


## Department of Applied Mechanics

<b>Name</b>  Dr L. M. Gupta  Professor, Chairman SPC	
<b>Area of Specialization:</b>  Steel Structures, Pre-Stressed Steel Structures, Rehabilitation and Retrofitting.	
<b>Prominent journal paper publications</b>  <ol style="list-style-type: none"><li>1. Gupta Mohan, Gupta L.M. Discussion: AISC LRFD Rules for Block Shear in Bolted Connections. - A Review Journal of American Institute of Steel Construction, 4th Quarter 2002, USA, Vol. 39, No. 4, PP.240.</li><li>2. Gupta L.M., Ronghe G. N., Khatri A. P., Discussion on behaviour of pre-stressed steel beams, Journal of Structural Engineering, ASCE, June 12, PP. 838.</li><li>3. Joshi A. S., Gupta L. M., Elasto-plastic Response of Bridge Piers due to Vehicle Collision. Journal of Str. Eng. June-July 12, Vol. 39, PP.193-209.</li></ol>	
<b>Other prominent publications (Conf.)</b>  Ronghe G. N., Gupta L. M. Study of Tendon profile on Analysis and Design of Pre-Stressed Steel Beams, proceedings of International Conference on Advances in Steel Structures, Hong kong, 15-17 Dec, 1999, PP. 921-929.	

### Ph D research students guided, research topics, brief statement of achievements

Sr. No.	Name of Scholar	Title of Thesis	Year of Award
1	G.N. Ronghe	“Parametric Study of Pre-Stressed Steel Structures”	2003

		<b>Parametric Study of Pre-stressed Steel Beams for various profiles has been carried out. The result obtained shows a great saving in cost of steel Structures.</b>	
<b>2</b>	<b>Mohan Gupta</b>	<b>“Effective Area of Angle section subjected to Tension”</b>	<b>2004</b>
		<b>Behaviour of Steel Angle under Tension has been studied. The different modes of failures of angle section, decides the load carrying capacity of section.</b>	
<b>3</b>	<b>N.D. Deshpande</b>	<b>“Optimization of Silo Shape”</b>	<b>2005</b>
		<b>Effective Utilisation of structural shape of Silo gives a great deal of promise in saving of material.</b>	
<b>4</b>	<b>A.M.Pande</b>	<b>“Parametric Studies on behaviour of fly ash as Pozzolanic material”</b>	<b>2007</b>
		<b>The Mechanical problem of disposal of fly ash is been workout</b>	
<b>5</b>	<b>R R Harte</b>	<b>“Critical Study of Double layer grid”</b>	<b>2010</b>
		<b>New Shape of Steel grid Structures is useful for large span buildings.</b>	
<b>6</b>	<b>N M Hedaoo</b>	<b>“Study of Concrete Composite Slab with profile Steel decking”</b>	
		<b>The new concept of metal deck floor will help for fast brick construction</b>	
<b>7</b>	<b>A S Joshi</b>	<b>“Analysis of Bridge Pier for Collision”</b>	<b>2013</b>
		<b>Effect of Vehicle collision on piers studied, which help in reducing accidents in bridges</b>	

8	A Y Vyavahare	Investigation into structural steel Semi-rigid Connection	In progress
		Components of the connection introducing semi-rigidity are identified and component based mechanical model for prediction of nonlinear behaviour of connection is proposed.	
9	A P Khatri	Lateral torsional buckling of pre-stressed steel beam	In progress
10	V G Kondekar	Structural Properties of Gadhi Soil masonry	In progress
11	Jyoti Bhilave	Study of steel angle section subjected to compression	In progress
12	S. Morkhade	Study of beams with opening in web	In progress

### **Sponsored research projects, brief statement of achievements**

- Use of Fly ash as building material – A research project (R&D) funded by MHRD, Govt. Of India, New Delhi, was completed (Amount Rs. 3.0 Lakhs)
- Modernization of Structural Laboratory Scheme (MODROB) was sanctioned by MHRD, Govt. Of India, New Delhi, was completed (Amount Rs. 10.0 Lakhs)
- Study of Metal Deck Floor system, sponsored project by Institute of Steel Development and Growth (INSDAG), Kolkata (Amount Rs. 1.7 Lakhs)

### **Consultancy research projects, brief statement of achievements**

**Achievement:** various types of consultancy work carried out is helpful in teaching the actual problems occurred in the field. It also helps update the knowledge in area of structural engineering.

### **Other capabilities (administrative and other achievements)**

- **HOD**
- **Dean (Planning and Finance)**
- **Chairman SPC**
- **In-charge Director**
- **Chairman Admission Committee**
- **Chairman SPC**