Proceedings of

13 th International Conference on Contemporary Engineering and Technology 2025

March 22nd & 23rd, 2025

ISBN 978-81-985365-9-4

13th INTERNATIONAL CONFERENCE ON CONTEMPORARY ENGINEERING AND TECHNOLOGY 2025 (ICCET – 2025)

March 22nd – 23rd, 2025

ORGANIZED BY

ORGANIZATION OF SCIENCE AND INNOVATIVE ENGINEERING & TECHNOLOGY (OSIET).

Chennai, India.

Website: www.ijsiet.org

In Association with

PRINCE SHRI VENKATESHWARA PADMAVATHY ENGINEERING COLLEGE

PRINCE DR. K. VASUDEVAN COLLEGE OF ENGINEERING AND TECHNOLOGY

Medavakkam - Mambakkam Road, Ponmar, Chennai – 600 127

Website: www.psvpec.in | www.princedrkvasudevan.com

In Collaboration

Samarkand State University

Samarkand, Uzbekistan

www.samdu.uz/en

ICCET 2025

Proceeding of 11th International Conference on Contemporary Engineering and Technology

22nd & 23rd March, 2025

Organized by:

Organization of Science and Innovation Engineering & Technology

4/3, Vallalar Street, Choolaimedu, Chennai – 600094

Venue:

Prince Shri Venkateshwara Padmavathy Engineering College
Prince Dr. K. Vasudevan college of Engineering and
Technology Medavakkam - Mambakkam Road, Ponmar,
Chennai – 600 127

ISBN 978-81-985365-9-4

Published at: Chennai

CHAIRMAN'S MESSAGE

I am delighted to welcome you all to the International Conference on "Contemporary Engineering and Technology" (ICCET 2025) which brings together experts and academics from around the world. The conference this year has brought together a tremendous and rich diversity of authors and speakers from universities, government and industry to share ideas and new perspectives on a wide range of Communications, Electronics, Networking, Computer Science, Mechanical and Electricals research and technologies. Addressing the new technical and business issues are essential to advance in today's engineering and technological environments. In order to provide an outstanding technical level for the presentations at the conference, we have invited more than 15 distinguished experts in the Engineering and Technology field to participate in the Advisory Committee. Academic excellence has always been the hall mark of our institute and we are committed to provide a comprehensive education which seeks to develop the students into academically proficient, morally upright and socially well integrated individuals. I would like to express my thanks to all authors for their outstanding contributions and in particular the members of the program board for their competent evaluation of the large number of submissions

We are very pleased with the quality, depth, and breadth of this year's technical program. I wish you a most enjoyable experience at the Conference.

Dr.K.Vasudevan

Chairman
Prince Group of Educational Institutions

VICE CHAIRMAN'S MESSAGE

The words "Engineering" and "Technology" are not just words but are vital disciplines that guide the world by bringing huge changes to the current way of living. Modern Engineering and Technological innovations are making people think that nothing is impossible in this world. Everything can be achieved with an extremely powerful vision and a path to attain that vision. If a person is doing a marvel, keep in mind that you too can outshine them with perseverance. Dr. A. P. J Abdul Kalam said "Dream is not something that comes when you sleep, it is something that doesn't let you sleep", so, dream a lot about how to bring changes and try to make the changes come true. Remember earning money is not life; it is just a part of life which can be easily earned when you do it with dedication. Science and technology have become so closely intertwined, and I hope the conference will help you to reinforce each other.

We are very much elated in welcoming you all to our college for the 13th International Conference on Contemporary Engineering and Technology and I wish the students all the very best for their presentations.

Dr. V.Vishnu Karthick,
Vice Chairman,
Prince Shri Venkateshwara Padmavathy Engineering College.

ADMINISTRATIVE OFFICER'S MESSAGE

The world is growing fast in fact it grows in such a way that a thing invented yesterday becomes obsolete today, which means there is a plethora of competition in each and every discipline of engineering and technology. This scenario goes well with a famous quote of a philosopher Heraclitus, who said, "Change is the only constant in this world." Now a days people need new inventions for their daily works so that they can do it with ease. People not only need to do their activities with ease but they also need it to be done within a period of time. As an engineer we need to solve problems that are left unsolved. As a way of showcasing the talents of young minds to find solutions we have organised this 13th International Conference on Contemporary Engineering and Technology.

