IRC 112: Limit State Design of RCC Bridges

COURSE INFORMATION

BACKGROUND	
Till now, almost all of the RCC bridges designed are based on IRC 21-2000 "CODE OF PRACTICE FOR ROAD BRIDGES SECTION: III CEMENT CONCRETE (PLAIN AND REINFORCED)", which is based on the Working Stress principle. In 2011, IRC 112 was introduced to design both reinforced and pre-stressed concrete bridges based on Limit Stress principle. The code was amended and finalized in 2014 and IRC SP-115, the explanatory handbook to IRC 112, has also been published in 2015.	
Accordingly, IRC 6 has also been updated in 2017 with different load factors for different types of limit states.	And IRC 78 has also been revised in 2014.

CONTENTS

Day 1	Introduction to the important codal provisions of IRC 112 related with design of a RCC T Girder Bridge
	Flexure and Shear Capacity
Day 2	Limit state of Serviceability (Deflection and Crack)
	Sample calculation of a 25.0 m simply supported RCC T-Girder bridges
	Example of RCC design for an abutment with the open foundation

COURSE TITLE	IRC 112: Limit State Design of RCC Bridges
PURPOSE	The purpose of the workshop is to initiate an Awareness of the IRC 112 and design of RCC bridges based on Limit State Principle.
DURATION	Two half days
TARGET GROUP	Civil Engineers (at least Bachelor) with some experiences of designing RCC bridges from government entities, consulting firms, contractors and Project groups (RCC bridges) from various engineering colleges
COURSE OBJECTIVES	At the end of training the participants will be able to do the following: ▪ Introduce the important codal provisions of IRC 112 related with design of a RCC T-Girder Bridge ▪ Generate knowledge on Flexure and Shear Capacity ▪ Introduce Limit state of Serviceability (Deflection and Crack) ▪ Generate knowledge for sample calculation of a 25.0 m simply supported RCC T-Girder Bridge
METHODOLOGY	During this course wide variety of methods will be used. Illustrated talk, discussion, group work and individual practice for sample calculation will be used. Principle of adult learning will guide the overall process.
REGISTRATION	Registration fee NRs. 1000/ is applicable and will be collected from the selected participants.