Q What are the major advantages of using steel vis-à-vis a conventional material?

A Steel is a factory made quality product which has higher strength-to-weight ratio, it is highly reliable and lends a consistent quality construction. Overall, it is light weight and leads to economy of foundations due to less weight and reduced earthquake forces. It also reduces the human component, and hence reduces errors to a greater extent. Steel provides much better life and higher scrap value, and apart from this it also provides faster construction, and hence, quick returns on investments can be banked upon. Steel gives neat and clean construction sites, and provides better material management.

Q How can structural steel be innovatively used in design aesthetics and at the same time offer economic solutions?

A Light gauge sections can be innovatively used as it offers flexibility of shapes. Reduced weight of structures provides more options of functional spaces. Thinner and slender members used as tension members and stressed diagrids are fantastic architecture friendly products. Galvanization and other coatings encourage use of exposed sections. Stainless steel is becoming popular and gives better choice to architects.

Q What is your take on variety of steel sections, grades provided by our steel producers for various demand of creativity?

A Cold forming can produce all required sections. However, in hot rolled side, available sections are adequate. Grades available in country ranging from 250MPa to 550MPa are sufficient. The need now is for popularizing the use and development of user friendly details.

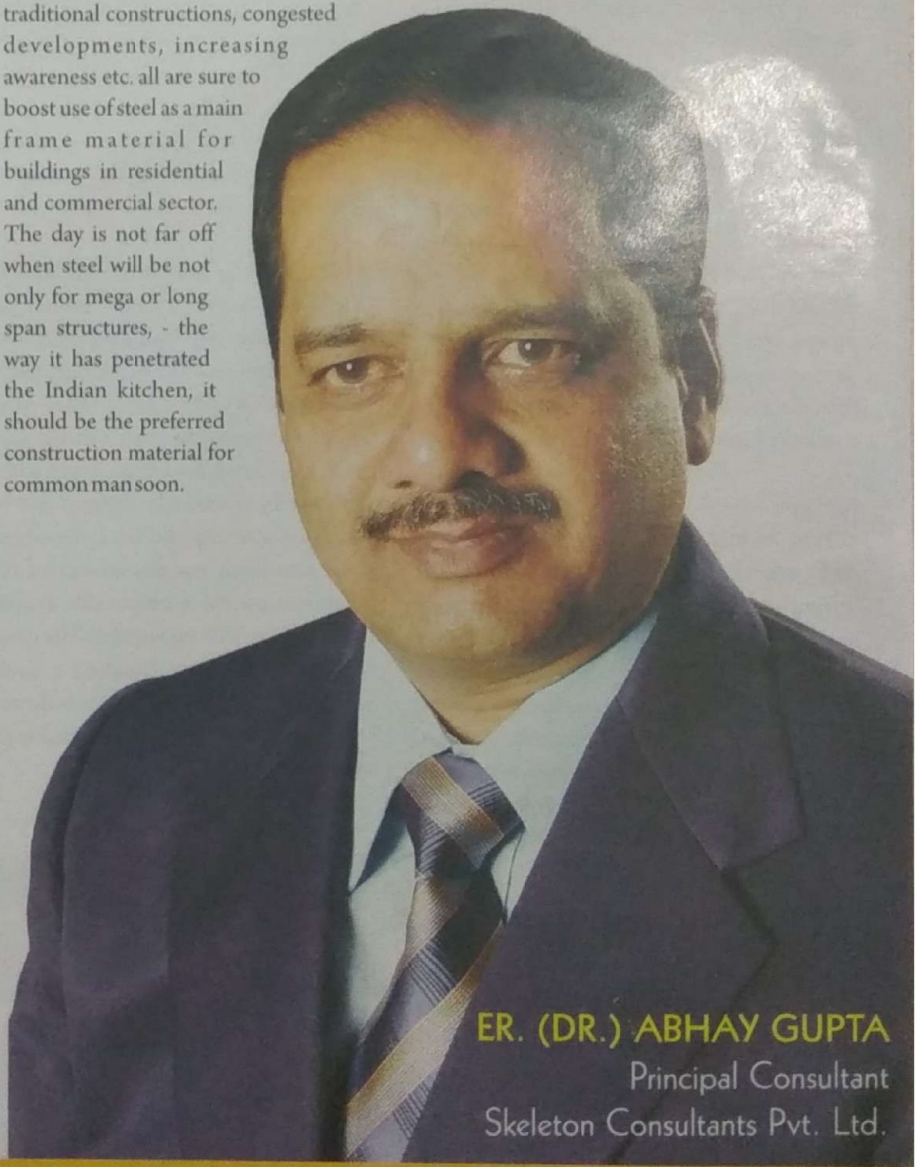
Q How far has steel construction permeated the Indian scene? What trend are we going to witness in next 5 to 7 years as designing structures in steel is concerned?

A Encouraging trends! Increasing cost of labour, poor quality of RCC construction, time consumed in traditional constructions, congested developments, increasing awareness etc. all are sure to boost use of steel as a main frame material for buildings in residential and commercial sector. The day is not far off when steel will be not only for mega or long span structures, - the way it has penetrated the Indian kitchen, it should be the preferred construction material for common man soon.

Q Could you give us a brief about the changes that have taken place in the industry since the last decade, as far as structural engineering is concerned?

A Development of several new airport terminal buildings has popularized use of steel to common man. It has moved very slowly from industrial areas and remote bridges to city centers. Countable buildings have been made in the country, but, these need to be publicized. Young engineers coming out of graduation should be educated. User friendly documents at reasonable cost and detailing manpower capacity building needs to be taken up. The ongoing crude practice of welding need to be thoroughly upgraded through law. ■

Cold forming can produce all required sections of steel, however, in hot rolled sections, the available sections are adequate as of now. The grades available in our country ranging from 250MPa to 550MPa are pretty much sufficient, although the need now is for popularizing the use and development of user friendly details, feels **Er. (Dr.) Abhay Gupta,** Principal Consultant, Skeleton Consultants Pvt. Ltd.



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there's encouraging trend ahead