Module Code	CE7T04
Module Name	T4: Intelligent Transportation Systems
ECTS Weighting[1]	5 ECTS
Semester taught	Semester 1
Module Coordinator/s	Asst. Prof. Bidisha Ghosh (bghosh@tcd.ie)

Module Learning Outcomes with reference to the **Graduate Attributes** and how they are developed in discipline	On successful completion of this module, students should be able to: LO1. Critically appraise the role of intelligent transportation systems. LO2. Analyse traffic data. LO3. Develop understanding of advanced, data-driven accident management systems LO4. Utilise microsimulation software (VISSIM) to evaluate traffic network design. **Graduate Attributes: levels of attainment** To act responsibly - Enhanced To think independently - Enhanced To develop continuously - Attained To communicate effectively - <mark>Not embedded</mark>
Module Content	This module focusses on the role of data, analysis and evaluation in transportation engineering. The objectives are: - Introduction to Intelligent Transportation Systems - Modelling traffic using software and theories - Traffic data modelling This module will include: • Introduction to intelligent transportation system • Training of VISSIM • Traffic data analysis and modelling • Incident Management Scheme Design • Traffic Forecasting

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[1] TEP Glossary

Teaching and Learning Methods	Teaching strategies • Core content via lecture (direct) • Individual Assignments • Software training session

Assessment Details[2] **Please include the following:** • **Assessment Component** • **Assessment description** • **Learning Outcome(s) addressed** • **% of total** • **Assessment due date**	Assessment Component	Assessment Description	LO Addressed	% of total	Week due
		Examination		75%	
		Assignment		25%	

Reassessment Requirements	None

Contact Hours and Indicative Student Workload[2]	**Contact hours: Lectures 24 hours**
	Independent Study (preparation for course and review of materials): Directed Learning 10 hours
	Independent Study (preparation for assessment, incl. completion of assessment): **Assignments 40 hours** **Autonomous Learning 26 hours**

Recommended Reading List	To be provided in the lectures
Module Pre-requisite	Engineering or Sciences Primary Degree
Module Co-requisite	
Module Website	

Are other Schools/Departments involved in the delivery of this module? If yes, please provide details.	No
Module Approval Date	
Approved by	
Academic Start Year	28th^ت September 2020
Academic Year of Date	2020/2021