Program Overview

03	Days
11	Sessions
07	Expert Speakers
03	Institutions
24	Contact Hours
1.5	Credit Equivalent

Registration Detail

For Registration, Fees, etc Scan/Visit

Register here

Visit :
https://acupcb.spav.ac.in/capacity-building/edp_25_01/

Registration deadline :
27/10/2025 , 05:00 pm

Executive Development Program Team

Coordinators

Dr. MNV Pavan Kumar
Principal Instructor
Faculty, Dept of Planning SPA Vijayawada

Mr. Sandeep P.
Principle Co- Instructor
Faculty, Dept of Planning SPA Vijayawada

Mr. Bharagava Teja S.
Principle Co- Instructor
Faculty, Dept of Planning SPA Vijayawada

Patrons

Prof. Dr. Ramesh Srikonda
Director, SPA Vijayawada

Prof. Dr. Ayon Kumar Tarafdar
Head A-CUPCB SPAV

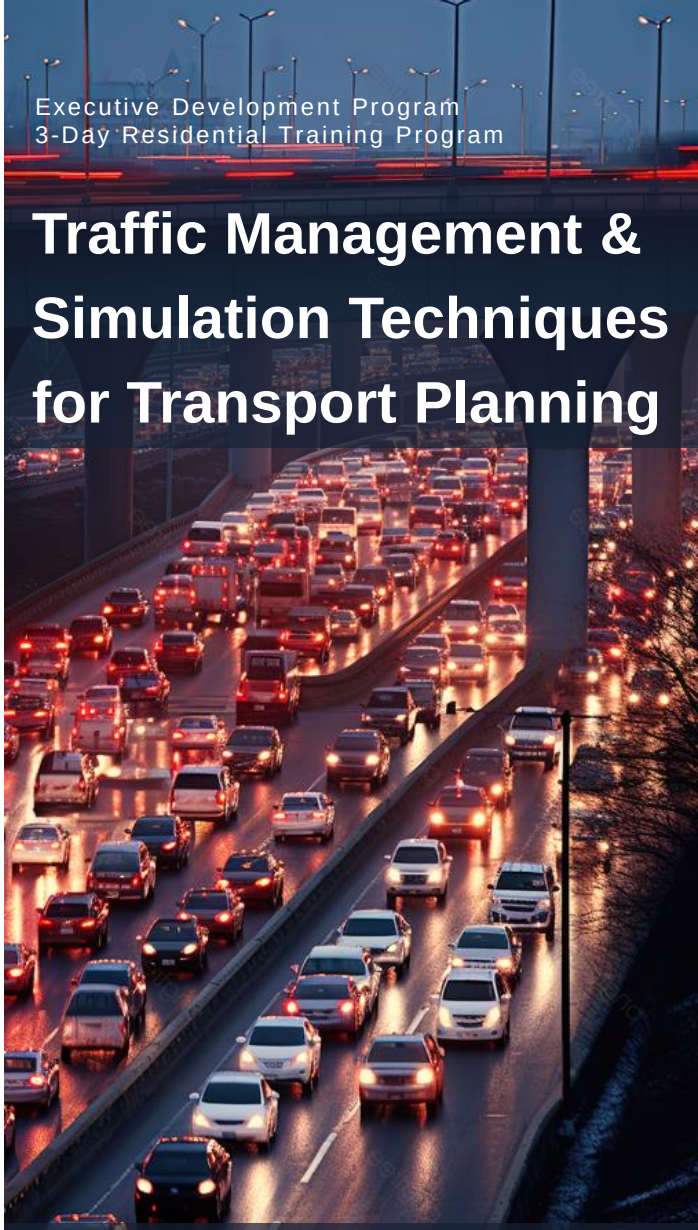
For further details, contact
Dr. MNV Pavan Kumar
Ph. No. 7835965623
Email : pavanmachavarapu@spav.edu.in

Organized by

योजना तथा वास्तुकला विद्यालय, विजयवाड़ा
School of Planning and Architecture, Vijayawada
An Institute of National Importance, Ministry of Education, Govt. of India

Executive Development Program
3-Day Residential Training Program

Traffic Management & Simulation Techniques for Transport Planning



29 - 31 October 2025

अमृत
Atal Mission for Rejuvenation and Urban Transformation

AMRUT Centre of Urban Planning for Capacity Building
A-CUPCB-SPAV

Purpose of the Programme

Growing congestion and safety concerns on urban roads stress the need for efficient traffic management. Enhancing mobility, cutting travel time, and improving overall urban quality of life require combining traditional methods with modern transport simulation techniques.

SPA Vijayawada offers a three-day Executive Development Program on "Traffic Management Methods Using Traditional Techniques and Transport Simulation Software." The course blends conventional strategies with advanced simulation tools to study traffic flow, improve safety, and reduce delays. It is designed for both professionals and academicians seeking to strengthen expertise in transportation.

