



भारतीय राजमार्ग अभियन्ता अकादमी
 (सड़क परिवहन एवं राजमार्ग मंत्रालय, भारत सरकार)
Indian Academy of Highway Engineers
 (Ministry of Road Transport and Highways, Govt. of India)

Design of Cable Stayed and Extra Dosed bridges

Day 1	
Time Period	Description of Topic
Day-01	
09.45-13.00	Site Selection and Hydraulic Calculations for bridges <ul style="list-style-type: none"> ❖ Site Selection for bridges ❖ Hydrology and Hydraulic Calculations ❖ HFL determination methods ❖ Determination of design discharge through various methods ❖ Span Arrangements ❖ Determination of Afflux and Linear Waterway (for alluvial plain as well as for hilly terrain) ❖ Fixing of FRL and factors considered thereof ❖ Scour Depth calculations for bridges ❖ Various IRC codal provisions of IRC:SP-13 ❖ Case study for hydraulic calculation and site selection
14.00-17.15	Components of Cable Stayed & Extra Dosed Bridge and Selection Criteria <ul style="list-style-type: none"> ❖ Components of a bridge for different structural arrangements ❖ Type of bridges and selection criteria ❖ Selection criteria for foundations ❖ Selection criteria for substructure and earth retaining structures ❖ Selection criteria for superstructure ❖ Selection criteria for bearings ❖ Selection criteria for expansion joints
Day-02	
09.45-13.00	Design Concepts of Long Span Bridges <ul style="list-style-type: none"> ❖ Suspension Cable Bridges ❖ Cable Stayed Bridges ❖ Extra Dosed Bridges ❖ Bow String Bridge ❖ Steel and Composite Bridges
14.00-17.15	Design Loads for bridges <ul style="list-style-type: none"> ❖ Design loads (Dead Load, Super Imposed Load, Live Load, Wind Load, Seismic loads, earth pressure, water pressure, buoyancy force etc.) for bridges as per IRC: 6

Please note: All correspondence should be addressed to the Director by designation only

A-5, Institutional Area, Sector-62, Noida (UP) – 201301 (India)
 Tel 0120-2400085-86, 2405006-9, Fax 2400087
 Email: director.iahe@gmail.com Website: iahe.org.in



BHARATMALA
ROAD TO PROSPERITY



भारतीय राजमार्ग अभियन्ता अकादमी
(सड़क परिवहन एवं राजमार्ग मंत्रालय, भारत सरकार)
Indian Academy of Highway Engineers



Day-03	
09.45-13.00 + 14.00-17.15	Cable Stayed Bridge <ul style="list-style-type: none"> • Structural Analysis, Design and Detailing • Construction Considerations • Inspection, Maintenance & Structural Health Monitoring
Day-04	
09.45-13.00 + 14.00-17.15	Extra Dosed Bridge <ul style="list-style-type: none"> • Structural Analysis, Design and Detailing • Construction Considerations • Inspection, Maintenance & Structural Health Monitoring
Day-05	
09.45-13.00 + 14.00-17.15	<ul style="list-style-type: none"> ❖ Analysis Methods and Softwares ❖ Illustrative Example ❖ Case Studies
15.45-17.15	Test, Feedback, Concluding and Distribution of Certificates

Please note: All correspondence should be addressed to the Director by designation only

A-5, Institutional Area, Sector-62, Noida (UP) – 201301 (India)

Tel 0120-2400085-86, 2405006-9, Fax 2400087

Email: director.iahe@gmail.com Website: iahe.org.in