

CURRICULUM VITAE

ADARSH KUMAR ARYA

Email ID: adarsharya79@gmail.com

Mo. No. +91-9927741369



PROFILE SNAPSHOT

- A competent professional with nearly 16 years of experience in Research and Development / Teaching chemical engineering graduates and postgraduates.
- Exercises judgment within generally defined practices in selecting methods & techniques for obtaining teaching solutions; ensuring compliance to quality measures and maintenance requisite documentation as well as records
- Skills in managing the administrative activities entailing student management, faculty appraisal/training and upholding of the institution's motto
- Proficiency in **teaching Oil and Gas Pipeline and core chemical engineering subjects** to Chemical Engineering Graduate and post graduate students.
- Experience in developing curriculum to accommodate different learning styles & maximize students' comprehension
- Received research awards
- Exposure in working with TANAP Gas Pipeline Project at Worley Parsons.
- Exposure to planning and organizing day-to-day research activities and resolving the procedural problem as appropriate to the timely accomplishment of research objectives
- An effective leader with proven skills in leading teams during the project phase, training & guiding team members and enabling knowledge sharing among the team

ORGANIZATIONAL EXPERIENCE

(1) Since June 2022 with HBTU Kanpur in Chemical Engineering Department as 'Associate Professor'.

(2) Since Jul '08 with Petroleum University – University of Petroleum and Energy Studies, Dehradun in Chemical Engineering Department as 'Assistant Professor (Selection Grade)'.

Key Result Areas

- Fostering a healthy learning atmosphere in class and responding to all classroom queries spontaneously, empathic manner; ensuring discipline by observing students' work, behavior and attendance.
- Guiding university subjects to undergraduate & postgraduate students; reviewing pre-set educational goals, objectives & classroom instructional programs, establishing academic/other performance objectives
- Evaluating curriculum, teaching methods & programs for designing subjects to determine their effectiveness and efficiency, thereby ensuring that Institute activities
- Teaching as per academic curriculum to students, recognizing, respecting & nurturing the creative potential of each student; preparing exercises, questionnaires and assignments for students at various levels

Highlight

- Project and Placement Coordinator for **MTech. Chemical (Spl. Process Design) & MTech. Pipeline Engineering.**
- Teaching Design of 'Pipeline Transportation of Oil and Gas' to MTech. Pipeline students from last seven years.
- Taught Fluid Mechanics, Mass Transfer, Heat Transfer, Chemical Reaction Engineering, Material and Energy Flow Computation to graduate and post-graduate chemical Engineering students.
- Faculty Convenor-IChE (Indian Institute of Chemical Engineers)

(3) Sep' 05- Jun '08 at I.M.S.E.C., Ghaziabad as Lecturer in Chemical Engineering

Highlights

- Imparted training to the students on chemical engineering subjects with implications on industrial units, including Heat Transfer, Mass Transfer, Mechanical Operations, Fluid Mechanics, Chemical Reaction, Engineering, Mass and Material Balances

Recent Publications

Arya, A.K.(2022) A critical review on optimization parameters and techniques for gas pipeline operation profitability. *J Petrol Explor Prod Technol.* <https://doi.org/10.1007/s13202-022-01490-5> (SCI) **Single Authored Publication**

Arya, A. K. (2021). Optimal operation of a multi-distribution natural gas pipeline grid: an ant colony approach. *Journal of Petroleum Exploration and Production Technology*, 11(10), 3859-3878. IF-2.1 (SCI)
SINGLE AUTHORED PUBLICATION

Arya, A.K. and Honwad, S. (2016). Modelling, simulation, and optimization of a high-pressure cross-country natural gas pipeline: Application of Ant colony optimization technique. *Pipeline Sys. Eng. Pract.* 7: 1–8. IF-1.94 (SCI)

Arya, A.K. and Honwad, S. (2018). Optimal operation of a multi-source multi delivery natural gas transmission pipeline network. *Chem. Prod. Process Model.* 13: 1–17. I.F-0.66 (SCI)

Arya AK, Honwad S. Multi-objective optimization of a gas pipeline network: an ant colony approach. *Journal of Petroleum Exploration and Production Technology* 2017.10.1007/s13202-017-0410-7. I.F-2.1 (SCI)

Thakur, A. K., Arya, A. K., & Sharma, P. (2022). Prediction and mitigation of AC interference on the pipeline system. *Corrosion Reviews*, 40(2), 149-157.

