Curriculum Vitae

1. **Name and address for correspondence :**
   Name : Dr. Tarun Kumar Naiya
   Full correspondence address : Department of Petroleum Engineering, IIT (ISM), Dhanbad
   Dist : Dhanbad, Pin : 826004, Jharkhand, India

2. Designation : Assistant Professor

3. Email Id 1 : trn2711@yahoo.com Email Id 2 : tarunnaiya@iitism.ac.in

4. Landline No. : 0326 223 5879 Mobile No. : 9471191367

5. Institution : Indian Institute of Technology (Indian School of Mines) Dhanbad

6. Date of Birth : 27/11/1974

7. Gender (M/F/T) : M

8. Category Gen/SC/ST/OBC : SC

9. Whether differently abled (Yes/No) : No

10. **Specialization** (*Area of interest, up to 5*): Petroleum Production Engineering, Enhanced Oil Recovery, Flow Assurance problems like Oilfield Scale, Wax deposition, corrosion, Water Pollution, Adsorption etc.

11. Academic Qualification (Undergraduate Onwards)

Sl. No.	Degree	Year	Subject	University/Institution	% of marks
1	B. Sc.	1997	Chemistry HONS	University of Calcutta	56
2	B. Tech.	2000	Chemical Engg.	University of Calcutta	69.23
3	M. Tech.	2003	Chemical Engg.	University of Calcutta	69.33
4.	Ph. D.	2010	Chemical Engg.	University of Calcutta	Awarded

12. Ph. D thesis title, Guide's Name, Institute/Organization/University, Year of Award.

Ph.D thesis title	Guide's Name	Institute/Organization/University	Year of Award
Studies on the Removal of Heavy Metals Using Natural and Chemical Adsorbents.	Prof. S. K. Das	University of Calcutta	2010

13. **Work experience** :

S.No.	Designation	Name of the Institute/Organization	From Month-year From	To Month-year To	Responsibility
1.	Lecturer	Durgapur Institute of Advanced Technology and Management, Rjabandh, Durgapur	01.07.2008	06.04.2010	Teaching
2.	Guest Lecturer	University of Calcutta	January, 2009	April, 2010	Teaching
3.	Assistant Professor	Indian School of Mines, Dhanbad	07.04.2010	Till Date	Teaching and research

14. Professional Recognition/ Award/ Prize/ Certificate, Fellowship received by the applicant.

S.No	Name of Award	Awarding Agency	Year
1	CSIR Fellowship	CSIR - India	**April, 2006 – June, 2008**

15. List of Publications with Impact Factor and Citation (International Journals)

Sl. No.	Name of SCI Journal	Volume No.	Month/ Year/Page Nos.	Authors	Title of the paper	Impact Factor	No. of citation upto 30.05.2018
1	Chemical Engineering Journal	137(3)	(2008) 529-541	Bhattacharya, A. K., **T. K. Naiya,** S. N. Mandal and S. K. Das	Adsorption, Kinetics and Equilibrium studies on removal of Cr(VI) from aqueous solutions using different low-cost adsorbents	**6.216**	**540**
2	*Environmental Progress*	27	(2008) 313-328	**Naiya, T. K.,** A. K. Bhattacharya and S. K. Das	Adsorption of Pb(II) by saw dust and neem bark from aqueous solutions	**1.672**	57
3	*Journal of Colloid and Interface Science*	325	(2008) 48-56	**Naiya, T. K.,** A. K. Bhattacharya and S. K. Das	Removal of Cd(II) from aqueous solutions using clarified sludge	**4.233**	86
4	*Journal of Hazerdous Material*	163	(2009) 1254-1264	**Naiya, T. K.,** A. K. Bhattacharya, S. N. Mandal and S. K. Das	The sorption of Lead(II) ions on rice husk ash	**6.065**	**273**
5	Chemical Engineering Journal	148	(2009) 68-79	**Naiya, T. K.,** P. Chowdhury, A. K. Bhattacharya and S. K. Das	Saw dust and neem bark as low cost natural biosorbent for adsorptive removal of Zn(II) and Cd(II) ions from aqueous solutions	**6.216**	**222**
6	*Journal of Colloid and Interface Science*	333	(2009) 14-26	**Naiya, T. K.,** A. K. Bhattacharya and S. K. Das	Adsorption of Cd(II) and Pb(II) from aqueous solutions on activated alumina	**4.233**	**334**
7	*Environmental Progress and Substainable Energy*	28	(2009) 535-546	**Naiya, T. K.,** A. K. Bhattacharya and S. K. Das	Adsorptive removal of Cd(II) ions from aqueous solutions by rice husk ash	**1.672**	**37**
8	*Journal of Hazerdous Material*	170	(2009) 252-262	**Naiya, T. K.,** A. K. Bhattacharya and S. K. Das	Clarified Sludge (basic oxygen furnace sludge) – An adsorbent for removal of Pb(II) from aqueous solutions – kinetics, thermodynamics and desorption studies	**6.065**	**66**
9	***Adsorption***	***15***	***(2009) 354-364***	**Naiya, T. K.,** A. K. Bhattacharya, D. Sarkar and S. K. Das	Applicability of shrinking core model on the adsorption of heavy metals by clarified sludge from aqueous solution	**2.074**	**6**
10	Petroleum Science and Technology	33 (7)	***(2015)*** 819-826	S Banerjee, R Kumar, A Mandal, TK Naiya	Use of a novel natural surfactant for improving flowability of indian heavy crude oil	**0.655**	**10**
11	Petroleum Science and Technology	33 (Issue 10)	(2015) 1101-1109	Kumar, R., Banerjee, S., Kumar, N., Mandal, A., T. K. Naiya	Comparative Studies on Synthetic and Naturally Extracted Surfactant	**0.655**	**1**

