

## Brief Bio-data

**1. Name:** Shiva Kumar Saw

**2. Date of Birth:** 12<sup>th</sup> March 1987

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

Technical Assistant, Gr.III/1  
Gasification & Catalysis Research Group  
CSIR-CIMFR, Digwadih Campus, Dhanbad-828108, Jharkhand  
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Phone: 0326-2388233, 7205685844

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

Sl. No.	Degree	Year of Passing	University/Institute	Subject
01	M.Sc	2009	V.B.U Hazaribag	Organic Chemistry
02	B.Sc (H)	2007	V.B.U Hazaribag	Chemistry

**5. Work experience:**

Designation	Institute/company	From	To	Nature of Work
Technical Assistant	CSIR-CIMFR, Dhanbad	23 <sup>rd</sup> Aug 2019	Cont.	To analyse the gas samples of PFBG, Bench scale FBR & methanol samples, Analytical lab work
Jr. Engineer	TATA STEEL Ltd, Kalinganagar	03 <sup>rd</sup> Nov 2014	17 <sup>th</sup> Aug 2019	Analytical Lab. Work related to Steel & Iron production
Jr. Engineer	Hindalco Indust. Ltd, Hirakud	13 <sup>th</sup> June 2013	15 <sup>th</sup> Oct 2014	Analytical Lab. Work related to Oil, Emulsion, water, Metal

**6. Work Area(s)/ Specialization:** Handling of analytical instruments i.e. Gas Chromatograph (GC), BET, TPR/TPD/TPO etc. synthesis of heterogeneous catalyst for catalytic conversion of syngas to liquid products

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

- Performed a deliberated various experiments in bench scale fixed bed tubular reactor (FBTR) for catalytic conversion of syngas to value added product in the set of pressure 40bar, 50bar, 60bar, 70bar in 200°C, 220°C, 240°C for the purpose of optimizing the reaction parameter. The basic data generated from this experiment will be helpful to operate the Pilot Plant.

- Assisted during preparation of technical specification of 250 kg day<sup>-1</sup> Syngas to Methanol Pilot Plant as well as remarkable contribution in the preparation of Technical specification of fixed bed tubular micro-reactor
- Synthesized Cu based Methanol catalyst and activity has been evaluated in fixed bed tubular reactor.
- Analysis of gaseous samples obtained from 1.5 TPD PFBG plant and 100 ml fixed bed tubular reactor.
- Method development for the analysis of gaseous samples and liquid samples (methanol) in gas chromatography.

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

- Papers in Journals: Nil
- In conference proceedings: Nil
- Invited lectures delivered: Nil
- List of best 05 publications: Nil
- Books/Chapters authored/edited: Nil

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

- Coal-Syngas to Methanol (CoSynol), CSIR- Mission Mode Project, HCP-32/2021, (Role: Team Member)
- Development of Indegenious catalyst for synthesis of Methanol from syngas, MLP project (Role: Team Member)
- Ash Characterization with respect to operational aspect in different types of gasifier” MLP-138/2020-21, (Role: Team Member)
- Scientific study on Quality Monitoring of Iron ore at dispatch points of Donimalai Complex Iron Ore Mines of NMDC, SSP-8450/2020-21 (Role: Team Member)
- Scientific study on quality monitoring of Iron ore at dispatch points of Donimalai Complex Iron Ore Mines of NMDC, SSP- 8597/2021-22 (Role: Team Member)

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

- 11. Honors/Awards/Recognitions/Fellowships/Scholarships/Professional Memberships received:** Best kaizen award in Hindalco Industries Ltd and TATA steel Ltd

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

Delivered the brief knowledge about the basics of catalyst and catalysis reaction. Also share the knowledge of ongoing departmental activities i.e. solid – gas catalytic reaction in fixed bed tubular reactor, and analysis of gaseous/liquid samples in gas chromatograph to M. Sc students during their internship.