Thakur, A. K., Arya, A. K., & Sharma, P. (2021). Corrosion of pipe steels under alternating currents. *International Journal of Electrochemical Science*, 16(11). IF-1.74 (SCI)

Thakur A., Arya A.K, Sharma P; The science of alternating current-induced corrosion: a review of literature on pipeline corrosion-induced due to high-voltage alternating current transmission pipelines; *Corrosion Reviews*, 2020, Volume 38, Issue 6, Pages 463–472. IF- 3.02 (SCI)

Arya, A. K. (2021). A comparison of the M.O.G.A. and NSGA-II optimization techniques to reduce the cost of a biomass supply network. *Materials Today: Proceedings* (SCOPUS)

Arya, A. K., Jain, R., Yadav, S., Bisht, S., & Gautam, S. (2021). Recent trends in gas pipeline optimization. *Materials Today: Proceedings* ((SCOPUS)

Gupta, SS., Arya. A.K. "Designing a Model for Optimization of Maintenance and Inspection Efforts against Third Party Damage to Cross Country Pipelines in India. *International Journal of Recent Technology and Engineering.* 2019, 8(4)- (SCOPUS)

Gupta, SS., Arya. A.K. "An Approach to Determine Probability of Third-Party Damage to Cross-Country Pipelines in India" *Journal of Emerging Technology and Innovative Research* 8 (4), 290-304 (UGC)

Gupta, SS., Arya. A.K. "Implementation of Pipeline Integrity Management in a Large Pipelines Network in India." *Journal of Emerging Technology and Innovative Research* 8 (4), 290-304 (UGC.)

Arya, A. & Shingan, B. "Scour-mechanism detection and mitigation for subsea pipeline integrity," *Int. J. Eng. Res. Technol.* 2012, 1(3)

Arya, A. K., B. Shingan, and C. Vara Prasad. "Seismic design of continuous buried pipeline." *Int. J. Eng. Sci.*, 2015, 1 (1): 6–17.

Book Chapter: Arya, A. K. (2022). Application and Challenges of “Blockchain Technology” in the Oil and Gas Industry. In *Blockchain Technology* (pp. 181-202). CRC Press.

PhD Guidance:

- i. (As Main Supervisor) -SS GUPTA(IOCL). PhD Thesis Topic- Optimizing maintenance and inspection practices to minimize 3rd party damage probability in Liquefied petroleum gas pipeline in India-Phd Awarded
- ii. (As Main Supervisor)- Ajit Thakur (IOCL). PhD thesis Topic: Mitigating AC induced corrosion in pipeline Networks- Phd Awarded
- iii. Amrit Sarkar (Oil India Limited)- Optimization of cross-country oil pipeline networks.

ACADEMIC DETAILS

- Ph.D. (Chemical Engineering/ Natural Gas Pipeline Optimization) from University of Petroleum & Energy Studies, Dehradun in 2015 (**PhD Topic: Multi-objective Optimization of A Multi-nodal Gas Pipeline**).
- Piping Engineering from I.I.T. Mumbai, Center of Continuing Education at 2008
- M. Tech. (Chemical Engineering) from H.B.T.I., Kanpur in 2005. (First Division with Honors)
- GATE qualified with Percentile 93.31 (A.I.R. 381) in 2003
- B.Tech. Chemical Engineering from B.I.E.T., Jhansi in 2002. (First Division)
- 12th from J.I.C. Lucknow in 1997 (First Division).
- 10th from J.I.C. Lucknow in 1995 (First Division)

CERTIFICATIONS

- Obtained certificate of attending a workshop on 'Defect Assessment & Maintenance in pipelines' organized by PETROFED from July 26-28 July 2010.
- Obtained certificate on regional workshop and brainstorming session on water quality management and river bank certification, organized by U.C.O.S.T. on 4 Feb 2012.
- Obtained certificate of attending one-week short term program on retail management practices in Indian industries at I.M.S. Ghaziabad from April 2008 to July 21, 2008.
- Attended Complimentary seminar on M.A.T.L.A.B. and Simulink for engineering education on 20 July 2012.
- Certification for successfully attending certificate courses on petroleum refining and petrochemicals organized by Petrotech and I.I.P.M. Gurgaon in 2010
- Certificate for poster presentation on the production of anhydrous ethanol using salt at I.M.S. Ghaziabad in 2007
- Certification for participating as a committee member at I.M.S., Ghaziabad from 18-19 January.
- Certification on organizing INTERFACE-2004 at H.B.T.I. Kanpur.
- Certification course on 'Transportation of Oil and Gas Through Pipelines' organized by the Petroleum Federation of India from 08-10 July 2009.
- Internship at Shrinivas Fertilizers Limited from 25/06/2001 to 02/08/2001.
- Member and Faculty Advisor of Indian Institute of Chemical Engineers- Student Chapter UPES Dehradun
- Faculty Development program from NTTR Bhopal in 2018 and 2020