
	Tulsiramji Gaikwad-Patil College of Engineering and Technology Wardha Road, Nagpur-441 108 NAAC Accredited with A+ Grade (An Autonomous Institute Affiliated to RTM Nagpur University, Nagpur)	
Program: B.Tech. Civil Engineering		
Semester VII		

BCE4706: Program Elective-V (High Speed Rail Engineering)

	Course Outcomes	CL	Class Sessions
BCE4706.1	Explain High speed rail engineering, network, comparison, Development, design and construction, passenger transport systems , elements of HSR technology.	4	9
BCE4706.2	Infer Key elements and subsystems including: communication and control, Polyamide guide ,Construction Testing , Loss prevention - Lessons learnt and recommendations,	4	9
BCE4706.3	Contrast track system and civil infrastructure loss, Channel Tunnel Rail Link, Loss prevention – lessons learnt and recommendation, Tunnelling risks,	4	9
BCE4706.4	Compose HSR stations and rolling stock maintenance facilities, Parameters, Construction Method , Operation Method, Interoperability and Gauge Selection, Levels on Services / Facilities	6	9
BCE4706.5	Write Formulation of HSR Basic Plan in India, Necessity, Traffic Frequency, Countermeasures against Earthquakes and Natural Disasters, Basic Technical Standard and System Selection, Loading gauge and Structural gauge, Platform Clearance, Track Spacing, Gradients, Track Structure, Rolling Stock.	6	9