

VELS



INSTITUTE OF SCIENCE, TECHNOLOGY & ADVANCED STUDIES (VISTAS)
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PALLAVARAM, THALAMBUR, PERIYAPALAYAM, THIRUVANMIYUR - CHENNAI

PRAVESHA 2K26

PROCEEDINGS OF THE NATIONAL LEVEL SYMPOSIUM PRAVESHA 2026

Synthesizing Technology, Celebrating Talent

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Organized by

**Department of Computer Science and Engineering,
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School of Engineering
VISTAS - Chennai**

Proceedings of the National Level Symposium Pravesha 2026

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Dr. Ishari K Ganesh
Founder-Chancellor
VISTAS

MESSAGE

It gives me great pleasure to note that the Departments of Computer Science and Engineering & Data Science and Information Technology in the School of Engineering, VISTAS, is organizing the National Level Symposium “**PRAVESH 2K26**.”

In today’s rapidly evolving technological landscape, this symposium plays a vital role in nurturing innovation, encouraging knowledge exchange, and fostering collaboration among young minds. *Pravesha 2K26* provides an excellent platform for students to showcase their talents, share ideas, and explore emerging trends in the fields of computing, data science, and advanced technologies.

I appreciate the efforts of the organizing committee, faculty members, and students for their initiative and dedication in bringing together this academic event. I am confident that this symposium will inspire participants to think creatively, innovate responsibly, and contribute meaningfully to society.

I extend my best wishes for the grand success of **Pravesha 2K26** and hope that it will be a memorable and enriching experience for all.

Chancellor
VISTAS



Dr.A.Jothi Murugan
Pro-Chancellor (P&D)
VISTAS

MESSAGE

I am glad to know that the Department of Computer Science and Engineering & Data Science and Information Technology in the School of Engineering, VISTAS, is organizing a National Level Symposium “PRAVESHHA 2K26” on 9th April 2026, featuring both technical and non-technical events.

Events like Pravesha 2K26 reflect the importance of thoughtful planning and continuous development in the academic ecosystem. Such platforms enable students to engage with emerging technologies, exchange innovative ideas, and enhance their overall competencies. The inclusion of both technical and non-technical events ensures a comprehensive approach to nurturing talent, creativity, and leadership skills.

I appreciate the dedicated efforts of the organizing committee, faculty members, and students in conceptualizing and executing this symposium. I am confident that this initiative will contribute significantly to academic growth, skill development, and institutional excellence.

I extend my best wishes for the successful conduct of Pravesha 2K26 and hope it will be a rewarding and enriching experience for all participants.

Pro-Chancellor
(Planning and Development)
VISTAS



Dr. Preethaa Ganesh
Vice President
Vels Group of Institutions

MESSAGE

I am glad to know that the Departments of Computer Science and Engineering, Data Science and Information Technology, School of Engineering, VISTAS, are organizing the National Level Symposium “**PRAVESHHA 2K26**” on **9th April 2026**.

The National-Level symposium provides an excellent platform for students to showcase their technical expertise, exchange innovative ideas, and gain exposure to the latest advancements in technology. *Pravesha 2K26* reflects the institution’s commitment to fostering academic excellence, creativity, and collaborative learning among aspiring engineers and researchers.

I appreciate the sincere efforts of the faculty members, organizing committee, and students in bringing this event to a greatest success. I am confident that this symposium will serve as a catalyst for innovation and inspire participants to contribute meaningfully to the technological landscape.

I extend my heartfelt wishes for the grand success of **Pravesha 2K26** and hope the event proves to be highly beneficial and memorable for all.

Vice President
VISTAS



Dr.M.Bhaskaran
Pro-Chancellor (Strategic Operations & Expansion)
VISTAS

MESSAGE

I am delighted to note that the Departments of Computer Science and Engineering, Data Science, and Information Technology, School of Engineering, VISTAS, are organizing the National-Level Symposium, “PRAVESH 2K26”, on 9th April 2026, featuring a blend of technical and non-technical events.

In today’s highly competitive and innovation-driven landscape, such symposiums play a vital role in nurturing strategic thinking, collaboration, and creativity among students. Pravesha 2K26 provides an excellent platform not only to explore emerging technological advancements but also to develop essential life skills through a wide spectrum of activities beyond the technical domain.

I commend the organizing committee, faculty members, and students for their vision, dedication, and efforts in planning this event. I am confident that this symposium will enhance academic engagement, encourage interdisciplinary learning, and further strengthen the institution’s growth and outreach.

I extend my best wishes for the grand success of Pravesha 2K26 and trust that it will be a highly enriching and impactful experience for all participants.

Dr M Bhaskaran
Pro-Chancellor (SOE)
VISTAS



**Dr. T. Sasipraba M.E., Ph.D.,
Vice-Chancellor
VISTAS**

MESSAGE

It gives me great pleasure to note that the Department of Computer Science and Engineering, Data Science and Information Technology, School of Engineering, VISTAS, is organizing the National Level Technical Symposium “**PRAVESH 2K26**” on **9th April 2026**, featuring both technical and non-technical events.

Such symposiums play a significant role in shaping the intellectual and creative capabilities of students by providing a vibrant platform to demonstrate their skills, exchange knowledge, and engage in healthy competition. The inclusion of both technical and non-technical events ensures holistic development, encouraging participants to enhance not only their domain expertise but also their communication, creativity, and teamwork skills.