I welcome you all to this event, my warm wishes to the students who are going to present their papers and also hearty thanks for the staff who have made this event a great success.

Er. K. Parthasarathy

Administrative Officer

Prince Group of Educational Institutions

PRINCIPAL'S MESSAGE

I express my happiness to meet you through this 13th International Conference on Contemporary Engineering and Technology (ICCET 2025). I am much delighted to convey my warm greetings to the Guests and the Host. We, at Prince Shri Venkateshwara Padmavathy Engineering College and Prince Dr. K. Vasudevan College of Engineering and Technology, Ponmar, Chennai impart futuristic technical education and instil high pattern of discipline. Education is sweeter and valuable when it promotes the blossoming of natural talent that enriches students to be self reliant individuals. The scenario of technical education in India is now in a transformational phase as compared to earlier times. We are in a compelling era where global conditions require conventional practices which make one to change and adapt to suit the present requirements and also address futuristic needs. The college is committed in enhancing the quality of service delivery, providing practical cum industrial-oriented programs and ensuring a valuable campus environment for the faculty and students. With the support of the Management, faculty members, staff and students are excelling in their work. The holistic and comprehensive education provided in the College will enlighten the students and enable them to face the challenging world. Research is the key parameter to promote the individuality to horizon. In order to create the best engineers we have organized the international conference to enhance the research activities of the budding engineers.

This proceeding of the conference has been documented with utmost care. I believe strongly that, this will stand as a great source of knowledge and researchers. With immense pleasure and pride, I welcome all the participants and convey my best wishes for ICCET 2025.

Dr. V.Mahalakshmi
Principal
Prince Shri Venkateshwara Padmavathy Engineering College

PRINCIPAL'S MESSAGE

I am indeed most delighted to chair this 13th International Conference on Contemporary Engineering and Technology (ICCET 2025). The sharp, clear sighted vision and precise decision making powers of our management has benefited our college to stay competitive. The Pedagogy at the Institute is Modern where a variety of learning, behavioural tools are used in quality pursuance of knowledge, development of skills, attitudes, and values complemented by academia-industry interface imparting uniqueness to our programme. The Institute focuses on the holistic development of its students through variety of methodologies and extracurricular activities the whole year round. Today, we live in an era of incredibly rapid technological change. Technology has dominated our lives and we now have the ever evolving technology at our finger tips. Symposium, Seminars and International Conferences and Workshops are organized in the institute for their overall development. Teaching and Research are the two primary activities through which we fulfil our Mission and Objective. The Institute takes pride in welcoming the National and International participants for 13th International Conference.

With a firm foundation of the past and high hopes for a bright future, I wish everyone good luck and prosperity ahead. May we grow many technological wings!

Dr. T.Sunder Selwyn
Principal
Prince Dr. K. Vasudevan College of Engineering and Technology.

ABOUT INSTITUTION

Prince Educational Society was established in 1978 by our Founder - Chairman Dr. K. Vasudevan, M.A., B.Ed., Ph.D. Going down memory lane in the seventies, our Chairman had realized the need for an Institution which will serve as a role model and stand apart from other Educational Institutions.

VISION

The main aim of Prince Shri Venkateshwara Padmavathy Engineering College & Prince Dr. K. Vasudevan College of Engineering & Technology is to meet the challenges and demand of the highly advanced scientific and technological fields and to prepare to meet the man power needs of the world.

MISSION

To provide goal-oriented, quality-based and value-added education through state-of-the-art technology on a par with international standards. To promote nation - building activities in science, technology, humanities and management through research.To create and sustain a community of learning that sticks on to social, ethical, ecological, cultural and economic.

