

Dear Readers,

We bring to you the February edition with varied contributions from academia and professionals. This edition is guest edited by Prof. Pasala Dinakar. He is an Associate Professor and Head of School of Infrastructure at Indian Institute of Technology (IIT) Bhubaneswar. He is also the Chairman of Indian Concrete Institute (ICI), Bhubaneswar Chapter and is an active consultant to varied industries in the field of design, repair and rehabilitation and construction.

Durability, corrosion of steel in concrete and waste utilisation in concrete are his specialisation areas and has published several papers in in several national and international journals.

Happy Reading!

Production Editor
Indian Concrete Journal

**Dear Colleagues,**

We are extremely happy to bring to you the February edition of the Indian Concrete Journal (ICJ). This edition has research and technical papers on varied themes of concrete and its behavior the retrofitting of box culvert, high strength concrete development using various admixtures and its behavior on creep, shrinkage and shear performance to extradosed bridges and the use of air-cooled ferrochrome slag (ACFS) as a coarse aggregate in concrete composites. A brief introduction of the papers in this issue are being presented here.

First paper by Dhiman and Maitra, has a 3D finite element model developed for a typical box culvert for different levels of deterioration along with a retrofitting strategy with fiber reinforced polymer (FRP). The analysis shows a significant improvement in performance of the retrofitted box culvert and can be considered as an effective retrofitting strategy.

Paper by Chand and his co-workers evaluates the mechanical and shear properties of high strength steel fiber reinforced concrete by conducting various experimental investigations in a comprehensive way. The optimum dosages of fly ash, silica fume and fiber were ascertained to attain the max possible high strength concrete.

Yet another interesting experimental study has been carried out by Ojha and his team on creep and shrinkage behavior of high strength concrete for application in high rise buildings. For the study, 45 and 100 MPa concretes were considered and fly ash and silica fume were used as admixtures. The experimentally obtained creep and shrinkage strain values are compared with various international codes, and the need for the revision in creep coefficient in Indian Standard code is emphasizes.

Paper on bridges by Heggade emphasizes the need of extradosed bridges as the extension of girder bridges and has a striking visual resemblance to cable stay bridges while giving the option to the designer for enhancing the aesthetic factors.

The final paper on the use of air-cooled ferrochrome slag (ACFS) as a coarse aggregate on the mechanical performance of concrete studied by Acharya and Patro. The comparison of results establishes the supremacy of ACFS concrete beams over conventional concrete beams and indicates the suitability of ACFS in making structural concrete.

Finally, the successful compilation of this edition is largely owing to the efforts of the authors, reviewers, and I thank each one of them for their valuable contribution. We believe research investigations not restricted to the laboratories but those applied in path breaking construction projects as well; are of immense of immense value to the construction community and hence we encourage academicians and professionals to share their contributions on emerging topics. We look forward to your valuable feedback on this edition, please write to us at: editor@icjonline.com.

Pasala Dinakar
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