

Online Technical Lecture
“Lessons Learned From Bridge Bearing Failures”

on 13th April 2020 at 4.00 pm

by Alok Bhowmick, FNAE,
International PE (India)

Brief profile of the speaker:

Mr Bhowmick is an eminent structural engineer in India. He is a Fellow of INAE and an International Professional Engineer of Institution of Engineers (India). He is President of Indian Association of Structural Engineers (IAStructE). He has more than 39 years of experience in the field of Structural Engineering. He is actively involved with many associations and institutions in furthering the cause of structural engineering. He has written and published more than 60 technical papers in various national / international journals. He is the recipient of 24th S. B. Joshi Memorial Award for the Year 2018 for “Excellence in Bridge & Structural Engineering”.

Brief of the topic:

Design trend in bridges have undergone a paradigm shift in India over last two decades. Fast paced construction is the order of the day. The pace of urban development in infrastructure growth has been phenomenal and there is an acute scarcity of skilled manpower in all fronts. The fundamental principle that drives the need for fast paced construction is economic and therefore it is difficult to stop this pace of development. The only way to cope with the situation is to increase capacity.

This fast track construction with lack of skilled workforce in the country has led to unsafe construction in general. In last 10 years we have seen number of failures and many of them are caused due to damage / failure of bearings. Quality control and quality assurance is required in Design, Manufacture, Installation as well as maintenance of bridge bearings. The main reason of modern bridge bearing damages is that they are mechanical devices and not construction products, for which the tolerance requirements are more demanding. Malfunctioning of bearings can lead to faster wear of bearing elements. Under extreme conditions they can even block the displacements and rotations.

This technical lecture is aimed to give a brief about the various causes of bearing failures. Examples of the bridge bearing deteriorations or even failures and lessons drawn from them are presented in the presentation. The presentation is meant for bridge engineers who are familiar with the design / manufacture / installation / supervision of bridge bearings. In fact this presentation is a sequel to his earlier presentation made titled “BRIDGE BEARINGS – STATE OF THE ART” in one of the monthly technical lecture of IAStructE in New Delhi, way back in December 2016.

Anyone interested to go through the previous presentation may download the link :
<http://iastructe.co.in/lecture/BRIDGE-BEARINGS-by-Mr-Alok-Bhowmick.pdf>

How to join:

1. Online Lecture will use Google Hangouts Meet.
2. A maximum 30 numbers of participants will be registered.
3. Interested participants may fill the following google form and will be contacted by coordinator.
<https://forms.gle/UjMJmsDx932wrETW8>
4. Queries if any may be addressed to below mentioned coordinator contact.

Coordinator:

Dr. Anal Sheth

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