

Brief Bio-data

1. Name: DR. RAN VIJAY KUMAR SINGH

2. Date of Birth: 05.01.1963 (Fifth January Nineteen Sixty three)

3. Current Position and Address (Include Email ID and Contact Number) :

Chief Scientist & Coordinator
Project Planning & Industry Interface Division
CSIR-Central Institute of Mining & Fuel Research,
Barwa Road, Dhanbad, 826015, Jharkhand
E-mail: drvksingh@yahoo.com
Mobile: 09431723681

4. Educational qualifications: (Graduation and above)

| Sl. No. | Degree | Year of Passing | University/Institute | Subject |
|---------|----------------|-----------------|---------------------------------|----------------------------|
| 1. | B. Sc. (Hons.) | 1981 | Magadh University, Bodh-Gaya | Chem. (Hons.), Bot., Zool. |
| 2. | M.Sc. | 1984 | Gorakhpur University, Gorakhpur | Chemistry (Organic) |
| 3. | Ph.D. | 1987 | Magadh University, Bodh-Gaya | Chemistry |

5. Work experience:

| Designation | Institute/company | From | To | Nature of Work |
|-------------------------|---------------------|------------|------------|-------------------------------|
| Scientist B | CSIR-CIMFR, Dhanbad | 31.10.1989 | 30.10.1994 | R&D Work |
| Scientist C | CSIR-CIMFR, Dhanbad | 31.10.1994 | 30.10.1999 | R&D Work |
| Scientist EI | CSIR-CIMFR, Dhanbad | 31.10.1999 | 30.10.2003 | R&D Work |
| Scientist EII | CSIR-CIMFR, Dhanbad | 31.10.2003 | 30.10.2008 | R&D Work |
| Sr. Principal Scientist | CSIR-CIMFR, Dhanbad | 31.10.2008 | 30.10.2013 | R&D Work |
| Chief Scientist | CSIR-CIMFR, Dhanbad | 31.10.2013 | Continuing | R&D Work and Services (PP&II) |

6. Work Area(s)/ Specialization:

Research & Development (S&T Grant) Projects, R&D work on Mine safety due to fire, development of different chemical based products/Technology, comprehensive approach for prevention and control of mine fire and spontaneous heating for the benefit of coal Mining Industries, Network, Sponsored, Advisory Project work and Business Development & Industrial Liaison related work.

7. Major contributions: (Max. 100 words):

Fire in coal mining sector is a National problem and directly related to the Safety of human lives and loss of natural resource. I have carried out R&D work for development of Fire Protective Coating, endothermic chemicals, mechanized spraying device, additives, chemical inhibitors and comprehensive technology for prevention and control of fire in blasting gallery panels in underground and surface coal mines. I am also involved alongwith our team for implementation of suitable site specific different technology for control and combating fire in

coal mines since 1989. Presently, I am carrying out work in Project planning, Business Development & Industrial Liaison related work.

8. No. of Research Publications:

- Papers in Journals: 46
- In conference proceedings: 101
- Invited lectures delivered: 32
- List of best 05 publications:

| Sl. No. | Name of the authors | Title of the paper | Name of the Journal, Volume, year and page |
|---------|---|--|---|
| 1. | <u>R. V. K. Singh</u> | Spontaneous Heating and Fires in coal mines | Procedia Engineering, 62 (2013), 78-90 ELSEVIER, www.sciencedirect.com |
| 2. | <u>R. V. K. Singh</u> | Chemical inhibitors – challenging approach for control and combating spontaneous fire in coal mines | Journal Chemtracks, 14(2), 2012, P. 485- 492.(ISSN: 0973-239X) |
| 3. | <u>R.V.K.Singh</u> and S.C.Banerjee | Using inhibitors for preventing spontaneous fires in mines | Colliery Guardian, London (U.K.), July 1993, P. 145-147 |
| 4. | <u>R. V. K. Singh,</u> G. Sural and V. K. Singh | Safety management of open pit coal mines from occurrences of spontaneous heating/fire – case studies | Australasian Institute of Mining and Metallurgy Journal Publication Series, 2007, pp. 139-143 |
| 5. | A. K. Singh, <u>R. V. K. Singh</u> , M. P. Singh, Hemchandra and N. K. Shukla | Mine Fire indices and their application to Indian underground coal mine fires | International Journal of Coal Geology, Vol. 69, Issue 3, 1 February 2007, P. 192-204, ELSEVIER, www.sciencedirect.com |

- Books/Chapters authored/edited: 03

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

1. Development of suitable Fire protective coating for preventing spontaneous combustion in the benches of opencast coal mines (Project No. GAP/V/33) funded by Ministry Of Coal, Govt. of India **as Project Leader**
2. Development of handy method of coal categorisation and prediction of spontaneous fire risk in underground mines (Project No. GAP/1/Mine Fire/MOC/96) funded by Ministry of Coal, Govt. of India **as Project Leader**
3. Development of a mechanised spraying system for spraying fire protective coating material for industrial application in the benches of Large Opencast project (Project No. GAP/10/Mine Fire/MOC/97) funded by Ministry of Coal, Govt. of India **as Project Leader**
4. Study for early detection of occurrences of spontaneous heating in Blasting Gallery method and to evaluate suitable measures for preventing spontaneous heating in thick coal seam (Project No. GAP/25/MS/MOC/2000) funded by Ministry of Coal, Govt. of India **as Project Leader**
5. Clean Coal Technology (Tap Coal) under Chemical Science Cluster of 12th Five Year Plan Project by CSIR-CIMFR (CSC0102) Project Leader of Task WP-7

- 10. (a) Name of Patents/Copyrights applied /granted/commercialized: 02 (Patents)**
(b) Technologies/Products /knowhow/Services developed : 02

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

Honors & Awards

- National Mineral Award 2006 in the field of Mining Technology from Ministry of Mines, Govt. of India
- NRDC Technology Day Invention Award 1999 by a Government of India Enterprise, Ministry of Science & Technology, Govt. of India
- Bharat Jyoti Award -2011
- CSIR Technology Award – 2011 presented to CSIR-CIMFR Team for Developing Technology for extraction design of locked-up coal by High wall Mining in India in “Physical Sciences and Engineering”
- Award of Raman Research Fellowship 2001 from CSIR, New Delhi, Ministry of Science & Technology, Govt. of India
- CSIR Golden Jubilee CMRI Whitaker Annual Award 1995-96
- MGMI Bronze Medal 1997- 1998 from Mining Geological & Metallurgical Institute of India, Calcutta
- CSIR Technology Award – 2017 presented to CSIR-CIMFR Team for Business Development and Technology Marketing 2017 for “Significantly Enhancing the Business and Marketing of their Knowledgebase”
- Received National Merit Scholarship from 1977 to 1983
- CSIR JRF/SRF Fellowship from 1985 to 1988

Professional Membership:

- Fellow, Indian chemical Society,
- Associate member, Institution of Chemists (India),
- Life Member, Mining, Geological & Metallurgical Institute of India
- Life Member, Indian Science Congress Association and
- Life member, Journal Chemtrack
- Life Member, Vigyan Bharati

12. Societal Contributions : Development of different technology for prevention and control of fire in coal mines as per the need of mining Industries. Our national resource like valuable coal has been saved from fire and environmental pollution and also reduced after application of the suitable Technology as per site specific condition.