

# Faculty Profile

1. Name: SUNIL KUMAR CHAUDHARY

2. Department: Mechanical Engineering

3. Email id: skchaudhary.me@bitsindri.ac.in



4. Phone Number: +91-9939579728

5. Office Address: Department of mechanical Engineering, B.I.T Sindri, Dhanbad-828123(Jharkhand)

6. Qualification:

S. No	Degree(UG, PG, PhD)	Specialization	Institute	Year
1.	PhD	Mechanical Engineering	IIT(ISM), Dhanbad	2019
2.	M. Tech	Manufacturing Engineering	NIFFT, Ranchi	2002
3.	B. Sc. Engg.	Mechanical Engineering	B.I.T. Sindri	1998

7. Area of Specialization: Manufacturing Engineering, carbon nanotubes, nano-composites, polymer composites

8. PhD (Guided): 02 (in progress)/**M.Tech-06**

9. Subjects Taught:

I) UG: - Manufacturing Process-I, Manufacturing Process-II, Strength of Materials, Mechanics of solids-II, Fluid Machine, Solid Mechanics

II) PG: - Fracture Mechanics, Advanced Mechanics of Solids, Advanced Stress analysis

10. Professional Experience:

I) Teaching Experience:

Sl. No.	Position held	Name of Organization	from	to
1	Assistant Professor	B.I.T Sindri	11/09/2006	Till date
2	Lecturer	MACET, Patna	13/04/2003	01/09/2006

II) Research Experience:

Sl. No.	Position held	Name of Organization	from	to
1	Graduate Apprentice	LPSC/ISRO	12/04/1999	11/04/2000

III) Industrial Experience: NA

Sl. No.	Position held	Name of Organization	from	to

11. Publications:

I)International Journal:

Sl. No.	Title of the paper	Name of the journal in which publication has been made	Vol/No	Publication Year	Pages
1.	Ultrasonic behavior of plastically deform and heat treated Steel.	<i>Trans. Indian Inst. Metal. (SCIE)Q2, Springer</i>	Vol.61 No.2	2008	217-220
2.	Experimental and numerical analysis of different aerodynamic properties of circular cylinder	<i>International Research Journal of Engineering and Technology</i>	Vol. 3	2016	1112-1117
3.	Experimental and finite element analysis of flexural strength of glass fiber reinforced polymer composite laminate	<i>Journal of Material science and mechanical engineering (JMSME)</i>	Vol. 3	2016	50-53
4.	Bulk synthesis of multi-walled carbon nanotubes by AC arc discharge method	<i>Proceedings of Institution of Mechanical Engineers, Part N: Journal of Nanomaterials, Nanoengineering and Nanosystems (ESCI), SAGE</i>	Vol. 231	2017	141-151

5.	Effect of using carbon nanotubes on ILSS of glass fiber reinforced polymer laminates	<i>Transaction of Indian Institute of Metals (SCIE)Q2, Springer</i>	Vol. 71	2018	3029-3036
6.	Experimental and numerical analysis of flexural test of unfilled glass fiber reinforced polymer composite laminate	<i>Materials Today: Proceedings (Scopus), Elsevier</i>	Vol. 5	2018	184-192
7.	Study about characterization of CNTs through electron microscopy and Raman spectroscopy	<i>IOP Conference Series: Materials Science and Engineering</i>	Vol. 377	2018	1-6
8.	Enhancement of flexural strength of glass fiber reinforced polymer laminates using multiwall carbon nanotubes	<i>Polymer Engineering and Science (SCI)Q2, Wiley</i>	Vol.59	2019	E248-E261
9.	Failure analysis of rear axle shaft of a heavy vehicle	<i>Materials Today: Proceedings (Scopus), Elsevier</i>	Vol.38	2021	2235-2240
10.	Complex Phenomenal Growth of Multi-walled Carbon nanotubes in conventional Arc Discharge Process	<i>Transaction of Indian Institute of Metals (SCIE)Q2, Springer</i>	Vol. 74	2021	2043-2048
11.	Thermal analysis of multi-walled carbon nanotubes doped glass fiber reinforced polymer composites	<i>IOP Conference Series: Materials Science and Engineering</i>	Vol. 1170	2021	1-6
12.	Effect of heat treatment on mechanical properties of medium carbon steel welds	<i>Materials Today: Proceedings (Scopus), Elsevier</i>	Vol. 56	2022	964-970
13.	On the dispersion and experimental investigation on transverse tensile low-cycle-fatigue behavior of GFRP nanocomposites filled with CNTs and GNPs	<i>International journal of fatigue (SCI)Q1, Elsevier</i>	<a href="https://doi.org/10.1016/j.ijfatigue.2022.107366">https://doi.org/10.1016/j.ijfatigue.2022.107366</a>	2022	

