

## Brief Bio-data

**1. Name:** Pavan Kumar Gupta

**2. Date of Birth:** 25/12/1991

**3. Current Position and Address (Include Email ID and Contact Number):** Scientist  
Gasification & Catalysis Research Group

CSIR-Central Institute of Mining & Fuel Research, Digwadih Campus, Dhanbad,  
Jharkhand 828108

E-mail: pavan@cimfr.nic.in, pkchehit@gmail.com

Phone: 0326-2388233, 9955335308

### **4. Educational qualifications: (Graduation and above)**

Sl. No.	Degree	Year of Passing	University/Institute	Subject
1.	B.Tech	2013	WBUT, HIT(Haldia)	Chemical Engineering
2.	M.Tech	2015	IIT-BHU	Chemical Engineering
3.	PhD	Enrolled: 2019	IIT ISM	Chemical Engineering

### **5. Work experience:**

Designation	Institute/company	From	To	Nature of Work
Scientist	CSIR-CIMFR	15/04/2016	Continue	Catalytic conversion of syngas to value added products

**6. Work Area(s)/ Specialization:** Heterogeneous Catalysis, Fischer-Tropsch, Gas-Solid Catalytic Reaction

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

Several experimental reactions have been carried out in 100 ml of fixed bed tubular reactor using commercial catalyst for optimization of reaction parameter (i.e. pressure, temperature, GHSV etc). The basic data generated from the experiment is useful in designing and development of 250 Kg Methanol/day "Syngas to Methanol" Pilot Plant as well as operation of the Pilot Plant. Remarkable contribution in preparation of technical specification of 250 Kg Methanol/day "Syngas to Methanol" Pilot Plant. Developed a method in flame ionization detector (FID) to detect the impurities present in methanol. Continuous work in finding availability of Rare Earth Metals in the Indian coal and coal ash (fly ash & bottom ash) which is used in different Thermal power stations.

**8. No. of Research Publications: 08**

- Papers in Journals: 08
- In conference proceedings: 02
- Invited lectures delivered: Nil
- List of best 05 publications

i. Coal Fly Ash (CFA) derived mesoporous SBA-15 as support material for production of liquid hydrocarbon through Fischer-Tropsch route, **Pavan K. Gupta**, Abhishek Mahato,

Pikkoo Oraon, Goutam Kishore Gupta and Sudip Maity, Asia-Pacific Journal of Chemical Engineering, DOI: 10.1002/apj.2471

ii. Renewable fuels from different carbonaceous feedstocks: A sustainable route through Fischer-Tropsch synthesis, **Pavan K Gupta**, Vineet Kumar, Sudip Maity, journal of chemical technology & biotechnology, DOI: 10.1002/jctb.6644

iii. Fischer–Tropsch synthesis over Pd promoted cobalt based mesoporous supported catalyst, **Pavan Kumar Gupta**, Abhishek Mahato, Goutam Kishore Gupta, Gajanan Sahu, and Sudip Maity, Oil & Gas Science and Technology – Rev. IFP Energies nouvelles, DOI: 10.2516/ogst/2021002

iv. Synthesis of middle distillate through Low Temperature Fischer-Tropsch (LTFT) reaction over mesoporous SDA supported cobalt catalysts using syngas equivalent to coal gasification, Sandip Mandal, Sudip Maity, **Pavan Kumar Gupta**, Abhishek Mahato, Piyali Bhanja, Gajanan Sahu, Applied Catalysis A: General, DOI: 10.1016/j.apcata.2018.03.004

v. Experimental process parameters optimization and in-depth product characterizations for teak sawdust pyrolysis, Goutam Kishore Gupta, **Pavan K. Gupta**, Monoj Kumar Mondal, Waste Management, DOI:10.1016/j.wasman.2019.02.035

- **Books/Chapters authored/edited:** Nil

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

i. Development of Indigenous Catalyst through Pilot Scales Study of Coal-to-Liquid Conversion Technology, GAP Project (**Role: Team member**)

ii. Development of catalyst for synthesis of methanol from syngas, MLP Project (**Role: PI**)

iii. Development of Co-Fe based bimetallic supported catalyst for Coal-to-Liquid in the Pilot Plant, MLP Project (**Role: CO-PI**)

iv. A Study to Explore the Potentiality of Using Coal Fly Ash (CFA) derived from Indian Thermal Power Plants as a resource of Rare Earth Elements (REEs), GAP Project (**Role: CO-PI**)

v. Coal-Syngas to Methanol (CoSynol), CSIR- Mission Mode Project (**Role: Team Member**)

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

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

#### **11.Honors/Awards/Recognitions/Fellowships/Scholarships/Professional**

**Memberships received:** Life member of Mining Engineer’s Association of India (MEAI)

#### **12. Societal Contributions**

For industrial approach and excellence, I have guided B. tech students in completion of their internship. Demonstrated the CSIR-CIMFR activities in India International Science Festival (IISF), the largest festival of science with its focus on “Science for the Masses” at CSIR-NPL (2016), Anna University, Chennai (2017), Indira Gandhi Prathishtan, Lucknow (2018) and Science city, Kolkata (2019).