OUR GROUP OF INSTITUTIONS

Prince Shri Venkateshwara Padmavathy Engineering

College Prince Dr. K. Vasudevan College of Engineering &

Technology Prince Shri Venkateshwara Arts and Science

College

Prince Matriculation Higher Secondary School,7,Kannagi Street, Madipakkam to Puzhuthivakkam, Chennai

091 Prince Sri Vari Vidyalaya CBSE School,93 ,College Road , Nanganallur, Chennai 114.

Prince Sri Vari Vidyalaya CBSE School, 12,Kannagi Street, Madipakkam to Puzhuthivakkam, Chennai 91

Shri Venkateshwara Higher Secondary School, 9,Kannagi Street, Madipakkam to Puzhuthivakkam,

Chennai 91 Prince Matriculation Higher Secondary School, 67&68, College Road, Nanganallur , Chennai

114

It's an honour for me to be a part of ICCET 2025- the 13th International Conference on Contemporary Engineering organized by Prince Shri Venkateshwara Padmavathy Engineering College, Chennai, Tamil Nadu, India. The objective of this conference is to share knowledge, innovative ideas, various streams experiences and innovations in research and academia.
It's our privilege to have eminent personalities across the globe to enlighten and provoke about the advances in engineering and medical sciences.

I believe that this conference will provide valuable, useful and informative ideas to participant students, researchers and other experts.

I convey my best wishes for success of event.

DR. ANTENEH MESFIN YENENEH
ASSOCIATE PROFESSOR
DEPARTMENT OF CHEMICAL ENGINEERING
INTERNATIONAL MARITIME COLLEGE OMAN
OMAN

JAYPEE INSTITUTE OF INFORMATION TECHNOLOGY, NOIDA
(Deemed to be University under section 3 of UGC Act 1956)

It's my pleasure to welcome all the participants to the "Thirteenth International Conference on Contemporary Engineering" (March 22nd - 23rd, 2025), organized by Prince Shri Venkateshwara Padmavathy Engineering College in collaboration with Samarkand State University Uzbekistan at Prince Shri Venkateshwara Padmavathy Engineering College Medavakkam-Mambakkam Road, Ponmar, Chennai, Tamil Nadu, India. It is a premier event bringing together researchers, academicians, engineers, and industry experts from various disciplines of engineering and technology. This conference is going to serve as a platform for sharing knowledge, innovations, and advancements that are shaping the future of engineering across a diverse array of fields.

The themes covered in this conference reflect the vast and dynamic landscape of modern engineering, highlighting cutting-edge developments in various fields ranging from Computer engineering to Biomedical and Biotechnology. The conference also highlights the importance of sustainability and the role of engineering in mitigating environmental challenges, with discussions on water management, environmental engineering, and sustainable construction practices.

I feel proud that we have a platform for multidisciplinary dialogue, where participants can engage with experts, exchange ideas, and foster collaborative projects that will help shape the future of engineering. This gathering, aims to promote the latest trends, innovations, and research in engineering that have the potential to make a significant impact on industries and societies worldwide. I would like to thank all contributors, attendees, and sponsors for making this event possible. We all look forward to fruitful discussions, networking opportunities, and the sharing of innovative ideas that will contribute to the ongoing advancement of engineering and technology.

Let this conference be a stepping stone toward a brighter, more sustainable, and technologically advanced future.

Once again I welcome you all this event.

DR. RACHANA
PROFESSOR
DEPARTMENT OF BIOTECHNOLOGY
JAYPEE INSTITUTE OF INFORMATION TECHNOLOGY, NOIDA
INDIA

ICCET 2025

PATRON-IN-CHIEF

Thiru. Dr. K. Vasudevan, M.A., B.Ed., Ph.D,

Chairman,Prince Group of Educational Institutions.

Thiru. Dr.V.VishnuKarthik, MD, Vice-Chairman, Prince Group of Educational Institutions.

SECRETARY

Er.K.Parthasarathy, B.E,

Administrative Officer, Prince Group of Educational Institutions.