14.	Enhancement of solar still productivity: An Experimental approach	<i>Advances in science and engineering technology International conference (ASET), IEEE Xplore</i>	<a href="https://doi.org/10.1109/AS-ET5658.2023.10180550">https://doi.org/10.1109/AS-ET5658.2023.10180550</a>	2023	
15.	Influence of multi-walled carbon nanotubes on mechanical characteristics of glass fiber reinforced polymer composites: An experimental and analytical approach	<i>SPE Polymers (SCIE), Wiley</i>	<a href="https://doi.org/10.1002/pls.2.10131">https://doi.org/10.1002/pls.2.10131</a>	2024	

II) International Conference:

Sl. No.	Title of the paper	Name of the Conference in which publication has been made	Vol/No.	Publication Year	Pages
1.	Synthesis of CNTs by arcing process without catalyst	International conference on processing and fabrication of advance materials XXIII, IIT Roorkee	Vol. 27	2015	274-278
2.	Experimental and numerical analysis of flexural test of unfilled glass fiber reinforced polymer composite laminate	International conference on processing of materials, minerals and energy		2016	490-498
3.	Study about characterization of CNTs through electron microscopy and Raman spectroscopy	1 <sup>st</sup> International conference on mechanical, materials and renewable energy		2017	92
4.	Effect of heat treatment on steel welds: A Review	International conference on advances and soft computing applications in Design and		2018	293-301

		Manufacturing, NIT Patna			
5.	Improvement in Tribological wear behavior by addition of 0.2% Sc in Al-Mg-Sc alloys	International conference on advances and soft computing applications in Design and Manufacturing, NIT Patna		2018	307-313
6.	Effect of adding multiwalled carbon nanotubes at the weld joint in friction stir welding of aluminum alloy	IISTEM International conference, Nagpur		2022	27-32
7.	Production of multi-walled carbon nanotubes by ac arc discharge in air	3 <sup>rd</sup> International conference on emerging trends in traditional and technical textiles		2023	

III) National Journal:

Sl. No.	Title of the paper	Name of the journal in which publication has been made	Vol/No.	Publication Year	Pages
---------	--------------------	--	---------	------------------	-------

IV) National Conference :

Sl. No.	Title of the paper	Name of the Conference in which publication has been made	Vol/No.	Publication Year	Pages
1.	A comparative study of levelized cost of power generation among thermal power, wind power and nuclear power	National seminar on Energy and environment for sustainability		2013	161-163
2.	Effect of metallurgical waste on environment and their remedies	National seminar on Energy and environment for sustainability		2013	54-59

12. Patents (Filed / Granted)

S. No.	Name of the Inventor	Title of the Invention	Application / Patent No. (As applicable)	Year	Status (Filed / Granted)

13. Conference/ Workshop/Seminar/ Organized

Sl.	Title of	Name of	Funding /	Date of Seminar /	No. of
-----	----------	---------	-----------	-------------------	--------

No.	Seminar / Conferences / Short – term Courses	Coordinator	Sponsoring Agency	Conferences / Short – term Courses	Participants
1.	Workshop on “Advancement in Mechanical Engineering”	Anish Kumar & Prabhakar	TEQIP	December 15-19, 2020	

14. Symposium/ Workshop/Seminar/ Attended

Sl. No.	Title of Symposium/ Workshop/Seminar/ Short – term Courses	Date	Organizing Institute
1.	Developing Personal & professional effectiveness	16 <sup>th</sup> - 24 <sup>th</sup> Dec, 2006	XLRI, Jamshedpur
2.	Modern Experimental Techniques in Mechanics of Fluids & Solids	07 <sup>th</sup> - 11 <sup>th</sup> May 2007	IIT, Kanpur
3.	National Workshop on industry Institute Interaction	13 <sup>th</sup> -14 <sup>th</sup> July 2007	B. I.T. Sindri
4.	Pedagogy	14 <sup>th</sup> - 19 <sup>th</sup> Oct 2008	B.I.T.Sindri
5.	Pedagogical Training in Engineering Education	9 <sup>th</sup> -21 <sup>st</sup> Feb 2009	ESCI, Hyderabad
6.	Mechanics of Fracture	19 <sup>th</sup> -24 <sup>th</sup> March 2010	IIT, Kanpur
7.	Improving teaching competency for 21 <sup>st</sup> century learners	19 <sup>th</sup> - 30 <sup>th</sup> Dec 2011	NITTTR, Kolkata
8.	National Seminar on Indian Nuclear Power Programme: Challenges and Opportunities	April’ 14- 15, 2012	B. I.T. Sindri
9.	National Seminar on Energy and environment for sustainability	16 <sup>th</sup> -17 <sup>th</sup> March, 2013	B. I.T. Sindri
10.	National workshop on Intellectual property rights	Oct’26, 2013	B. I.T. Sindri
11.	Composite Materials: Research and Development	21 <sup>st</sup> -25 <sup>th</sup> September 2015	I.S.M. Dhanbad
12.	Personality Development	26 <sup>th</sup> Oct - 6 <sup>th</sup> Nov, 2015	B.I.T. Sindri
13.	ICT Skills for Teachers		B.I.T. Sindri

