

**COURSE OUTLINE FOR THE SESSION AUG – DEC 2025-26 (Odd Semester)**
**Faculty Name: Bharathi B**
**Subject with code: Intelligent Transportation System- BCV714A**
**Semester with section: 7 - A**

Modules	Class No	Topics proposed to be covered	Portion to be covered in %	Remarks
<b>Module 1</b>	1	Introduction to Intelligent Transportation	20.00	
	2	Role and Responsibilities		
	3	Advanced Traveller Information System		
	4	Fleet Oriented ITS Services		
	5	Electronic Toll Collection		
	6	Critical issues		
	7	Security		
	8	Safety		
<b>Module 2</b>	9	Architecture-Techniques	40.00	
	10	– ITS Architecture Framework		
	11	Hardware Sensors		
	12	Vehicle Detection Vehicle Detection		
	13	Dynamic Message Sign		
	14	GPRS		
	15	GPS		
	16	Toll Collection		
<b>Module 3</b>	17	Video Detection	60.00	
	18	Virtual Loop – Cameras		
	19	-- ANPR – IR Lighting		
	20	Integrated Traffic Management – Control Centre		
	21	Junction Management Strategies		
	22	ATMS – Advanced Traveler Information Systems (ATIS)		
	23	Route Guidance – Issues - Historical – Current – Predictive Guidance		
	24	Route Guidance – Issues - Historical – Current – Predictive Guidance.		
	25	Travel Information		

<b>Module 4</b>	26	Pre Trip and Enroute Methods	80.00	
	27	Basic ATIS Concepts- Smart Route System		
	28	Data Collection		
	29	Dissemination to Travelers		
	30	Evaluation of Information		
	31	Value of Information – Business Opportunities		
	32	Value of Information – Business Opportunities		
<b>Module 5</b>	33	Automated Highway Systems	100.00	
	34	Vehicles in Platoons		
	35	Integration of Automated Highway Systems		
	36	ITS Programs in the World		
	37	Overview of ITS implementations in developed countries		
	38	Overview of ITS implementations in developed countries		
	39	ITS in developing countries		
	40	ITS in developing countries		

**List of Text Books**
**Books:**

1. Traffic Engineering and Transportation Planning – L.R. Kadiyali, Khanna Publishers
2. Fundamentals Of Transportation Engineering - C.S.Papacostas, Prentice Hall India.
3. Transportation Engineering – An Introduction, C.Jotin Khisty, B. Kent Lall
4. Fundamentals Of Traffic Engineering, Richardo G Sigua
5. Handbook Of Road Safety Measures, Second Edition, Rune Elvik, Alena Hoye, Truls Vaa, Michael Sorenson
6. Road Safety By NCHRP