					for Improving Rheology of Heavy Crude Oil		
12.	Petroleum Science and Technology	33 (15-16)	(2015) 1516-1525	S Banerjee, R Kumar, A Mandal, TK Naiya	Effect of Natural and Synthetic Surfactant on the Rheology of Light Crude Oil	**0.655**	
13.	Indian Journal of Chemical Technology	23 (4)	(2016) 262-270	R Kumar, S Banerjee, A Mandal, TK Naiya	Improvement in transportability of Indian heavy crude oil using novel surfactant	***0.568***	
14.	Desalination and Water Treatment	57 (13)	(2016) 5800-5809	TK Naiya, SK Das	Removal of Cr (VI) from aqueous solution using fly ash of different sources	**1.631**	
15.	International Journal of Oil, Gas and Coal Technology	13 (3)	(2016) 260-276	S Banerjee, R Kumar, I Ansari, A Mandal, TK Naiya	Effect of extracted natural surfactant on flow behaviour of heavy crude oil	**0.582**	
16.	Journal of Petroleum Science and Engineering	152	(2017) 353-360	R Kumar, S Banerjee, A Mandal, **TK Naiya**	Flow improvement of heavy crude oil through pipelines using surfactant extracted from soapnuts	**1.873**	
17.	Petroleum Science and Technology	35 (24)	(2017) 2287-2295	M Gudala, S Banerjee, A Kumar, RM Rao T, A Mandal, **TK Naiya**	Rheological modeling and drag reduction studies of Indian heavy crude oil in presence of novel surfactant	**0.655**	
18.	International Journal of Oil, Gas and Coal Technology	14 (4)	(2017) 354-368	R Kumar, S Banerjee, A Mandal, **TK Naiya**	Investigation of novel extracted surfactant on rheological properties of heavy crude oil	**0.582**	
19.	Petroleum Science and Technology	35 (6)	(2017) 561-569	S Banerjee, R Kumar, A Akhtar, R Bairagi, A Mandal, **TK Naiya**	Effect of pour point depressant on wax deposition and drag reduction in horizontal pipelines	**0.655**	

20.	International Journal of Oil, Gas and Coal Technology	15 (4)	(2017) 363-379	S Banerjee, S Kumar, A Mandal, **TK Naiya**	Design of novel chemical solvent for treatment of waxy crude	**0.582**	
21.	Petroleum Science and Technology	35 (6)	(2017) 615-624	R Kumar, S Banerjee, A Banik, TK Bandyopadhyay, **TK Naiya**	Simulation of single phase non-Newtonian flow characteristics of heavy crude oil through horizontal pipelines	**0.655**	
22.	Petroleum Science and Technology	36	(2018) 99-107	M Gudala, S Banerjee, RM Rao T, **T K Naiya**, A Mandal	The effect of bio additive on viscosity and energy requirement for heavy crude oil flow	**0.655**	
23.	Journal of Petroleum Science and Engineering	152	(2017) 353-360	R Kumar, S Banerjee, A Mandal, **TK Naiya**	Flow improvement of heavy crude oil through pipelines using surfactant extracted from soapnuts	**1.873**	
24.	Journal of Petroleum Science and Engineering	168	(2018) 178 – 189	R Kumar, GS Bora, S Banerjee, A Mandal, **T K Naiya**	Application of naturally extracted surfactant from Madhuca longifolia to improve the flow properties of heavy crude oil through horizontal pipeline	**1.873**	
25.	Journal of Fluids Engineering	140 (6)	(2018) 061302	M Gudala, S Banerjee, R Kumar, T R M Rao, A Mandal, **T K Naiya**	Experimental Investigation on Hydrodynamics of Two-Phase Crude Oil Flow in Horizontal Pipe With Novel Surfactant	**1.437**	
26.	Journal of Petroleum Science and Engineering	169	(2018) 428-444	Sanjiv Kumar, **Tarun Kumar Naiya**, Tarkeshwar Kumar	Developments in oilfield scale handling towards green technology-A review	**1.873**	
27.	***International Journal of Oil, Gas and Coal Technology***			Vivek Raipuria, Nisha Rani, V. P. Sharma, **Tarun Kumar Naiya**	Use of nanoparticle derived from natural source and its application in drilling fluid	**0.582**	*Accepted*

***Dr. Tarun Kumar Naiya is the Corresponding Author of all the Paper Except Serial No. (1-9) and 14.**

16. Detail of patents : NIL]

S.No	Patent Title	Name of Applicant(s)	Patent No.	Award Date	Agency/Country	Status

