

**1. Name : Dr. Prakash Dhondiram Chavan**

2. Date of Birth : 10/07/1974

3. Current Position and Address: (with E-mail & Phone no.)  
Principal Scientist,  
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4. Educational qualifications: (Graduation and above)

Sl. No.	Degree/ Certificate	Year of Passing	University/ Institute	Subjects
i.	B. E. (Chemical)	1996	Shivaji University, Kolhapur	Chemical Engineering
ii.	Ph.D.	2013	ISM, Dhanbad	Studies on effect of coal properties & process parameters on gasification Kinetics

5. Work experience

	Designation	Institution/company	From	To	Nature of work
i.	Principal Scientist	CSIR-CIMFR, Dhanbad	01/03/20012	Till Date	R&D in the area of coal & biomass co-gasification in FBG
ii.	Senior Scientist	CSIR-CIMFR, Dhanbad	01/03/2008	29/02/2012	R&D in the area of coal gasification, Development of FBG
iii.	Scientist	CSIR-CIMFR,	01/03/2002	29/02/2008	R&D in the area of coal liquefaction & gasification
iv.	Shift In-charge	Harnil Techno Consultants, Nasik	Sept. 1999	Feb. 2002	Hazardous waste incineration

v. Process Engineer	Aryan Pesticides (Deepak Nitrite) Roha	Mar. 1999	Aug. 1999	Hydrogenation, fractional distillation
vi. Chemical Engineer	Diam Org. Chem. Ind. (P) Ltd, Mahad	Jan. 1997	Feb. 1999	Glycol Ethers

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6. Area of specialization : Energy: Resource and Technology  
Coal/biomass/petcoke gasification, Development of Fluidized  
Bed Gasifier, Gasification kinetics using TGA & TGR.

7. Honors/Awards received:

8. Fellowships/Scholarships:

9. No. of Research Publications:

- Papers in journals: 7
- In conference proceedings: 8
- Invited/key-note addresses:
- List of best 05 publications:

1. "Development of data-driven models for fluidized-bed coal gasification process", P.D. Chavan, T. Sharma, B.D. Kulkarni et al., Fuel, 93, March 2012, 44–51.
2. "Influence of High Ash Indian Coals in Fluidized Bed Gasification under Different Operating Conditions", P.D. Chavan, S. Datta, T. Sharma, et al., Solid Fuel Chemistry, 46 (2), 2012, 108–113.
3. "Gasification of High Ash Indian Coals in Fluidized Bed Gasifier and its Artificial Intelligence based Modeling" Veena Patil-Shinde, P.D. Chavan, S.S. Tambe, B.D. Kulkarni et al., Ind. Eng. Chem. Res., 53(49), 18678–18689, 2014.
4. "Modeling and simulation of gasification of Indian coal in bubbling fluidized bed gasifier using Eulerian Granular Approach" G. K. Singh, B. Mohanty, P. Mondal, P.D. Chavan, S. Datta, accepted in International Journal of Chemical Reactor Engineering, 2015.
5. Agglomeration behaviour of high ash Indian coals in fluidized bed Gasification pilot plant". S. Datta, P. Sarkar, S. Saha, G. Sahu, P.D. Chavan, A.K. Sinha and V.K. Saxena, International Journal of Applied Thermal Engineering, 86 (2015) 222-228.

10. Number of Books authored/edited: 1

11. (a) No. of Patents granted/applied for: Patents-2, Copyrights-1

(b) Technologies developed, Licensed and/or commercialized:

12. Foreign visits: Participated in the 9<sup>th</sup> European Conference on Coal Research and its Applications' (ECCRIA 9) held at University of Nottingham, UK from 9-13, September 2012 and visited IEA Coal Research Centre, London on 10<sup>th</sup> September 2012.

13. Details of Professional memberships:

Life Membership of Indian Institute of Mineral Engineers. Membership No. LM-1089

14. Major contributions: (Max. 150 words)

R&D activities in the area of coal/biomass gasification, coal to liquid direct and indirect route. Gasification kinetic studies for high ash Indian coals, various biomass using TGA/TGR Design, installation & commissioning of various pilot scale coal gasification and coal liquefaction R&D plants.

Experimentation in the test facilities like FBG, data interpretation, analysis & time to time modification in the system and optimization of the parameters to achieve desired goals. Setting up of laboratory scale gasification R&D facility (Thermo gravimetric Reactor) to study gasification reactivity & kinetics in different conditions. Data base and knowledge base generation on gasification reactivity and kinetics of high ash Indian coals, biomass, petcoke and their blends.

Installation, commissioning, operation & maintenance of hazardous waste incineration system, plants for Hydrogenation of chemical intermediates, fractional distillation of close boiling materials.

15. Technologies and Products/ Services

- (i) Developed:
- (ii) Licensed:
- (iii) Commercialized:

16. Designs and Prototype Developed:

Fluidized Bed Gasification Facility for coal, biomass gasification, Thermo-gravimetric Reactor for gasification reactivity and kinetic studies, Modular Continuous Reactor System for liquefaction of coal and up gradation of petroleum heavy fractions.

One copyright has been taken on design of fluidized bed gasification unit.

17. Honours and awards won for technological contributions or sociological impact of R&D:

Prakash D. Chavan  
Signature