

EDITORIAL

It is with great pleasure that we relaunch the Journal of Technical and Vocational Education, a flagship publication of NITTTR Chennai, then TTTI after a hiatus of 16 years. This milestone marks our renewed commitment to fostering scholarly discourse, innovation, and excellence in technical and vocational education as we have been rechristened as an Institution Deemed to be University in the Diamond Jubilee Year of 2024.

This journal aims to provide a platform for educators, researchers, policymakers, and industry experts to share their insights, experiences, and research findings on various aspects of technical and vocational education. We envision this journal to catalyze meaningful discussions, collaborations, and innovations that can help shape the future of technical and vocational education in India and beyond. In this inaugural electronic issue of our Journal, we feature a curated selection of articles that showcase the diversity and richness of research and practice in technical and vocational education. We are grateful to our authors, reviewers, and editorial team for their tireless efforts in bringing this issue to fruition.

This edition of the Journal of Technical and Vocational Education presents a diverse collection of research papers that delve into cutting-edge technologies, pedagogical approaches and societal challenges. From the integration of Augmented Reality in tourism to the ethical considerations of organ donation in the Internet of Medical Things (IoMT), these articles offer valuable insights for educators, researchers, and practitioners alike. Key themes and highlights are as follows.

Technological Advancements

"Implementation of an Augmented Reality-based Tour Guide Application in Cloud" by B. Sriman, O.Pandithurai and S.H. Annie Silviya explores the potential of AR technology to enhance the tourism experience. "Flow Analysis of Transverse Injection in A Typical Strut-Based SCRAMJET Combustor" by G. Sridhar, E. Balasubramanian and B.T.N.Sridhar delves into the complexities of aerospace engineering, focusing on the critical analysis of combustion in a SCRAMJET engine. "ML-Based Object Recognition and Object Picking Robot using ROS" by G. A. Rathy and P. Sivasankar showcases the integration of machine learning and robotics for advanced automation tasks. "Position and Velocity Analysis of Open and Closed Loop System Using Various Controllers in Underwater ROV-ORCA for Stabilized Navigation" by M. Vimal Raj, Sakthivel Murugan Santhanam, Muthumeenakshi Kailasam, B. Sandhya and G. Sree Harine investigates the intricacies of underwater robotics and navigation systems.

Pedagogical Innovations and Teacher Development

"The Importance of Ongoing Professional Development for Teachers: Enhancing Pedagogical Practices and Student Outcomes" by Sundaresan Ranganathan and M.Vetrivel emphasizes the crucial role of professional development in improving teaching practices and student learning. "Mathematics Teachers Perceptions in Action Research: Functionality in Flipped Classroom Approach" by I.S.K. Eriyagama and M. Lubna Ali investigates the effectiveness of the flipped classroom approach in mathematics education.

Social and Ethical Considerations

"Blockchain-Based Security for Organ Donation Health Records in IoMT" by C.Gethara Gowri, M.Amanullah and J.Lakshmikanth addresses the critical issue of data security and privacy in the context of organ donation within the IoMT. "The Impact of Language Diversity on Technical Education in the Andaman and Nicobar Islands: Challenges and Strategies in the NEP 2020 Context" by K.N. Shoba and T. Diana Joslin examines the challenges and potential solutions for addressing linguistic diversity in technical education within the framework of the National Education Policy 2020 in the Andaman and Nicobar Islands. "A Social Philosophical Study on Gender and Vocational Training of Persons with Disability" by Chamila Siriwardene and A.H. Indika Sanjeewa explores the crucial intersection of gender, disability and vocational training from a social and philosophical perspective.

Energy and Sustainability

"Power Quality Enhancement in Microgrid for Grid Connected Electric Vehicle Charging Infrastructure: A Critical Review" by N.Sivanantham, P.Thamizhazhagan and P. Pugazhendiran examines the crucial role of power quality enhancement in supporting the growing demand for electric vehicle charging infrastructure within microgrid systems.

This edition of the Journal of Technical and Vocational Education offers a valuable resource for researchers, educators, and policymakers seeking to understand and address the critical challenges and opportunities in technology, education, and society. We look forward to receiving your contributions, feedback, and suggestions and to working together to create a vibrant community of scholars and practitioners.

Thank you

Editor-in-Chief

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