Dr. Ajmal T. S.

Associate Professor

Department of Mechanical Engineering

tsajmal@gmail.com

Educational Background

- PhD in Metallurgical and Materials Engineering from National Institute of Technology Karnataka (NITK), Surathkal (2021)
- M.Tech. in Manufacturing Technology from PRIST University, Thanjavur (2014)
- B.E. in Mechanical Engineering from Anna University, Chennai (2008)

Professional Experience

- 2 years of experience as Associate Professor at AWHEC, Calicut
- 1 year of experience as Post-Doctoral Research Associate at IIT Bombay
- 2 years of experience as Piping Engineer at NSH, Saudi Arabia

Area of Interest

- Alloy Development
- Heat Treatment of Materials
- Laser Surface Melting of Materials
- Flow Accelerated Corrosion of Steel Pipe
- Material Testing and Characterizations

Area of Expertise

- Metallurgical and Materials Engineering
- Manufacturing Technology

Publications

- **Ajmal T. S.**, Arya S. B., and Udupa K. R. (2019), *"Effect of hydrodynamics on the flow accelerated corrosion (FAC) and electrochemical impedance behavior of line pipe steel for petroleum industry"*, Int. J. Press. Vessel. Pip., 174 (2019), 42–53, **Impact Factor: 3.5** [WoS/SCIE/Clarivate Analytics, 2025], https://doi.org/10.1016/j.ijpvp.2019.05.013

- **Ajmal T. S.**, Arya S. B., Thippeswamy L. R., Quraishi M. A., and Haque J. (2020), *"Influence of green inhibitor on flow-accelerated corrosion of API X70 line pipe steel in synthetic oilfield water"*, Corros. Eng. Sci. Technol., 55(6), 487–496, **Impact Factor: 1.9** [WoS/SCIE/Clarivate Analytics, 2025], https://doi.org/10.1080/1478422X.2020.1745355

- **Ajmal T. S.**, Arya S. B., Maurya P., and Shariff S.M. (2022), *"Effect of hydrodynamics and laser surface melting on erosion-corrosion of X70 steel pipe elbow in oilfield slurry"*, Int. J. Press. Vessel. Pip., 199 (2022), 104687, **Impact Factor: 3.5** [WoS/SCIE/Clarivate Analytics, 2025], https://doi.org/10.1016/j.ijpvp.2022.104687

- **Ajmal T. S.**, Rahul Kumar Singh, Arya S. B., and Satish Kumar D (2024), *"Enhancing the Flow Accelerated Corrosion Resistance of X70 API Steel Through Laser Surface Melting in Synthetic Oilfield Water"*, Materials and Corrosion, **Impact Factor: 2** [WoS/SCIE/Clarivate Analytics, 2025], https://doi.org/10.1002/maco.202414456

Patents

- G. Yuvaraj, K. Kiran, **T. S. Ajmal**, A. Chelliah, *"Pneumatic Lifter"*, Indian Patent/Design No.: 387246-001, Date: 29/05/2023, Date of Issue: 13/09/2023, Controller General of Patents, Design and Trade Marks, The Patent Office, Government of India

- D. R. P. Rajarathnam, **T. S. Ajmal**, Khubi Lal Khatri, S. Rajasekar, S. Dhinakar, C. Ravikumar, M. Vetriselvan, A. Vetrivel, P. Sameerabanu, K. Akilandeswari, *"Automated Wheel Alignment and Puncture Detection System Enhancing Vehicle Safety and Performance"*, Indian Patent Application No.202441036988 A, Date of Publication: 17/05/2024, Controller of Patents, The Patent Office, Chennai

- Kiran K., Pushpavathi S. M., G. Yuvaraj, Venu Gopal B. T., Mohd Hamid Hussain, **T. S. Ajmal**, Ajaykarthik R. T, *"Self-Operating Smart Telescopic Fork Assembly"*, Indian Patent/Design No.: 432386-001, Date: 01/10/2024, Date of Issue: 11/12/2024, Controller General of Patents, Design and Trade Marks, The Patent Office, Government of India

Conference Proceedings

- **Ajmal T. S.**, Baskaran T., Abheepsit Raturi, Udupa K. R., Arya S. B., "Study of Flow Accelerated Corrosion at Elbow of 304 Stainless Steel Pipeline in Oil Field Water", Paper No. IC-23, *International Corrosion Conference and Expo CORCON 2016 (NACE)*, 18-21 Sep. 2016, New Delhi, India

- **Ajmal T. S.**, Baskaran T., Udupa K. R., and Arya S. B., "Flow Accelerated Corrosion at 304 Stainless Steel Pipeline Elbow in Oil Field Water", Paper No. NTC2016-597, *National Tribology Conference 2016*, 8-10 Dec. 2016, IIT (BHU) Varanasi

- **Ajmal T. S.**, Shashi Bhushan Arya, K. Rajendra Udupa, "Flow Accelerated Corrosion of API X70 Pipeline Steel in Oilfield Water", *5th CORSYM*, 23-24 March 2018, IIT Madras, Chennai, India, ISBN 9788193342824, 75-76
- **Ajmal T. S.**, Shashi Bhushan Arya, Shariff S.M., "Influence of laser surface modification on flow assisted corrosion (FAC) behaviour of API X70 steel in oilfield water", *NMD-ATM-2019*, Nov. 13-16, 2019, Trivandrum, India. TCMCRP23, Page No. 323
- Thakur Ashish, Shashi Bhushan Arya, **Ajmal T. S.**, "Study of Flow Accelerated Corrosion on AZ91D Magnesium Alloy Used in Engine Radiator", *5th CORSYM*, 23-24 March 2018, IIT Madras, Chennai, India

Google Scholar Research Profile

https://scholar.google.com/citations?user=6nnt3j4AAAAJ&hl=en

Hobbies

- Reading
- Travelling

For professional inquiries or collaborations, contact via email: tsajmal@gmail.com