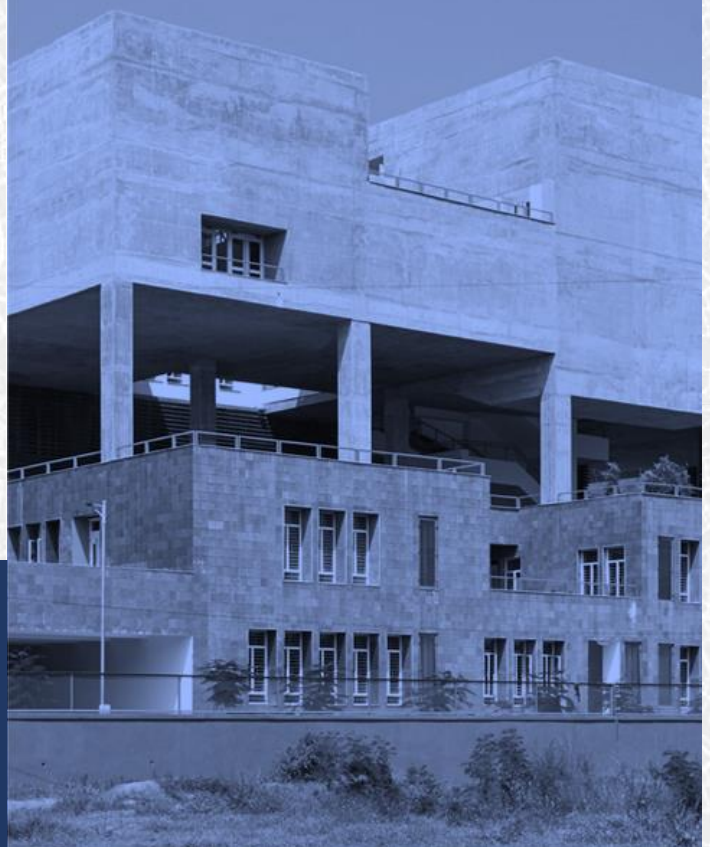
Participants will learn traffic flow analysis, level of service evaluation, and practical use of simulation software. The program also introduces smart mobility and Intelligent Transportation Systems (ITS), preparing attendees to tackle evolving urban transport challenges through effective planning, research, and application.

Target Audience

- Urban and Transport Planners
- Architects & Engineers
- DTCP & Municipal Planners
- Municipal Engineers
- Development officers
- Academicians
- Young Planners
- Researchers

LEARNING OUTCOMES

- **Understand fundamental and advanced traffic management principles.**
- **Become proficient in traditional traffic management techniques**
- **Build and analyze traffic simulations through hands-on use of (Aimsun/Vissim) software.**
- **Integrate simulation results into planning and policy.**
- **Implement effective solutions for real-world traffic challenges.**



Programme Structure

Day 1: Traffic & Transportation Management

Session 1: Introduction to Traffic Management
- Importance of traffic management in urban planning and mobility.
- Basic principles of traffic flow and key management strategies.
- Role of technology in modern traffic management and zoning.

Session 2: Traditional Traffic Management Techniques
- Manual traffic control and signal timing optimization methods.
- Road design and infrastructure improvements for smoother flow.
- Case studies of successful traditional management projects.

Session 3: Introduction to Transport Simulations
- Overview of popular tools (Vissim, SUMO, Aimsun) and their features.
- Applications and benefits of simulation in traffic management.
- Key traffic analysis concepts using software.

Day 2: Traffic Simulation – Aimsun/Vissim (Hands-On)

Session 4: Getting Started with Aimsun/Vissim
- Introduction to interface, features, and workflow.
- Setting up a simple traffic simulation model.
- Case study: basic traffic flow simulation.

Session 5: Hands-On Workshop (Part I)
- Building and running traffic simulations.
- Developing a traffic management plan (individual/group).
- Traffic flow analysis – Part I.

Session 6: Hands-On Workshop (Part II)
- Advanced exercises in traffic simulation.
- Refining and testing traffic management plans.
- Traffic flow analysis – Part II.

Session 7: Advanced Simulation in Aimsun/ Vissim
- Modelling complex traffic scenarios and dynamic systems.
- Signalised intersection operation and control strategies.
- Case study: real-time traffic management solutions.

Day 3: Traffic Management & Intelligent Systems

Session 8: Convergence of Management & Simulation
- Integration of simulation into city master planning.
- Applications for sustainable urban mobility.
- Linking policy and practice in traffic management.

Session 9: Future Trends in Traffic Management
- Emerging technologies and innovations.
- Role of AI and machine learning in simulation.
- Preparing for future traffic and mobility challenges.

Session 10: Intelligent Transport Systems (ITS)
- Traffic incident, congestion, and emergency management.
- ITS tools: ATMS, ANPR, EMS, and smart mobility concepts.
- National and international case studies of ITS in practice.

Session 11: Conclusion
- Recap of programme learnings and key takeaways.
- Open Q&A and networking with peers and experts.
- Certificate distribution and feedback collection.