		19 <sup>th</sup> -24 <sup>th</sup> June 2017	
14.	Workshop on Recent advances in Manufacturing (RAIM-2018)	27 <sup>th</sup> Nov - 01 <sup>st</sup> Dec, 2018	B. I.T. Sindri
15.	Digital Transformation in Teaching Learning Process	6 <sup>th</sup> -22 <sup>nd</sup> April 2020	SCMS School of Engineering and Technology, Ernakulum, Kerala (India)
16.	FDP for Engineering College on Virtual Labs	29 <sup>th</sup> June 2020	B. I. T. Sindri and NIT Surathkal, Karnataka
17.	FDP on Free Open Source Tools for Education and Research	7 <sup>th</sup> July 2020	B. I. T. Sindri and IIT, Bombay
18.	FDP on Recent advances in heat transfer and its applications	13 <sup>th</sup> -17 <sup>th</sup> July 2020	B. M. S. College of Engineering, Bengaluru, Karnataka
19.	FDP on MATLAB for Mechanical Engineers	20 <sup>th</sup> -24 <sup>th</sup> July 2020	B. M. S. College of Engineering, Bengaluru, Karnataka
20.	STTP on Recent advances in Materials and Manufacturing: Part 1	3 <sup>rd</sup> -8 <sup>th</sup> August 2020	Gayatri Vidya Parisad College of Engineering, Madhurawada. Visakhapatnam
21.	STTP on Nanotechnology and Functional Materials (Phase-II)	17 <sup>th</sup> – 22 <sup>nd</sup> August 2020	S V College of Engineering, Tirupati
22.	Essentials for NX Designers	11 <sup>th</sup> -17 <sup>th</sup> June 2020	B.I.T. Sindri
23.	SWAYAM on line course on Academic and Research Report writing	20 <sup>th</sup> July2020- 12 <sup>th</sup> Oct 2020 (12	NITTTR,Kolkata

		<b>weeks)</b>	
24.	FDP on FRP Composites	18 <sup>th</sup> – 22 <sup>nd</sup> January 2021	L D College of Engineering, Ahmedabad
25.	Executive Program on Mindful leadership	1 <sup>st</sup> -5 <sup>th</sup> February 2021	IIM Bodh Gaya
26.	FDP on 3D Printing & Design	15 <sup>th</sup> – 19 <sup>th</sup> February 2021	VNRVJIET, Hyderabad
27.	FDP on Mechanical Engineering-Emerging Technologies	24 <sup>th</sup> -29 <sup>th</sup> May 2021	B. I. T. sindri
28.	Advances in Manufacturing	15 <sup>th</sup> -19 <sup>th</sup> June 2021	B. I. T. sindri

15. **Expert Talk:** i) Recent advances in manufacturing (RAIM-2018) organized by department of Mechanical Engineering in collaboration with Siemens, COE and sponsored by TEQIP-III during Nov 27 to Dec 01, 2018 at B. I. T, Sindri

16. Administrative Position Held:

<b>S. No.</b>	<b>Position Held</b>	<b>From (date/month/year)</b>
1.	Prof. In charge, canteen	02/07/13 – 21/03/17
2.	Asst. Prof. In charge, Store	16/10/17-23/06/21
3.	Training & Placement officer-1	24/01/17-
4	SC & ST welfare Committee member	05/01/19 to till date
5.	Asst. Prof. In charge, nano Technology Centre	28/09/2020 to till date
6.	Prof. In charge, MOS Lab	17/02/2020 to till date
7.	Ph. D Coordinator	09/12/2021 to till date

**17. Award / Recognition Bestowed on Faculty (State / National / International)**

1. Got 2<sup>nd</sup> prize in International conference held at IIT Kanpur on METALLO 2007 during 7<sup>th</sup> to 10<sup>th</sup> December, 2007.
2. Got best paper award in Ist International conference on Mechanical, Materials and Renewable energy (ICMMRE), 2017 held at Sikkim Manipal Institute of Technology, Majitar, Sikkim.
3. “Quarterly Franklin Membership”, Membership ID # ND43778; Given by Editorial Board of London Journal Press (2018)

**18. Members of Professional Bodies:**

1. Associate member of the Institute of Engineers (India)
2. Life member of Indian Society for Technical Education