and Indiginuos coking & thermal coal coming through Vessels/ Ship from various countries unloaded at different port end for Steel Authority of India Limited, other Iron and Steel

company and Thermal power plants. Initiative taken for formulation, planning and execution of the projects.

3) Imparted training for the M Sc/ M Tech students from different academic institution for their dissertation works and supervising two numbers of Ph D students focusing future India.

8. No. of Research Publications:

- Papers in Journals: more than 25
- In conference proceedings: more than 100
- Invited lectures delivered: Nill
- List of best 05 publications:
    I. A Modified Godbert Apparatus for Determining Optimum Level of Beneficiation for Indian NonCoking Coal for Power Generation, K.M.P.Singh; U.S. Chattopadhyay; T. GouriCharan; D.D. Haldar, Taylor & Francis Vol 30, Issue 6, 2010, P -310-321, International Journal of Coal Preparation and Utilization
    II. Comparative Studies on the settling behavior of Indian non-coking coal fines by standard Jar test and Instrument, K.M.P.Singh, G Udayabhanu& T. GouriCharan, Volume 34, Issue 2, 2014, pp 65-74, International Journal of Coal Preparation and Utilization
    III. A Comparative Study of Manual Wagon-Top Sampling and Auto Mechanical Sampling of 200 mm Size Coal with Respect to Stopped-Belt Sampling of Thermal Coal at Indian Thermal Power Plants, K.M.K.Sinha, G.S.Jha, K.K. Sharma, K.M.P.Singh & T.Gouricharan; International Journal of Coal Preparation and Utilization, 36:2, 82-90, DOI: 10.1080/19392699.2015.1051180
    IV. A New approach for studying the washability characteristics through online coal washability analyser; Journal of Mines Metals and Fuels, Special Issue on coal preparation, July 2018, P 388-396; K.M.P. Singh, Priyanka Kumari Ujala, T Gourichran, G V Ramana, Anandaya Sinha & Pradeep K Singh
    V. Nonlinear regression analysis and response surface modeling of Cr (IV) removal from synthetic wastewater by an agro-waste Cocos Nucifera: Box-Behnken Design. Binu Kumaria, Rajani Kant Tiwary, Mahendra Yadav & K.M.P. Singh Pages 791-808| Published online: 21 Dec 2020, Volume 23, 2021 - Issue 8, International Journal of Phytoremediation

- Books/Chapters authored/edited:

    I. Coal Hydrophobicity and the settling behaviour of coal fines tailings, K M P Singh, T Gouricharan and G Udayabhanu, Springer DOI 10.1007/978.3-319-40943-6, P 451-456, XVIII International Coal Preparation Congress 28 June-01 July 2016

9. List of 5 Major Contract R&D Projects:

I. Development of an on-line coal washability Analyzer awarded by Ministry of coal, Government of India. Ministry of Coal under S & T CMPDIL, Ranchi
II. Development of Zero Waste Technology for processing and Utilization of Thermal Coal (ZWT-CUP)
III. Alternative complimentary route of direct steel making with reference to Indian raw materials. Activity- Generation of low ash cleans ranging (10 to 13 percent ash level) from Indian non coking coal for use in DRI
IV. Coal washability study for indigenous coal form different sources for better utilization. Service rendered to JSPL, Jayaswal, Neco, Karnataka Power Corporation Ltd. RDCIS, Ranchi, Rosa Power Ltd. Uttar-Pradesh, and other organizations.
V. Providing scientific and technical services of imported and Indiginuos coking & thermal coal from various country including India unloaded at different port end for Steel Authority of India Limited, Iron and Steel company and Thermal power plants

10. (a) Name of Patents/Copyrights applied /granted/commercialized:

Copyrights applied

I. An automated technique to measure settling velocity of fines in suspensions
II. Indigenously develop Electronically Detection of Minimum Ignition Temperature and Minimum Ignition concentration of coal dust/ fines
III. Process to separate carbonaceous coal fines/ tailings below -0.5mm by Centrifugation.

(b) Technologies/Products /knowhow/Services developed:

I. Indiginiously developed on-line coal washability analyser

11. Honors/Awards/Recognitions/Fellowships/Scholarships/Professional Memberships received:

I. Indian Mining, Geological and Metallurgical Institute of India, Kolkata, life Member
II. Indian Institute of Mineral Engineers (IIME) , life Member and
III. Indian Institute of Metals, Kolkata, life Member

12. Societal Contributions:

I. Imparted Traning to a number of M.Sc./ M.E/ M.Tech. Students for their project work and supervising two numbers of Ph D Student, human resource development focusing future skill India.
II. Providing traning to graduate and post graduate studend through different projects while they assisting for the project work.
III. Power generation production cost of electricity has significantly reduced and the whole nation has been benefitted due to active participation of CSIR-CIMFR researchers in “quality coal for power”.