I appreciate the commendable efforts of the organizing committee, faculty members, and students for conceptualizing and executing this event. I am confident that *Pravesha 2K26* will inspire innovation, foster collaboration, and contribute to the overall academic excellence of the institution.

I extend my best wishes for the grand success of **Pravesha 2K26** and hope that it will be a rewarding and memorable experience for all participants.

**Vice-Chancellor
VISTAS**



Dr. M. Chandrasekaran
Registrar
VISTAS

MESSAGE

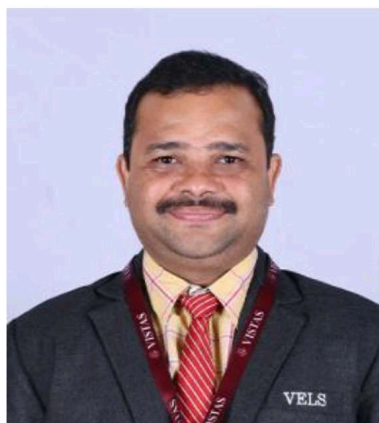
I am happy to note that the Department of Computer Science and Engineering, Data Science and Information Technology, School of Engineering, VISTAS, is organizing the National Level Technical Symposium “**PRAVESH 2K26**” on **9th April 2026**, comprising both technical and non-technical events.

Such academic initiatives provide a valuable platform for students to showcase their talents, enhance their organizational skills, and engage in knowledge-sharing activities. The blend of technical and non-technical events in *Pravesha 2K26* reflects a balanced approach towards the overall development of students, encouraging creativity, innovation, and teamwork.

I appreciate the efforts of the organizing committee, faculty members, and students in meticulously planning this symposium. I am confident that this event will be well-coordinated and successfully executed, offering a meaningful and enriching experience to all participants.

I extend my best wishes for the successful conduct of **Pravesha 2K26**.

Registrar
VISTAS



Dr. C. Arun
Dean- SoE
VISTAS

MESSAGE

It gives me immense pleasure to know that the Department of Computer Science and Engineering, Data Science and Information Technology, School of Engineering, VISTAS, is organizing the National Level Technical Symposium “**PRAVESH 2K26**” on **9th April 2026**, featuring both technical and non-technical events.

Such symposiums serve as a dynamic platform for students to showcase their technical acumen, innovative ideas, and creative talents. The integration of technical and non-technical events in *Pravesha 2K26* ensures holistic development, nurturing not only domain knowledge but also essential skills such as communication, leadership, and teamwork.

I appreciate the dedicated efforts of the organizing committee, faculty members, and students in conceptualizing and organizing this event. I am confident that this symposium will inspire participants to explore new frontiers in technology and contribute meaningfully to the advancement of engineering and society.

I extend my best wishes for the grand success of **Pravesha 2K26** and hope it will be a rewarding and memorable experience for all.

Dean, School of Engineering
VISTAS

Preface

It gives us immense pleasure to present the Proceedings of the National Level Technical Symposium “Pravesha ’26”, organized by the Department of Computer Science and Engineering, Data Science and Information Technology, School of Engineering, Vels Institute of Science, Technology and Advanced Studies (VISTAS) on April 09, 2026.

“Pravesha ’26” serves as a dynamic platform for students, researchers, and academicians from across the country to showcase their innovative ideas, research findings, and technical expertise in the rapidly evolving domains of Computer Science, Data Science, and Information Technology. The symposium aims to foster knowledge sharing, encourage interdisciplinary collaboration, and promote a spirit of inquiry and innovation among participants.

This volume of proceedings includes a collection of selected papers that reflect contemporary advancements and emerging trends in various areas of technology. Each paper has been reviewed and selected based on its originality, technical quality, and relevance to current research challenges.

We sincerely thank the management of VISTAS for their continuous support and encouragement in organizing this symposium. We also express our gratitude to the dignitaries, speakers, reviewers, faculty members, and student coordinators whose dedicated efforts contributed to the successful conduct of this event.

We extend our heartfelt appreciation to all the authors and participants for their valuable contributions, which have enriched these proceedings. We hope that this publication will serve as a useful reference for researchers and inspire further innovations in the field.

Editors
Pravesha 2K26
Department of CSE, DS & IT
School of Engineering
VISTAS

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NSPPP-005**REDPULSE: EMERGENCY BLOOD MANAGEMENT SYSTEM***Dr. A. Packialatha¹, Dr. E. Padma¹, Santhosh M², Bhavna M²**Associate Professor¹, UG Scholars²**Department of Data Science & Information Technology,
Vels Institute of Science Technology and Advanced Studies, Chennai.*

Abstract: RedPulse is a location-based emergency blood management system designed to provide fast, reliable, and intelligent coordination between blood donors, hospitals, blood banks, and patients during critical medical situations. The system enables real-time blood request generation by specifying blood group, urgency level, and geographic location. Using GPS-based services, nearby eligible donors and blood banks are instantly identified and notified, ensuring rapid response during emergencies. A donor health management module maintains detailed medical records such as blood pressure, sugar levels, and donation history to ensure safe and reliable transfusion. The platform also integrates an AI-powered chatbot that analyses donor availability, tracks emergency trends, and provides personalized health recommendations. Additionally, a reward-based system encourages active participation from donors and blood banks. RedPulse offers a scalable and efficient solution that significantly improves emergency blood availability and contributes to life-saving healthcare services.

Keywords: *Emergency Blood Management, Location-Based Services, Blood Donation System, Health Chatbot, Reward-Based Healthcare Platform.*