CONFERENCE CHAIR

Dr. V.Mahalakshmi, Principal,
Prince Shri Venkateshwara Padmavathy Engineering College

Dr.Sunder Selwyn, Principal,
Prince Dr.K.Vasudevan College of Engineering

CO-CONFERENCE CHAIR

Khalmuradov Rustam Ibragimovich, Rector of Samarkand State University, Uzbekistan

Soleev Ahmadjon, First Vice Rector for Academic Affairs of Samarkand State University, Uzbekistan

Khushvaktov Hakim, Vice Rector for Scientific works and Innovations of Samarkand State University, Uzbekistan

Akhatov Akmal Rustamovich, Vice Rector for International Cooperation of Samarkand State University, Uzbekistan

SPEAKERS

Dr. Anteneh Mesfin Yeneneh, Associate Professor, International Maritime College Oman, Oman

Dr. Rachana, Professor, Jaypee Institute of Information Technology, Noida, India

Dr. K. Aldrin Karunaharan, Assistant Professor, International Maritime College Oman, Sohar, Oman

Dr.Thangavel Bhuvaneswari, Faculty of Engineering and Technology [FET], Multimedia University, Malaysia

Prof. Dr.Christo Ananth, Professor, Samarkand State University, Uzbekistan

Dr. N.Sasirekha, Associate Professor, Sona College Of Technology, Salem, India

Prof. Dr.S.K.Mydhili, Professor, KGISL Institute of Technology, Coimbatore, India

1005	ICCET252878011	DESIGN AND IMPLEMENTATION OF VEHICLE EVENT DATA RECORDER IN AUTOMOBILES FOR ENHANCING SAFETY STANDARDS
1006	ICCET252358	OPTIMIZED ENERGY MANAGEMENT SYSTEM FOR, HYBRID WIND-SOLAR-BATTERY BASED MICROGRID
1007	ICCET25287507	ANALYSIS AND PERFORMANCE EVALUATION OF ANTECEDENT AND CONSEQUENCES OF AI ANXIETY IN SOCIAL MEDIA FOR PREDICTION OF HUMAN WELLBEING
1008	ICCET252068	FACIAL RECOGNITION SECURITY USING FEATURE-BASED ENSEMBLE LEARNING WITH CNN MAJORITY VOTING
1009	ICCET252007	ASPECT-BASED SENTIMENT ANALYSIS ON CUSTOMER REVIEW DATASET USING OPINION MINING
1010	ICCET2527409	IINOVATIVE APPROACH TO VEHICLE DETECTION, COUNTING AND CLASSIFICATION IN TRAFFIC SYSTEMS
1011	ICCET25287589	FABRICATION AND TESTING OF VINYL ESTER COMPOSITES REINFORCED WITH SISAL FIBRE AND MAGNESIUM OXIDE (MGO) NANOPARTICLES
1012	ICCET252349	YOUTUBE COMMENT ANALYZER
1013	ICCET25287559	DESIGN AND IMPLEMENTATION OF SEPIC CONVERTER IN WIRELESS EV CHARGING SYSTEM
1014	ICCET25287516	AI MOCK INTERVIEW PLATFORM
1015	ICCET25285335	EKLAVYA
1016	ICCET25287538	NEED-BASED CAREER GUIDANCE SYSTEM WITH INTELLIGENT FILTERING AND ATS COMPATIBILITY ANALYSIS
1017	ICCET252677	ONLINE CHATBOT BASED TICKETING SYSTEM
1018	ICCET252303	COMPREHENSIVE LUG NUT SAFETY SYSTEM WITH IMMOBILIZATION AND VOICE ACESS
1019	ICCET252661	REAL TIME COLLABORATIVE CODE EDITOR
1020	ICCET25287514	PREDICTION OF CUSTOMER LOAN ELIGIBILITY USING RANDOM FOREST MODEL
1021	ICCET2527437M	EXPLORING DEEP LEARNING TECHNIQUES TO OVERCOME CHALLENGES IN LIVER LESION DETECTION
1022	ICCET252729	PERSONALIZED MEDICAL RECOMMENDATION SYSTEM WITH SVM
1023	ICCET252878053	CHAIN OF LIFE: BLOCKCHAIN-ENABLED BLOOD, PLASMA & ORGAN DONATION
1024	ICCET25287528	ACCIDENT PRONE AREA PREDICTION
1025	ICCET252371	ENHANCING CREDIT CARD FRAUD DETECTION WITH HYBRID DEEP LEARNING MODELS
1026	ICCET25274374	HORTICULTURE IMAGE-BASED ENHANCING FEATURES FOR BETTER GARDENING USING DEEP LEARNING
1027	ICCET252311	CROP YIELD PREDICTION USING MACHINE LEARNING
1028	ICCET252878011A	AI-POWERED PERSONAL FINANCE OPTIMIZATION
1029	ICCET252696	IMPROVING ATM SECURITY VIA FACE RECOGNITION
1030	ICCET252700	SENTINELSPHERE:AI-ENHANCED SMART HELMET FOR NAVIGATION, AR INTEGRATION AND ROAD SAFETY
1031	ICCET252292	HUMAN DISEASE PREDICTION SYSTEM USING MACHINE LEARNING ALGORITHMS
1032	ICCET252878056	DUAL-MODE NON-INVASIVE JAUNDICE DETECTION SYSTEM WITH OPTICAL SENSING, BIOMARKER ANALYSIS AND BLOCKCHAIN INTEGRATION
1033	ICCET25274375	DEVELOPMENT OF AN AUTONOMOUS AGRIBOT FOR SEEDING AND PLOUGHING USING SOLAR PV