17. Books/Reports/Chapters/General articles etc. : NIL

S.No	Title	Author's Name	Publisher	Year of Publication

18. List of Completed Sponsored Projects as PI. *:*

Sponsored Project						
Sl. No.	Title	From Date (Month -Year)	To Date (Month-Year)	Funding aGENCY	Amount (Lakhs)	Outcome
1.	Studies on Characteristics of Paraffinic Crude Oil Through a Complex Flow Loop	2011	2013	ISM	1.0	Major understanding on the deposition of wax in pipeline and its remediation process
2.	Studies on Multiphase Flow of Oil, Water and Gas in Horizontal and Vertical Pipes	2013	2016	ISM	8.50	Major understanding on the pressure drop during the flow of heavy crude oil through pipeline. Two natural surfactants were developed to mitigate the problem during flow of heavy crude oil.
3.	Experimental and Modelling of Flow of Paraffinic Crude Oil Through a Complex Flow Loop	2013	2016	UGC	13.78	Detailed studies on the Flow of Paraffinic crude oil through pipeline. Pour point depressants synthesised in our laboratory were used to study the improved in flow behaviour of waxy crude oil.

19. List of Currently Operated Sponsored Projects as PI :

Sl. No.	Title	Sponsor	Amount (Rs.)	From Date (Month-Year)	To Date (Month-Year)	Major Outcome
1.	FIST Project	DST	160 Lakhs	2013	2017	Development of student by providing the modern practical facility to the UG and PG Students
2.	Extraction of Pour Point Depressants from Fruits and Its use for Crude Oil Transportation	DST	33.39 Lakhs	2017	2020	Development of Pour point depressant from natural sources like fruit, leaf and studies its usefulness in real field.

20. Special Achievements of Dr. Tarun Kumar Naiya

1. "Outstanding Scientist in Chemical Engineering (Discipline - Engineering)" of the Venus International Research Awards – VIRA 2018.

2. Most Cited Chemical Engineering Journal Articles Published Since 2007, Sl. No. 3 and Since 2008 Sl. No. 5: A.K Bhattacharya,. **Naiya, T.K.,** S.N. Mandal, S.K. Das, Adsorption, kinetics and equilibrium studies on removal of Cr(VI) from aqueous solutions using different low-cost adsorbents**,** *Chemical Engineering Journal*, **137(3)** 529-541 (2008).

3. Most Cited Journal of Colloid and Interface Science Articles Published Since 2007, **Sl. No. 19 and Since 2008 Sl. No. 9**: T.K. Naiya, A. K Bhattacharya,. S.K. Das, Adsorption of Cd(II) and Pb(II) ions from aqueous solutions, *Journal of Colloid and Interface Science, 333 14-26* (2009).

4. Vical Award – 1st Prize Comparative study on adsorption of phenol by natural and synthetic adsorbents, A. Banerjee, **T. K. Naiya** and S. K. Das, SCHEMCON 2006, Anantapur, 2006.

5. Best Paper Presentation award in the Technical Session – Chemical Engineering - I : **T. K. Naiya,** S. N. Mandal, B. Singha, A. K. Bhattacharya and S. K. Das, Adsorption of Cd(II) and Pb(II) onto clarified sludge – kinetics, thermodynamics, desorption and application study, GMSARN International Conference on Sustainable development : Issues and Prospects for the Greater Mekong Subregion, 12-14 November 2008 at Kunming, China, 12-14 Nov. 2008.

6. Top 25 Hottest Articles – January – March 2008 in Chemical Engineering Journal, **Sl N0. 17** : A.K Bhattacharya, **Naiya, T.K.,** S.N. Mandal, S.K. Das, Adsorption, kinetics and equilibrium studies on removal of Cr(VI) from aqueous solutions using different low-cost adsorbents**,** *Chemical Engineering Journal*, **137(3)** 529-541 (2008).

7. Top 25 Hottest Articles – April - July 2008 in Chemical Engineering Journal, **Sl N0. 25** : A.K Bhattacharya,.; **Naiya, T.K.,** S.N. Mandal, S.K. Das, Adsorption, kinetics and equilibrium studies on removal of Cr(VI) from aqueous solutions using different low-cost adsorbents, *Chemical Engineering Journal*, **137(3)** 529-541 (2008).

8. Top 25 Hottest Articles – January – March 2009 in Chemical Engineering Journal, **Sl N0. 15** : **T. K. Naiya,** P. Chowdhury, A.K Bhattacharya and S.K. Das, Saw dust and neem bark as low-cost natural biosorbent for adsorptive removal of Zn(II) and Cd(II) ions from aqueous solutions, Chem*ical Engineering Journal*, **147(2-3)** 245-251 (2009).

9. Top 50 most Cited Articles - Journal of Colloid and Interface Science (2008-2009), Sl. No. 6 : T. K. Naiya, A. K Bhattacharya and S. K. Das, **Adsorption of Cd(II) and Pb(II) from aqueous solutions on activated alumina**, *Journal of Colloid and Interface Science*, **333** 14-26 (2009).