evaluation metrics such as accuracy, precision, recall, and F1-score, with the Random Forest model having the best accura-cy among the algorithms that were tested. The efficient and scalable framework helps banks automate loan approval processes while reducing operational expenses.

1021. EXPLORING DEEP LEARNING TECHNIQUES TO OVERCOME CHALLENGES IN LIVER LESION DETECTION

1Dr.K.Dharmarajan, Professor,
3Dr.K.Abirami, Assistant Professor,
1T.Haripriya, Research scholar,
School of Computing Sciences, VISTAS, Chennai, India

In worldwide liver lesion detection uses various scans for the accurate early detection, but the early detection of liver cancer is more challenges in worldwide, because of the irregular structure, different patient details and the various irregular appearances. Moreover, our proposed deep learning have been used for various complicated problems for the early diagnosis and treatment. In our previous studies they used more algorithms but it have some difficulties in identification of the difference between the cancerous and non-cancerous. So, in this proposed research we will apply the advanced deep learning and innovative techniques for the medical images by using automatic diagnostic system. Although the segmentation is the process of splitting the affected region in to parts for the accurate diagnosis in the appearance.

1022. PERSONALIZED MEDICAL RECOMMENDATION SYSTEM WITH SVM

GuideP.Vimala AssistantProfessor,
T. Niranjana
R. Ramya
V. Mamatha
Department of Computer Science and Engineering, Vel Tech High Tech Dr.Rangarajan Dr.Sakunthala Engineering College, Chennai, Tamilnadu, India

The advent of healthcare machine learning has significantly improved the precision and speed of medical decision-making. A machine learning-powered medicine recommendation system aims to provide personalized treatment suggestions, enhancing patient outcomes while minimizing adverse effects. This system utilizes vast datasets of patient records, medical literature, and drug interactions to generate tailored recommendations based on individual patient profiles. Advanced algorithms identify patterns and correlations that may elude human practitioners, offering a valuable tool for clinical decision support. The proposed system employs supervised and unsupervised learning that use models like neural networks, support vector machines, and decision trees.NLP, is integrated to analyze unstructured medical data, enabling comprehensive analysis.A feedback loop allows healthcare professionals to validate and refine recommendations, enhancing the system's reliability over time. Ensuring data security and adherence to ethical guidelines maintains patient confidentiality and aligns with regulatory standards.This approach addresses key challenges in personalized medicine, including drug compatibility and dosage optimization. It reduces the risk of human error and supports healthcare providers in managing complex cases efficiently. The implementation of this system in real-world healthcare settings demonstrates its potential to transform patient care, particularly in resource-constrained environments. By integrating machine learning into the medicine recommendation process, this research contributes to the ongoing evolution of intelligent healthcare systems, fostering a more proactive and precise approach to treatment.

 ISBN 978-81-985365-9-4